Appendix A

IRP Process

CASCADE NATURAL GAS CORPORATION
A Subsidiary of MDU Resources Group, Inc.
In the Community to Serve®

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December 15, 2011

Mr. David Danner, Executive Director & Secretary
Washington Utilities & Transportation Commission
P.O. Box 47250
Olympia, WA 98504-7250

RE: Cascade Natural Gas Corporation's 2012 Integrated Resource Plan Work Plan

Pursuant to WAC 480-90-238, enclosed for filing is Cascade Natural Gas Corporation's Work Plan for its 2012 Integrated Resource Plan (IRP or Plan). This document provides an outline of the content for the 2012 Plan, the timing of the plan development and the method for assessing potential resources.

If you have any questions regarding the Work Plan, please contact me at (509) 734-4589.

Sincerely,

Mark Sellers-Vaughn
Manager, Supply Resource Planning

Enclosures

Cascade Natural Gas Corporation
2012 IRP Work Plan

Cascade Natural Gas Corporation's ("Cascade" or "the Company") Work Plan for its 2012 Integrated Resource Plan ("IRP") is filed pursuant to the Washington Utilities and Transportation Commission (WUTC) IRP rules (WAC 480-90-238).

Purpose of the Integrated Resource Plan/Key Issues for 2012 IRP
The primary purpose of Cascade's long-term resource planning process has been, and continues to be, to inform and guide the Company's resource acquisition processes, consistent with the rule (WAC 480-90-238). Input and feedback from the Company's Technical Advisory Group (TAG) will continue to be an important resource to help ensure Cascade's IRP is developed from a broader perspective than Cascade could have on its own.

Analytical methods will be similar to those used to develop the Company's 2010 and 2011 IRPs, which includes the use of a linear programming optimization model (SENDOUT) to solve natural gas supply and transportation optimization questions, along with the use of Monte-Carlo simulations to estimate the impact of various uncertainty factors.

Outline of IRP Content:
The following is an outline of the Company's 2012 IRP plan. This list is based on the formats used in Cascade's 2010 IRP. Organizational structure of the final IRP may be revised based on results of analysis and feedback received through the planning process.

I. Executive Summary
II. Introduction & Planning Overview
III. Demand Forecast
IV. Distribution System Enhancements
V. Demand Side Resources
VI. Supply Side Resources
VII. Resource Integration
VIII. Two-Year Action Plan
IX. Appendices

2012 IRP Timeline
The following is Cascade's tentative 2012 IRP timeline:

- 2012 IRP Work Plan filed with WUTC: December 15, 2011
- Develop Demand Forecast: January through March 2012
- Distribution System Planning Analysis: April through June 2012
- Demand Side Resource Analysis: January through June 2012
- Gas Supply Analysis: January through June 2012
- Integration of Supply and Conservation Resources: June through July 2012
- Public Process: Technical Advisory Group Meetings (tentative dates)
    - TAG 1: Key Assumptions (Price Forecast & Economic Indicators) – late February/early March 2012
    - TAG 2: Demand Forecast Results/Resource Alternatives (Supply/Demand Resources) –early April 2012
    - TAG 3: Distribution System Planning/Preliminary Modeling of Conservation Supply Curves, Resource Alternatives (Supply/ Demand Side Resources-Continued) –early May 2012
    - TAG 4: Integration/ 2 year Action Plan –early June 2012
- File Draft 2012 IRP: July 31, 2012

- TAG 5 (if needed): Draft IRP Discussion –late August 2012
- Comments to Company on Draft Plan from parties due October 15, 2012
- Final 2012 IRP Filed: December 14, 2012

Planning Assumptions

Information needed to perform analysis will be gathered and input assumptions developed by late May 2012. This will include detailed definitions of alternative scenarios and all primary input assumptions for demand forecasting and resource modeling. Additional planning information will be assimilated into the analytical process and planning information that is not incorporated into the modeling process will continue to be assessed.

Resource Analysis:

Natural gas analysis will include long-term optimization and stochastic analysis under the same planning scenarios, including natural gas energy efficiency and supply alternatives.

Draft 2012 IRP and Review Period:

Cascade is planning to have its IRP draft plan distributed for initial feedback to the group members by July 31, 2012. Given Cascade's commitment to facilitate and communicate with members of the Technical Advisory Group, the draft IRP content and its key assumptions will be discussed with the Technical Advisory Group during the TAG sessions. Any feedback is due to the Company by October 15, 2012 to give the Company sufficient time to incorporate such feedback as needed into the final plan.

Final 2012 IRP Filed December 14, 2012

Cascade Natural Gas Corporation
2012 IRP Timeline

<table>
<tr><td>2011</td><td colspan="13">2012</td></tr>
<tr><td>December</td><td>January</td><td>February</td><td>March</td><td>April</td><td>May</td><td>June</td><td>July</td><td rowspan="6">7/31: Submit Draft IRP</td><td>August</td><td>September</td><td>October</td><td>November</td><td>December</td></tr>
<tr><td rowspan="5">File Work Plan with WUTC</td><td colspan="2">Develop Demand Forecast</td><td colspan="2">Distribution System Planning</td><td colspan="2"></td><td rowspan="3">Review</td><td rowspan="3">10/15: Comments Deadline</td><td rowspan="3">Revisions</td><td rowspan="3">12/14: Submit Final IRP</td></tr>
<tr><td colspan="6">Demand Side Resource Analysis</td><td></td></tr>
<tr><td colspan="6">Gas Supply Analysis</td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td colspan="2">Resource Integration</td><td rowspan="2">TAG 5</td><td rowspan="2"></td></tr>
<tr><td></td><td></td><td>TAG 1</td><td>TAG 2</td><td>TAG 3</td><td>TAG 4</td><td></td></tr>
</table>

2012 TAG Meetings

Meeting	Topic	Tentative Date	Tentative Location
TAG 1	Key Assumptions (Price Forecast & Economic Indicators)	March 6, 2012	SEATAC Airport
TAG 2	Demand Forecast Results & Resource Alternatives Part I (Supply/Demand Resources)	April 10, 2012	SEATAC Airport
TAG 3	Distribution System Planning, Resource Alternatives Part II, Preliminary Modeling for Conservation Supply Curves	May 8, 2012	SEATAC Airport
TAG 4	Integration/ 2 year Action Plan	June 5, 2012	CNGC Kennewick
TAG 5	Draft IRP Discussion	August 24, 2012	Olympia

ORDER	TASK	PRINCIPLE PARTICIPANTS	START	END	COMPLETED	CATEGORY
10	2012 IRP Work Plan filed with WUTC: December 15, 2011	MSV	12/13/2011	12/15/2011	12/15/2011	IRP DOCUMENT
20	Request installation of version SENDOUT ver 14 to MSV, A Johnson, L Hansen, P Archer	MSV	2/13/2012	2/13/2012		SENDOUT
30	Publish and Distribute final WA IRP TAG meeting schedule	MSV	2/13/2012	2/15/2012		TAG
40	Develop Demand Forecast: January through March 2012	MSV, A Johnson, C Robbins				DEMAND FORECAST
50	Compare CNGs approach to PSE, Avista and NWN--report primary differences	A Johnson	2/13/2012	2/20/2012		DEMAND FORECAST
60	Review Woods and Poole data	MSV, A Johnson, P Archer	2/13/2012	2/20/2012		DEMAND FORECAST
70	Determine whether or not to use 2011 IRP demand forecast	MSV, M Parvinen, B Morman	1/1/2012	2/24/2012		DEMAND FORECAST
80	Development of recent economic events from Woods and Poole, etc	A Johnson	2/13/2012	2/13/2012		DEMAND FORECAST
90	IRP Team Meeting	MSV, A Johnson, L Hansen, C Robbins, M Parvinen, P Archer, B Morman, A Spector, M Hardesty, J Abrahamson, J Silveira	2/23/2012	2/23/2012		TEAM
100	Annual Growth and use per customer forecast development	A Johnson	2/20/2012	3/2/2012		DEMAND FORECAST
110	Determine price forecast methodology	MSV, C Robbins, L Hansen	1/1/2012	3/2/2012		PRICE FORECAST
120	Slides for TAG #1 (Demand Key Assumptions, Price Forecasts, Updates, New Requirements)	MSV, A Johnson, L Hansen	3/5/2012	3/6/2012		TAG
130	Technical Advisory Group Meeting #1 (Demand Key Assumptions, Price Forecasts, Updates, New Requirements)	MSV, A Johnson, L Hansen, C Robbins, M Parvinen, P Archer, B Morman, A Spector, M Hardesty, J Abrahamson	3/8/2012	3/8/2012		TAG
140	Demand Side Resource Analysis: January through June 2012	MSV, A Spector, J Abrahamson				DEMAND FORECAST
150	IRP Team Meeting	MSV, A Johnson, L Hansen, C Robbins, M Parvinen, P Archer, B Morman, A Spector, M Hardesty, J Abrahamson, J Silveira	3/22/2012	3/22/2012		TEAM
160	Peak Day Foreast Runs and reviews	MSV, A Johnson, L Hansen	3/6/2012	4/6/2012		DEMAND FORECAST
170	Average Day Forecast runs and reviews	MSV, A Johnson, L Hansen	3/6/2012	4/6/2012		DEMAND FORECAST
180	Confirm 2011 SENDOUT data has rolled into ver 14	MSV, A Johnson, L Hansen, P Archer	3/6/2012	3/9/2012		SENDOUT
190	Development and explanation of forecast uncertainties	MSV, A Johnson, L Hansen	3/6/2012	4/6/2012		DEMAND FORECAST
200	Forecast completion in SENDOUT	MSV, A Johnson, L Hansen	3/9/2012	4/6/2012		DEMAND FORECAST
210	Capture current supply resoruce options	MSV, C Robbins, L Hansen	1/1/2012	4/6/2012		SUPPLY RESOURCE
220	Capture current capacity resource options	MSV, C Robbins, L Hansen	1/1/2012	4/6/2012		SUPPLY RESOURCE
230	Identify need for financial derivatives	MSV, C Robbins, L Hansen	1/1/2012	4/6/2012		SUPPLY RESOURCE
240	Confirm the portofolio purchasing strategy	MSV, C Robbins, L Hansen	1/1/2012	4/6/2012		SUPPLY RESOURCE
250	Identify potential resource options	MSV, C Robbins, L Hansen	1/1/2012	4/6/2012		SUPPLY RESOURCE
260	Slides for TAG #2 (Demand Forecast, Resources --Current, Altenatives)	MSV, A Johnson, L Hansen	4/9/2012	4/10/2012		TAG

ORDER	TASK	PRINCIPLE PARTICIPANTS	START	END	COMPLETED	CATEGORY
270	Technical Advisory Group Meeting #2 (Demand Forecast, Resources --Current, Altenatives)	MSV, A Johnson, L Hansen, C Robbins, M Parvinen, P Archer, B Morman, A Spector, M Hardesty, J Abrahamson	4/12/2012	4/12/2012		TAG
280	Develop 2 year action plan update	MSV, A Spector, J Abrahamson, M Parvinen, B Morman, P Archer		4/17/2012		IRP DOCUMENT
290	IRP Team Meeting	MSV, A Johnson, L Hansen, C Robbins, M Parvinen, P Archer, B Morman, A Spector, M Hardesty, J Abrahamson, J Silveira	4/26/2012	4/26/2012		TEAM
300	Identify potential DSM Measures and their costs	MSV, A Spector, J Abrahamson		5/4/2012		CONSERVATION
310	Results of studies	A Spector, J Abrahamson		5/4/2012		CONSERVATION
320	Develop conservation summary	A Spector, J Abrahamson		5/4/2012		CONSERVATION
330	DSM implementaio issues and uncetantinly	A Spector, J Abrahamson		5/4/2012		CONSERVATION
340	Environmental Externalities	MSV, A Spector, J Abrahamson		5/4/2012		CONSERVATION
350	Other DSM	A Spector, J Abrahamson		5/4/2012		CONSERVATION
360	Distribution System Planning Analysis: April through June 2012	M Hardesty		5/4/2012		DISTRIBUTION YSYS
370	Distribution System Modeling	M Hardesty		5/4/2012		DISTRIBUTION YSYS
380	Engineering Modeling by Town	M Hardesty		5/4/2012		DISTRIBUTION YSYS
390	Distribution Planning Key Findings	M Hardesty		5/4/2012		DISTRIBUTION YSYS
400	Slides for TAG #3 (Distrib Planning, Conserv Curves, Scenario Ideas)	M Hardesty, MSV, A Spector, J Abrahamson, A Johnson	5/7/2012	5/8/2012		TAG
410	Technical Advisory Group Meeting #3 (Distrib Planning, Conserv Curves, Scenario Ideas)	MSV, A Johnson, L Hansen, C Robbins, M Parvinen, P Archer, B Morman, A Spector, M Hardesty, J Abrahamson	5/10/2012	5/10/2012		TAG
420	IRP Team Meeting	MSV, A Johnson, L Hansen, C Robbins, M Parvinen, P Archer, B Morman, A Spector, M Hardesty, J Abrahamson, J Silveira	5/23/2012	5/23/2012		TEAM
430	Gas Supply Analysis: January through June 2012	MSV, C Robbins, L Hansen, A Johnson		6/8/2012		INTEGRATION
440	Model resource integration scenarios and simulations	MSV, A Johnson, L Hansen		6/8/2012		INTEGRATION
450	Criteria for determining optimial portfolio	MSV, M Parvinen, B Morman		6/8/2012		INTEGRATION
460	Finalize base price forecast	MSV, A Johnson, L Hansen		6/8/2012		PRICE FORECAST
470	Run monte carlo simulations for weather and price uncertainty	MSV, A Johnson, L Hansen		6/8/2012		PRICE FORECAST
480	Confirm modeling plan	MSV, A Johnson, L Hansen, C Robbins, M Parvinen, P Archer, B Morman		6/8/2012		INTEGRATION
490	Slides for TAG #4 (Integration & 2 Yr Plan)	MSV, A Johnson, L Hansen, C Robbins, P Archer	6/11/2012	6/12/2012		TAG

ORDER	TASK	PRINCIPLE PARTICIPANTS	START	END	COMPLETED	CATEGORY
500	Technical Advisory Group Meeting #4 (Integration Results & 2 Yr Plan)	MSV, A Johnson, L Hansen, C Robbins, M Parvinen, P Archer, B Morman, A Spector, M Hardesty, J Abrahamson	6/14/2012	6/14/2012		TAG
510	IRP Team Meeting	MSV, A Johnson, L Hansen, C Robbins, M Parvinen, P Archer, B Morman, A Spector, M Hardesty, J Abrahamson, J Silveira	6/20/2012	6/20/2012		TEAM
520	Integration of Supply and Conservation Resources: June through July 2012	MSV, C Robbins, L Hansen, A Johnson	6/14/2012	7/13/2012		INTEGRATION
530	Confirm decision of optimal portfolio	MSV, L Hansen, B Morman	6/14/2012	7/13/2012		INTEGRATION
540	Gather documentation of all resources	MSV, A Johnson, L Hansen		6/8/2012		IRP DOCUMENT
550	Internal review of draft plan	MSV, A Johnson, L Hansen, C Robbins, M Parvinen, P Archer, B Morman, A Spector, M Hardesty, J Abrahamson, J Silveira	6/14/2012	7/13/2012		IRP DOCUMENT
560	Adjustments to draft plan	MSV, A Johnson, L Hansen, C Robbins, M Parvinen, P Archer, B Morman, A Spector, M Hardesty, J Abrahamson	7/13/2012	7/23/2012		IRP DOCUMENT
570	IRP Team Meeting	MSV, A Johnson, L Hansen, C Robbins, M Parvinen, P Archer, B Morman, A Spector, M Hardesty, J Abrahamson, J Silveira	7/25/2012	7/25/2012		TEAM
580	Assmembly of draft plan materials	MSV, A Johnson, P Archer	7/23/2012	7/27/2012		IRP DOCUMENT
590	Distribute draft plan	A Johnson	7/31/2012	7/31/2012		IRP DOCUMENT
600	Receive general responses to draft plan	MSV	7/31/2012	8/15/2012		IRP DOCUMENT
610	Determine if TAG meeting needed initial draft	MSV, B Morman, M Parvinen	8/20/2012	8/20/2012		TAG
620	IRP Team Meeting	MSV, A Johnson, L Hansen, C Robbins, M Parvinen, P Archer, B Morman, A Spector, M Hardesty, J Abrahamson, J Silveira	8/22/2012	8/22/2012		TEAM
630	TAG 5 (if needed)	MSV, A Johnson, L Hansen, C Robbins, M Parvinen, P Archer, B Morman, A Spector, M Hardesty, J Abrahamson	9/6/2012	9/6/2012		TAG
640	IRP Team Meeting	MSV, A Johnson, L Hansen, C Robbins, M Parvinen, P Archer, B Morman, A Spector, M Hardesty, J Abrahamson, J Silveira	9/12/2012	9/12/2012		TEAM

ORDER	TASK	PRINCIPLE PARTICIPANTS	START	END	COMPLETED	CATEGORY
650	Receive final responses to draft plan	MSV	10/15/2012	10/15/2012		IRP DOCUMENT
660	IRP Team Meeting	MSV, A Johnson, L Hansen, C Robbins, M Parvinen, P Archer, B Morman, A Spector, M Hardesty, J Abrahamson, J Silveira	10/18/2012	10/18/2012		TEAM
670	Internal review of final plan	MSV, A Johnson, L Hansen, C Robbins, M Parvinen, P Archer, B Morman, A Spector, M Hardesty, J Abrahamson, J Silveira	10/15/2012	11/29/2012		IRP DOCUMENT
680	IRP Team Meeting	MSV, A Johnson, L Hansen, C Robbins, M Parvinen, P Archer, B Morman, A Spector, M Hardesty, J Abrahamson, J Silveira	11/29/2012	11/29/2012		TEAM
690	Assmembly of final plan materials	MSV, A Johnson, P Archer	12/3/2012	12/5/2012		IRP DOCUMENT
700	Have copies made of Final IRP	A Johnson	12/6/2012	12/7/2012		IRP DOCUMENT
710	Prepare CD and mailing for Final IRP	A Johnson	12/7/2012	12/7/2012		IRP DOCUMENT
720	Electronically File Final IRP	MSV	12/14/2012	12/14/2012		IRP DOCUMENT
730	Fed Express IRP copies to WUTC	A Johnson	12/14/2012	12/14/2012		IRP DOCUMENT
740	IRP Team Meeting	MSV, A Johnson, L Hansen, C Robbins, M Parvinen, P Archer, B Morman, A Spector, M Hardesty, J Abrahamson, J Silveira	12/19/2012	12/19/2012		TEAM

2012 IRP (WA) Sections	Principle Parties
I. Executive Summary	Mark Sellers-Vaughn, Bob Morman, Mike Parvinen
II. Introduction & Planning Overview	Mark Sellers-Vaughn, Pam Archer
III. Demand Forecast	Mark Sellers-Vaughn, Andrea Johnson, Chris Robbins, Luke Hansen, Pam Archer, Joe Silveira
IV. Distribution System Enhancements	Kevin Raschkow, Mike Hardesty
V. Demand Side Resources	Allison Spector, Jim Abrahamson
VI. Supply Side Resources	Mark Sellers-Vaughn, Chris Robbins, Luke Hansen
VII. Resource Integration	Mark Sellers-Vaughn, Andrea Johnson, Luke Hansen
VIII. Two-Year Action Plan	All
IX. Appendices	
A. IRP Processes (work plan, TAG minutes, etc)	Mark Sellers-Vaughn, Andrea Johnson
B. Demand Forecast Model Escalation Rates (economic indicators, demand charts & tables)	Mark Sellers-Vaughn, Andrea Johnson
C. Distribution System Planning (Reinforcement Projects charts)	Kevin Raschkow, Mike Hardesty
D.1 and2 Oregon Conservation Measures	Allison Spector, Jim Abrahamson
D.3 and 4 WA Conservation Measures	Allison Spector, Jim Abrahamson
D.5 ETO 2008 Stallar Study Update	Allison Spector, Jim Abrahamson
E. Supply Resource Alternatives (resource input tables, 20 yr price forecast)	Mark Sellers-Vaughn, Andrea Johnson, Luke Hansen
F. Capacity Requirement and Peak Day Planning (summaries, zonal charts, etc)	Mark Sellers-Vaughn, Chris Robbins, Luke Hansen
G1. Weather Uncertainty Analysis & Impact on Annual Loads (Monte Carlo Simulations)	Mark Sellers-Vaughn, Andrea Johnson, Luke Hansen
G2. Price Uncertainty Analysis (Nymex detail annual ranges, Monte Carlo simulations)	Mark Sellers-Vaughn, Andrea Johnson, Luke Hansen
H. Avoided Costs Calculations 45yr resource cost effectiveness)	Mark Sellers-Vaughn, Allison Spector, Jim Abrahamson
I. Action Plan Progress Report	All

LAST NAME	FIRST NAME	TITLE	COMPANY	ORIGINAL HIRE DATE	ROLE ON 2012 IRP	IRP WORKED ON 2010 IRP
Abrahamson	Jim	Sr. Conservation Analyst I	Cascade	1/20/2009	DSM and Conservation Measures analysis, Avoided Costs Calculations 45yr resource cost effectiveness)	Yes
Archer	Pam	Supervisor, Regulatory Analysis	Cascade	9/3/2010	Introduction & Planning Overview; demand forecast	No
Benson	Marty	Gas Supply Analyst II	Intermountain	3/1/2000	Observation; Support market intelligence, Price forecast	No
Hansen	Luke	Gas Supply Analyst	Cascade	8/16/2010	Gas supply, transportation and storage analyis (SENDOUT utilization), Demand Forecast, Supply Resource Alternatives (resource input tables, 20 yr price forecast), Capacity Requirement and Peak Day Planning (summaries, zonal charts, etc)	No
Hardesty	Mike	Engineer III	Cascade	8/22/2007	Distribution System Enhancements, Distribution System Planning (Reinforcement Projects charts)	Yes
Johnson	Andrea	Regulatory Analyst	Cascade	8/29/2011	Forecast analysis (SENDOUT utilization); resource integration, Demand Forecast Model Escalation Rates (economic indicators, demand charts & tables)	No
Morman	Bob	Gas Supply Manager	MDU		Responsible senior manager of IRP process; Executive summary	No
Parvinen	Mike	Manager, Regulatory Affairs	Cascade/Intermountain	9/1/2011	Regulatory, insights, consulting manager of IRP process; Executive summary	No
Rashkow	Kevin	Manager, Engineering Services	Cascade	10/28/2002	Responsible manager for distirbution system engineering	No
Robbins	Chris	Manager, Gas Supply and Controls	Cascade	9/30/1996	Gas supply, transportation, storage and forecast, Capacity Requirement and Peak Day Planning (summaries, zonal charts, etc)	No
Sellers-Vaughn	Mark	Manager, Supply Resource Planning & Systems	Cascade	2/4/1992	Overall management of IRP project (planning, forecast, DSM, resources, integration, Monte Carlo, organization and development)Increasing level of responsibility for Resource, Integration elements and analysis; development of capacity supplies, storage, price forecast associated with IRPs since 2008 plan. I also provide the Company's gas management system activities, which currently takes up less than 20% of my workload.	Yes
Silveira	Joe	Financial Analyst IV	Cascade	7/20/2010	Finance perspective, forecast consultation	No
Spector	Allison	Manager, Conservation Programs	Cascade	6/23/2008	Responsible manager for DSM, Conservation Measures, Avoided Costs Calculations 45yr resource cost effectiveness)	Yes
Swenson	Dave	Regulatory Analyst III	Intermountain	6/1/1984	Observation; Sharing of Intermountain IRP insights	No

2012 CNGC IRP PARTICIPANTS

LAST NAME	FIRST NAME	COMPANY
Abrahamson	Jim	Cascade
Applegate	Rick	WUTC
Archer	Pam	Cascade
Benson	Marty	Intermountain
Cooley	John	Cascade
Dammen	Sarah	Northwest Natural Gas
Finklea	Ed	NW Industrial Gas Users
Gross	Jennifer	Northwest Natural Gas
Hansen	Luke	Cascade
Hardesty	Mike	Cascade
Hemson	Ben	NW Gas Association
Irvine	Kelly	Avista Corp
Johnson	Andrea	Cascade
Johnson	Steve	WUTC
Kirshner	Dan	NW Gas Association
Klingele	John	Customer
Morman	Bob	MDU
Novak	Vanda	WUTC
Osborne	Elizabeth	WUTC
Parvinen	Mike	Cascade/Intermountain
Popoff	Phillip	Puget Sound Energy
Pyron	Paula	NW Industrial Gas Users
Rashkow	Kevin	Cascade
Reynolds	Deborah	WUTC
Robbins	Chris	Cascade
Saldivar	Marty	Northwest Pipeline
Sargent	Amanda	Cascade
Sellers-Vaughn	Mark	Cascade
Silveira	Joe	Cascade
Spector	Allison	Cascade
Swenson	Dave	Intermountain

2012 Integrated Resource Plan

Technical Advisory Group Meeting

March 9, 2012

Agenda

- Introductions
- Overview of Cascade
- 2012 IRP Process
- 2012 IRP Workplan
- Key Assumptions
  - Quick Look at other LDC forecast methodologies
  - General Discussion on Load Forecast
  - Economic Indicators
  - Price Forecast

A Quick History Lesson

- Beginning in 1953, Cascade Natural Gas Corporation began acquiring small local gas distribution companies
- The interstate pipeline began in New Mexico and moved northwesterly into Pacific Northwest
- Usually, an industrial operation located in the area made it economically feasible for Cascade to construct its initial distribution system to serve the industrial customer and then branch out from there
- In 2007, Cascade became a subsidiary of MDU Resources, a Fortune 500 company headquartered in Bismarck, North Dakota

Today

- Cascade serves more than 260,000 customers in 96 communities
- Cascade's service areas are concentrated in western and south central Washington and south central and eastern Oregon.
- Cascade serves a diverse territory covering more than 32,000 square miles and 700 highway miles from one end of the system to the other.
- Multiple interstate pipelines transport Cascade's natural gas from production areas in the Rocky Mountains and western Canada.


Bellingham
Mt. Vernon
Washington
Bremerton
Seattle
Aberdeen
Wenatchee
Moses Lake
Yakima
Longview
Sunnyside
Kennewick
Walla Walla
Hermiston
Pendleton
Oregon
Baker City
Bend
Ontario
Legend
Service Area
District Offices
Headquarters

IRP Purpose, Process and Plan (IRPPPP)

- The primary purpose of Cascade's long-term resource planning process has been, and continues to be, to inform and guide the Company's resource acquisition processes, consistent with the rule (WAC 480-90-238).

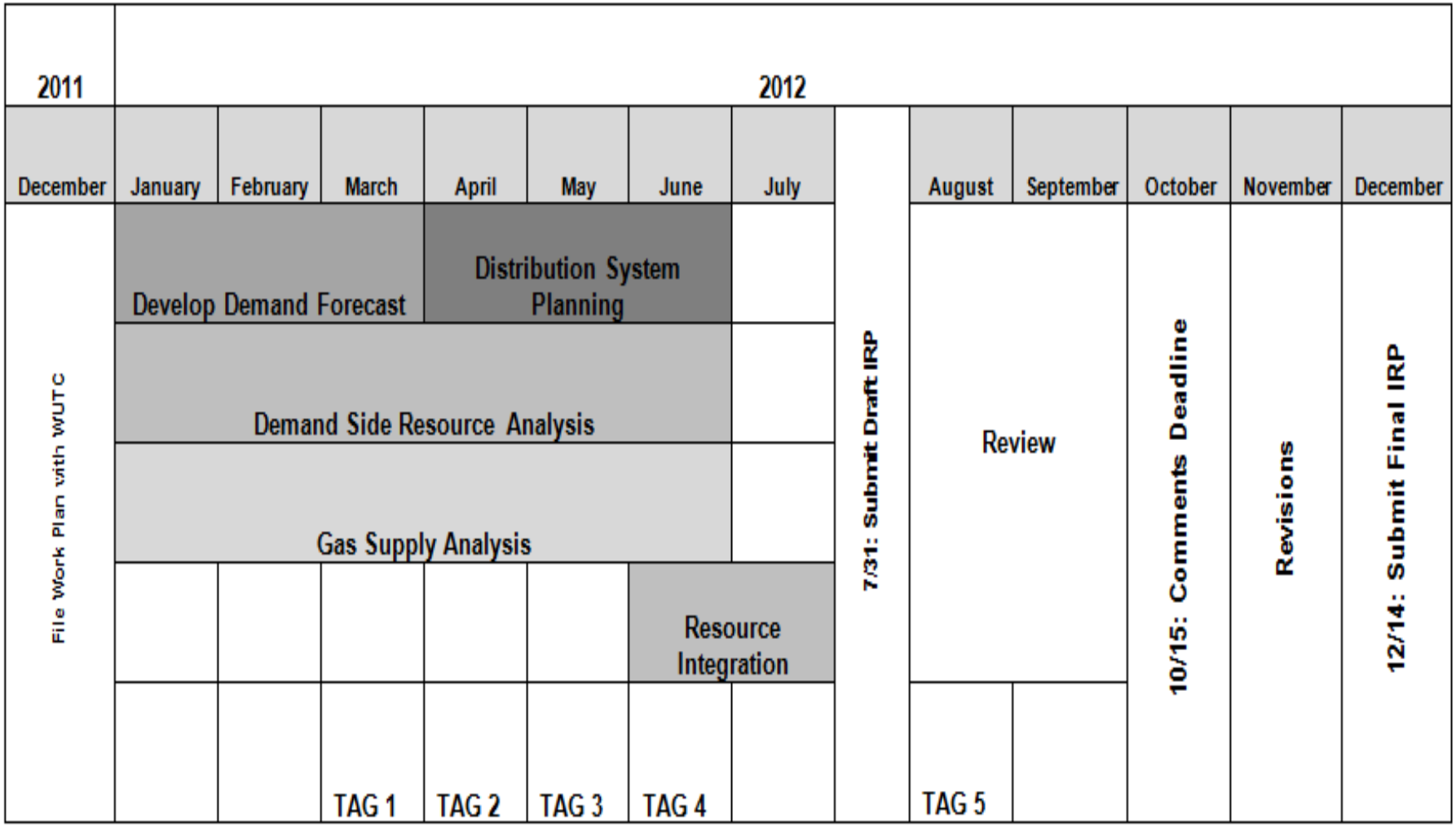
- Input and feedback from the Company's Technical Advisory Group (TAG) is an important resource to help ensure Cascade's IRP is developed from a broader perspective than Cascade could have on its own.

- Analytical methods will be similar to those used to develop the Company's most recent IRPs, and will include the use of a linear programming optimization model (SENDOUT) to solve natural gas supply and transportation optimization questions, along with the use of Monte-Carlo simulations to estimate the impact of various uncertainty factors.

Resource Decision Making Process Overview

- Construct a range of possible demand forecasts for the core market.
- Calculate avoidable distribution system enhancement costs.
- Provide the optimization model the existing supply side and demand side resource options to meet demand.
- Run the optimization model to identify resource needs including the types of resources and their timing requirements. The existing portfolio is modeled under a range of demand forecast conditions.
- Identify incremental supply and demand side resources to satisfy a range of incremental growth scenarios.
- Run the optimization and Monte-Carlo simulation models to identify the best fit portfolio given an expected range of forecasted core loads and operating conditions.

Cascade Natural Gas Corporation
2012 IRP Timeline



Outline of IRP Content

- Executive Summary
- Introduction & Planning Overview
- Demand Forecast
- Distribution System Enhancements
- Demand Side Resources
- Supply Side Resources
- Resource Integration
- Two-Year Action Plan
- Appendices

2012 IRP TAG Schedule

Meeting	Topic	Tentative Date	Tentative Location
TAG 1	Key Assumptions (Price Forecast & Economic Indicators)	Friday, March 9, 2012	WUTC Offices in Olympia
TAG 2	Demand Forecast Results & Resource Alternatives Part I (Supply/Demand Resources)	Wednesday, April 11, 2012	SEATAC Airport
TAG 3	Distribution System Planning, Resource Alternatives Part II, Preliminary Modeling for Conservation Supply Curves	Wednesday, May 16, 2012	SEATAC Airport
TAG 4	Integration/ 2 year Action Plan	Tuesday, June 19, 2012	CNGC Kennewick
TAG 5	Draft IRP Discussion	Wednesday, August 22, 2012	WUTC Offices in Olympia

Thoughts? Concerns? Advice?

- Does the schedule require revisions?
  - Enough meetings?
  - New subjects?
  - Location issues?
- Do we want to add (or delete) sections of the IRP?
  - Anyone have a wish list?

There is a useful, broad classification of scenario exercises: whether they are a *forecast* or a b*ackcast*. While both procedures have a similar end product - a future state and a path to reach it - the process for generating the product is very different.

- A **forecast** starts with the current situation and possible future paths, then deduces an end-state.
- A **backcast** starts with the current situation and an end-state and then deduces possible future paths.
- In a backcast, there is usually some judgement about the desirability of the future state. Because of this, backcasts are sometimes called *normative* scenarios, while forecasts are sometimes called *descriptive* or *exploratory* scenarios.

Demand Forecast Methodology Comparison

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Analysis Conducted

- Observed methods utilized by Cascade Natural Gas, Avista Utilities, Northwest Natural, and Puget Sound Energy to develop demand forecasts

- A summary of the step-by-step approach strives to provide a general insight into the similarities and differences in the analysis performed by each company

- Question we are asking ourselves and seek your input: is our method best method to meet Cascade's unique distribution system needs?

- Avista utilizes both an annual and a peak day demand forecast
  - Annual: prepare revenue budgets, develop gas procurement plans, PGA filings
  - Peak Day: primarily for resource planning

- Forecast customer count and use per customer
  - Used to develop both base demand and weather sensitive demand coefficients
    - "Super-peak" demand coefficients reflect the flattening of the demand curve at extremely cold temperatures

- A backcast is used to verify the reliability of the forecasts

- After developing the base case, less likely demand scenarios are considered:
  - High Growth/Low Price: high customer growth with low natural gas prices
  - Low Growth/High Price: low customer growth with high natural gas prices
  - Green Future: higher CO_2 costs and drilling restrictions
  - Alternate Weather Standard: change in weather planning standard to coldest day in 20 years for each service territory (as opposed to coldest day on record)
  - Supply Constraints: low economic growth

- Economic and pricing conditions are considered to be the primary indicators of potential demand

Northwest Natural

- NW Natural starts by projecting customer growth by region and category

- Recent usage data is collected and analyzed for customer base use and heat use behavior in response to historic weather and gas rates
  - Used to fit coefficients for a statistical load model for each category and region

- Price forecast and a forward weather pattern is used in combination with the load model and customer forecast to project demand over the 20-year planning horizon
  - This constitutes the base case demand forecast
  - Additional demand scenarios are developed for planning purposes
  - Load forecast accuracy is checked against recent, actual customer usage under a variety of conditions

- The base case and less likely demand scenarios reflect the following conditions:
  - Low Growth Case: due to "economic malaise"
  - High Growth Case: sharper than expected economic rebound
  - Low Growth II: significantly low customer growth attributed to "electric utility breakthrough" (inexpensive and clean electric power decreasing use of natural gas)

- A backcast is used to test the accuracy of the forecast

Puget Sound Energy

- Puget Sound Energy develops "ranges of forecasts, estimates and assumptions"
  - Demand, gas prices, and CO_2 costs are considered to be key areas driving demand

- Forecasts are combined to create several scenarios beyond the base case

- The base case is modified in order to examine additional scenarios reflecting integrated assumptions that could occur together:
  - Low Growth: caused by weak long-term economic growth
  - High Growth: robust long-term economic growth
  - Very Low Gas Prices: models impact of very weak long-term gas prices
  - Very High Gas Prices: models impact of extremely high gas prices
  - Base + CO_2: moderate CO_2 costs
  - Green World: high CO_2 costs

- A 20-year demand forecast is intended to be an estimate of energy sales, customer counts, and peak demand
  - Outcomes are broken down by region and customer class, then used in long-term resource and delivery system planning

Cascade Natural Gas

- Cascade develops a 20-year forecast of customers, therm sales, and peak requirements
  - Utilized in annual budgeting as well as long-term planning

- Customer counts are built from the district level up and take into account both demographic trends and economic conditions

- Usage forecast utilizes median household income, weather, and natural gas prices to determine therms per customer

- A review of low and high growth scenarios examine load growth under poor and greater than expected improvements in economic conditions
  - Forecasts by Woods & Poole are altered to examine the strongest and weakest performing decades over thirty years

- Peak day forecast is implemented in conjunction with a base load forecast, which attempts to ensure demand is met on the coldest days of the year
  - A 60-year weather history is obtained and peak day is based on the coldest day in the past 30 years , currently identified as 61 HDD
  - Therm usage is adjusted upward based on coldest day in *recent* history to 61 HDD to show what usage would have been at 61 HDD
  - Usage is applied to each district at the forecasted therm usage annual growth rate

- Various scenarios are developed and used as inputs in SENDOUT to assist in the determination of supply and DSM resources

Primary similarities between demand forecasts amongst the four observed utilities

- Each Utility uses a combination of economic inputs to forecast their customer base
- Weather and natural gas prices are used as primary inputs for forecasting therms
- Weather data is typically sourced through NOAA
- Price forecasts are sourced from Wood Mackenzie with internal adjustments applied
  - NW Natural has developed an internal forecast
- All utilities use peak day and variations of high/low scenarios to project load growth
- Each Company has a 20-year projection timeline
- Demand forecasts are ultimately implemented into a long-term planning model using SENDOUT

Significant differences in model development observed across the utility companies:

- Economic indicators used to develop customer counts are inconsistent
- Therm usage inputs are inconsistent, though weather and natural gas prices are recognized as primary drivers of consumption
- Each utility obtains economic data from a different source
- There is inconsistency when it comes to the breakdown of data into location and customer class
- There is no standard for determining peak day
- Scenarios range from simply a high/low view of growth to assessing impact of additional outside forces

Conclusions

- The goals are the same across companies, with variations in not just method, but in what factors are considered to be primary components driving demand

- Economic indicators vary across each Company, though differences in the location of service territories may warrant the consideration of different sub-sets of data for different geographical regions

- Each utility has developed its own strategy when it comes to forecasting demand

In the Community to Serve®

2012 Demand Forecast Assumptions

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- Cascade recently filed a 2011 IRP with the OPUC to meet a December 29, 2011 deadline.
- The forecast developed in the 2011 IRP was finalized in Fall 2011; economic factors have not materially changed since the filing of the 2011 IRP
- Load growth continues to be modest, at best

	Residential	Commercial	Industrial	System
2011 – 2016	1.71%	1.68%	-3.22%	1.48%
2016 – 2021	1.78%	1.81%	-1.85%	1.66%
2021 – 2026	1.74%	1.83%	-1.06%	1.68%
2026 – 2031	1.50%	1.59%	-1.24%	1.46%
2011 – 2031	1.68%	1.73%	-1.84%	1.57%

- The 2010 data which was used as part of the 2011 plan had approximate growth average of 1.1% over 2012-2040.
- The 2011 data Woods & Poole data which we just received a few weeks ago shows average growth of 1.5% over 2012-2040.
- We are not sure there is any advantage in tweaking the growth numbers when it is so close and other elements such as the new price forecast will ultimately change the results of the Monte Carlo simulations.
- We have concluded that using the 2011 load forecast is a sound base case without redoing the full comparison and analysis of the recent Woods & Poole

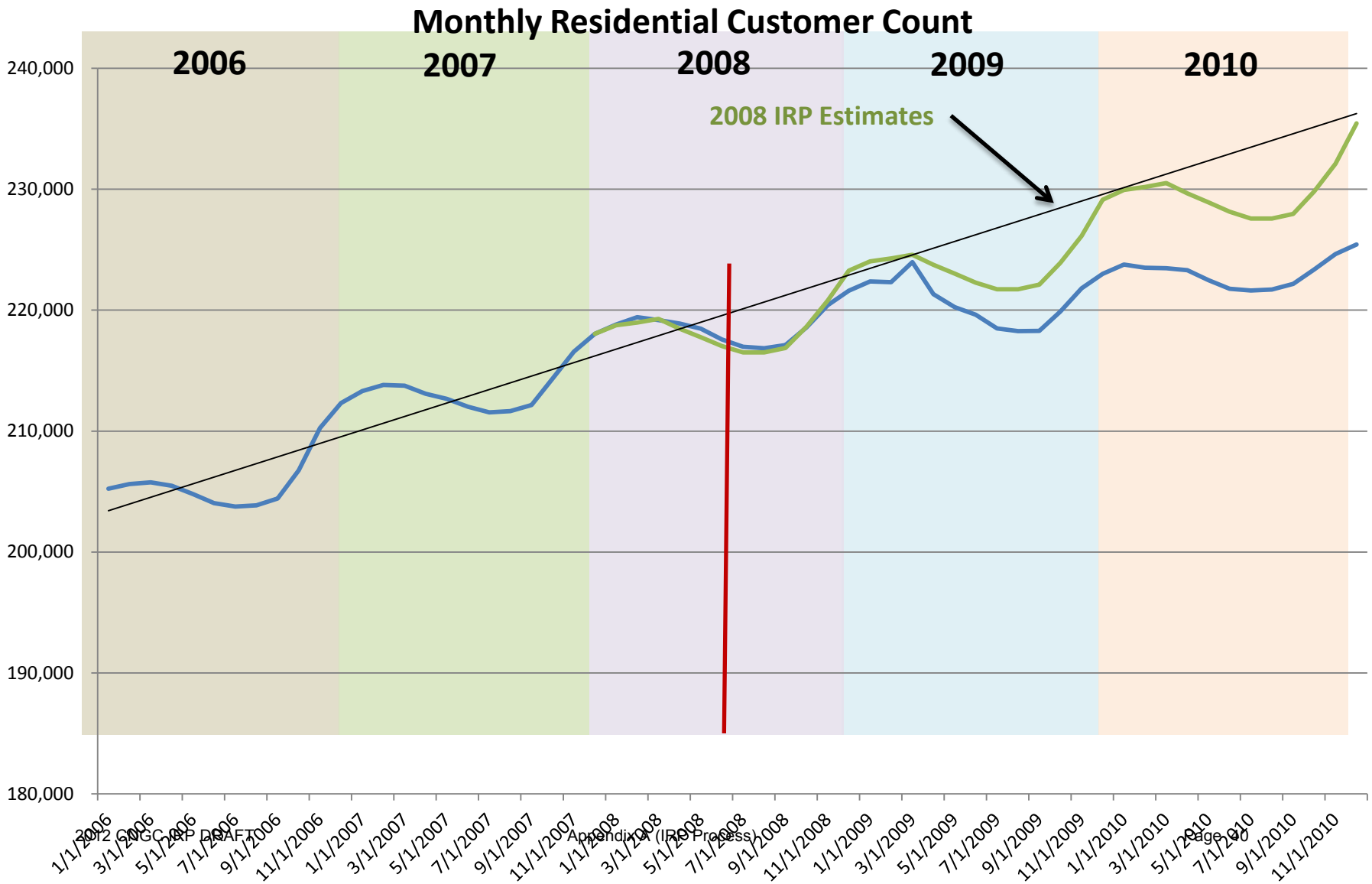
Recommendation

- Cascade recommends that we utilize the load forecast that was developed in 2011 for the purposes of the 2012 IRP.
- 2012 IRP will contain comparisons to the 2010 IRP that was filed with the WUTC in 2010. We will derive 2032 data from using the 2011 data.
- The 2012 IRP will differ from the 2011 IRP in that several resources (upstream transport, capacity) have been obtained since the filing of both of the last two IRPs.
- The 2012 IRP will also differ from 2011 IRP as it will be developed using a new, updated price forecast, reflecting the most recent market intelligence.

Thoughts? Concerns? Advice?

Current Events

Current Events



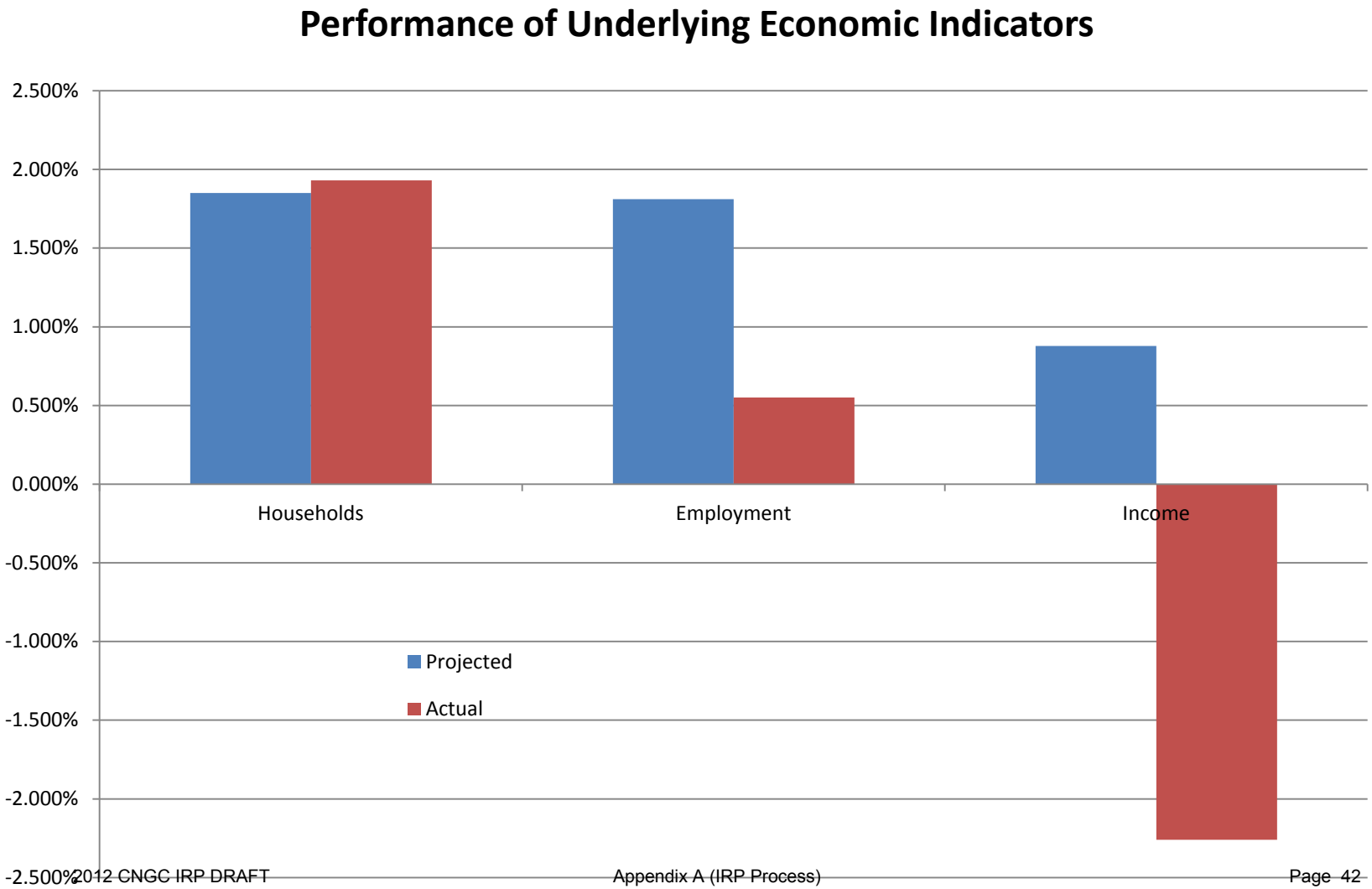
2008 IRP Revisited

Growth has been far lower than expectations:

	Forecasted	Actual
2008	2.68%	1.64%
2009	2.62%	0.62%
2010	2.85%	1.09%

2008 IRP Revisited

Customer counts have been low, partially due to the economy:



2008 IRP Revisited

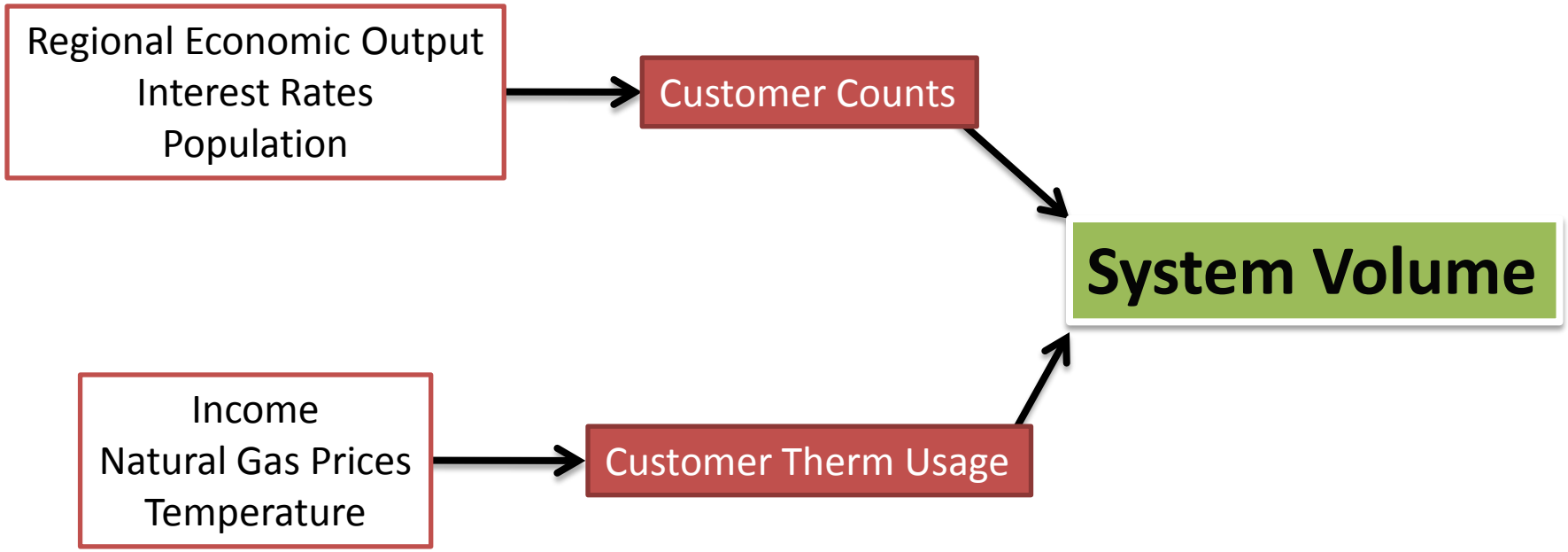
2008 IRP Customer Count Overestimation
(Discrepancy as a % of Estimate)

2008 IRP Revisited

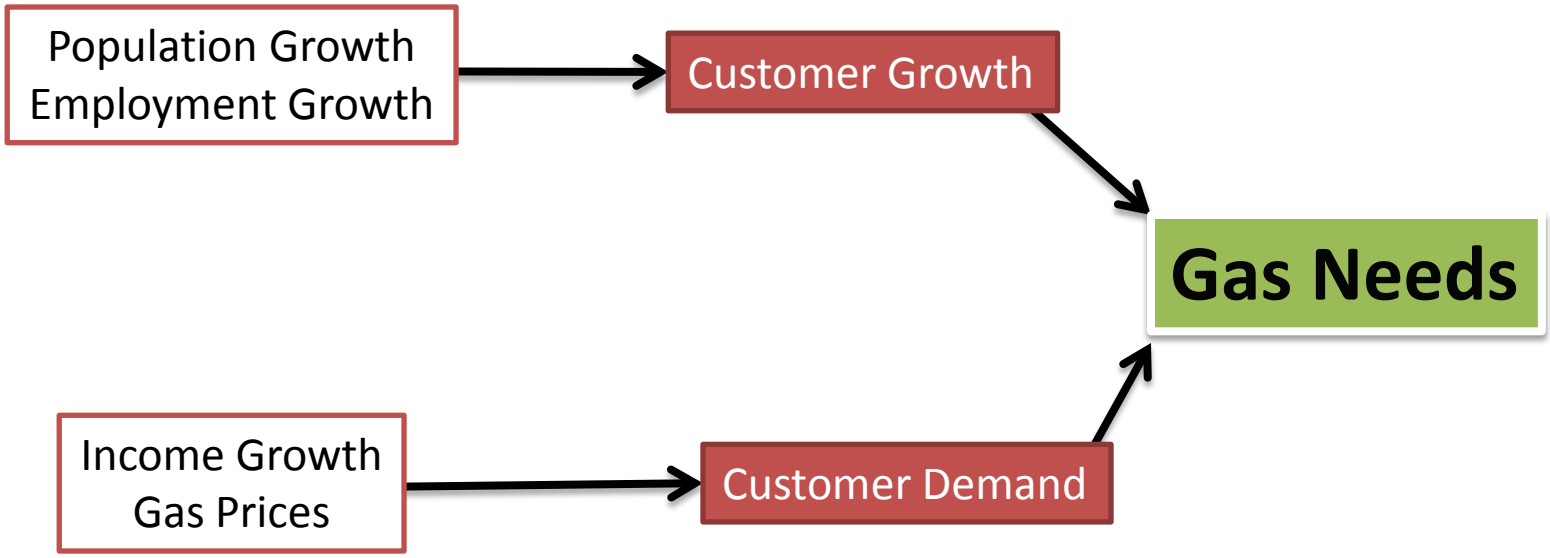
Bend:

	Forecast	Actual	Difference
2008	38,362	37,079	-1,283
2009	40,470	37,318	-3,152
2010	42,616	37,366	-5,250

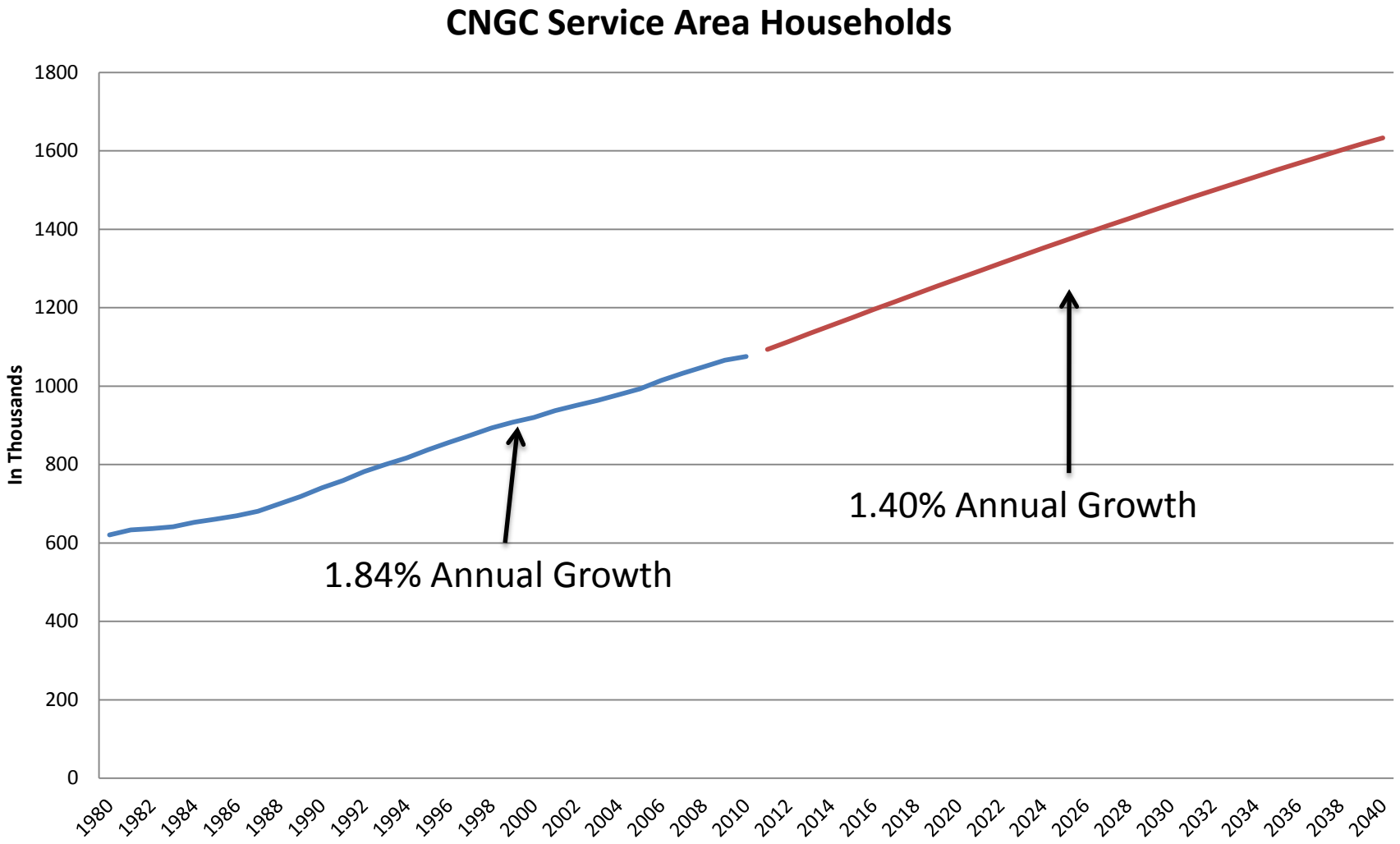
Forecasting Process



Forecasting Process

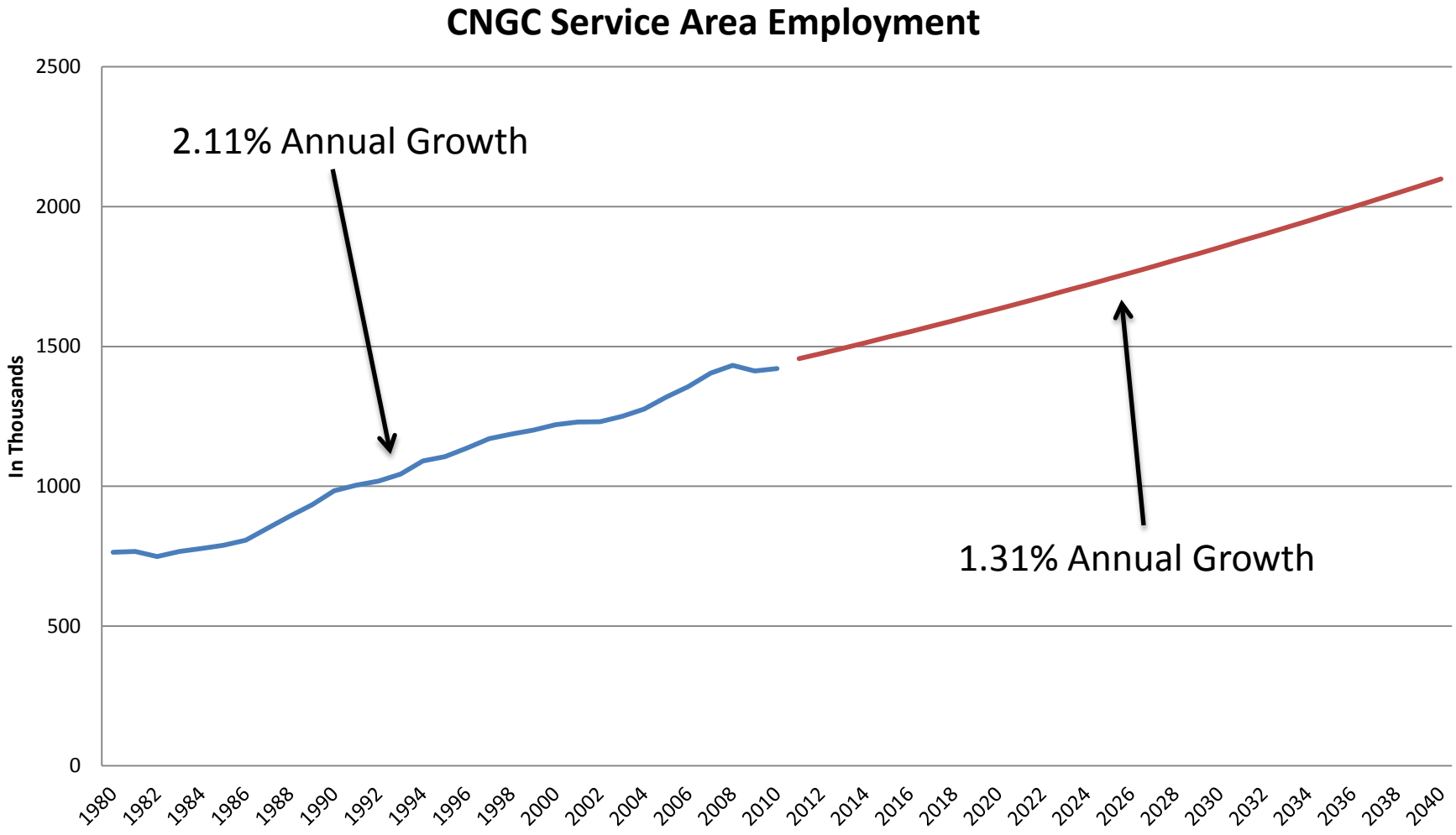


Key Assumptions



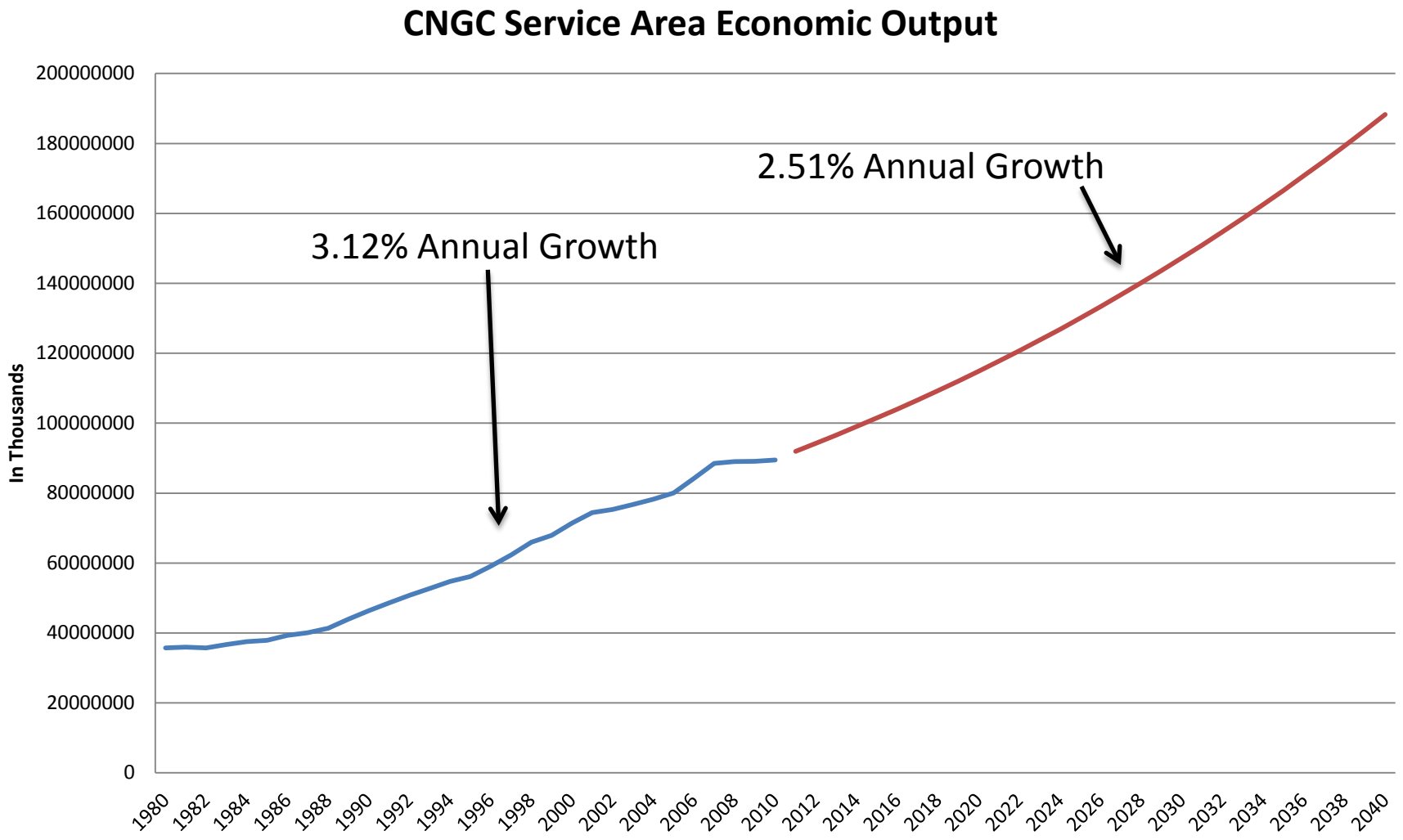
Population → Employment → Income → Interest Rates → Gas Prices → Sensitivity Analysis

Key Assumptions



Population | Employment | Income | Interest Rates | Gas Prices | Sensitivity Analysis

Key Assumptions



Population → Employment → Income → Interest Rates → Gas Prices → Sensitivity Analysis

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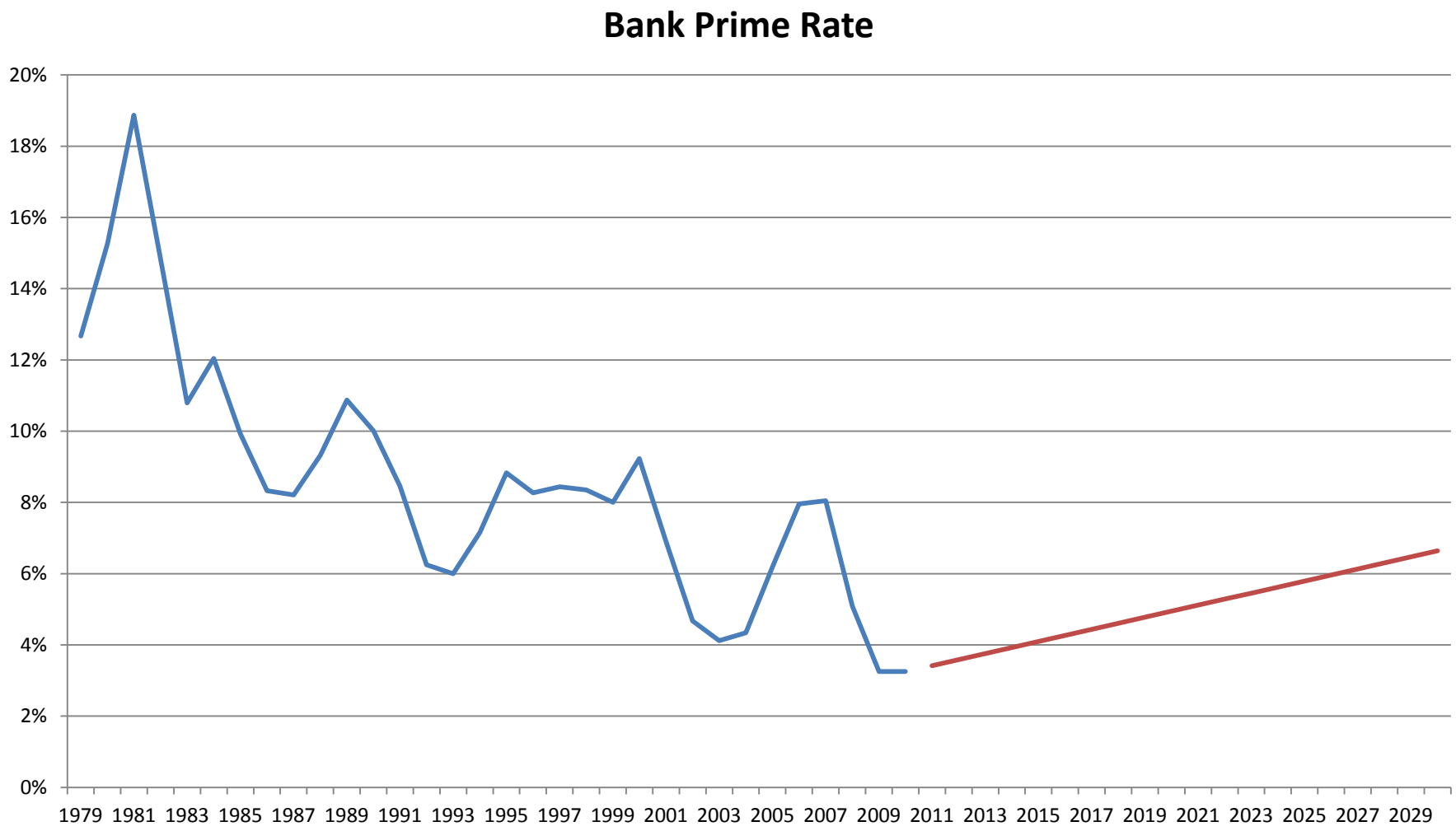

Population → Employment → Income → Interest Rates → Gas Prices → Sensitivity Analysis

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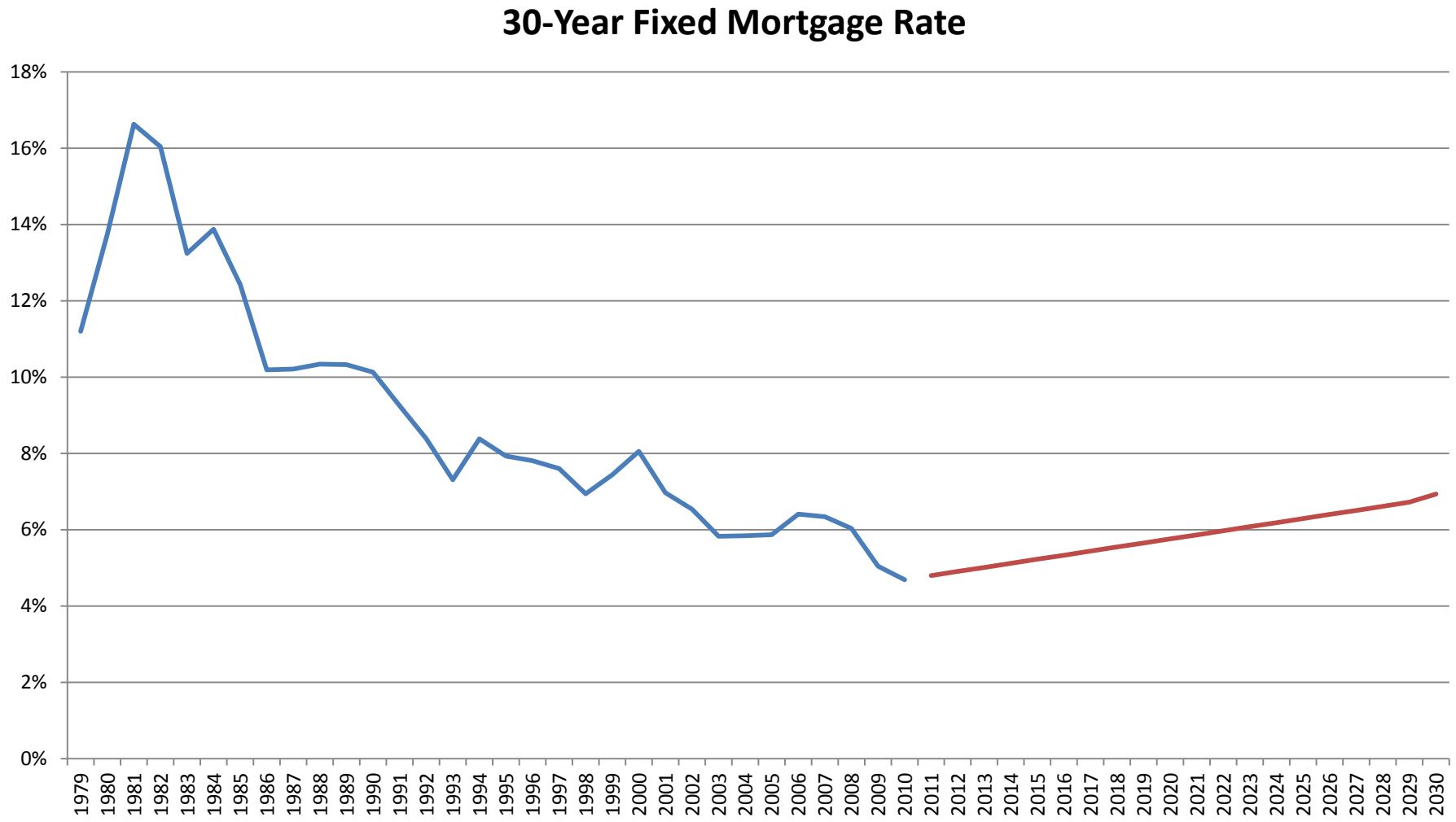

Population | Employment | Income | Interest Rates | Gas Prices | Sensitivity Analysis

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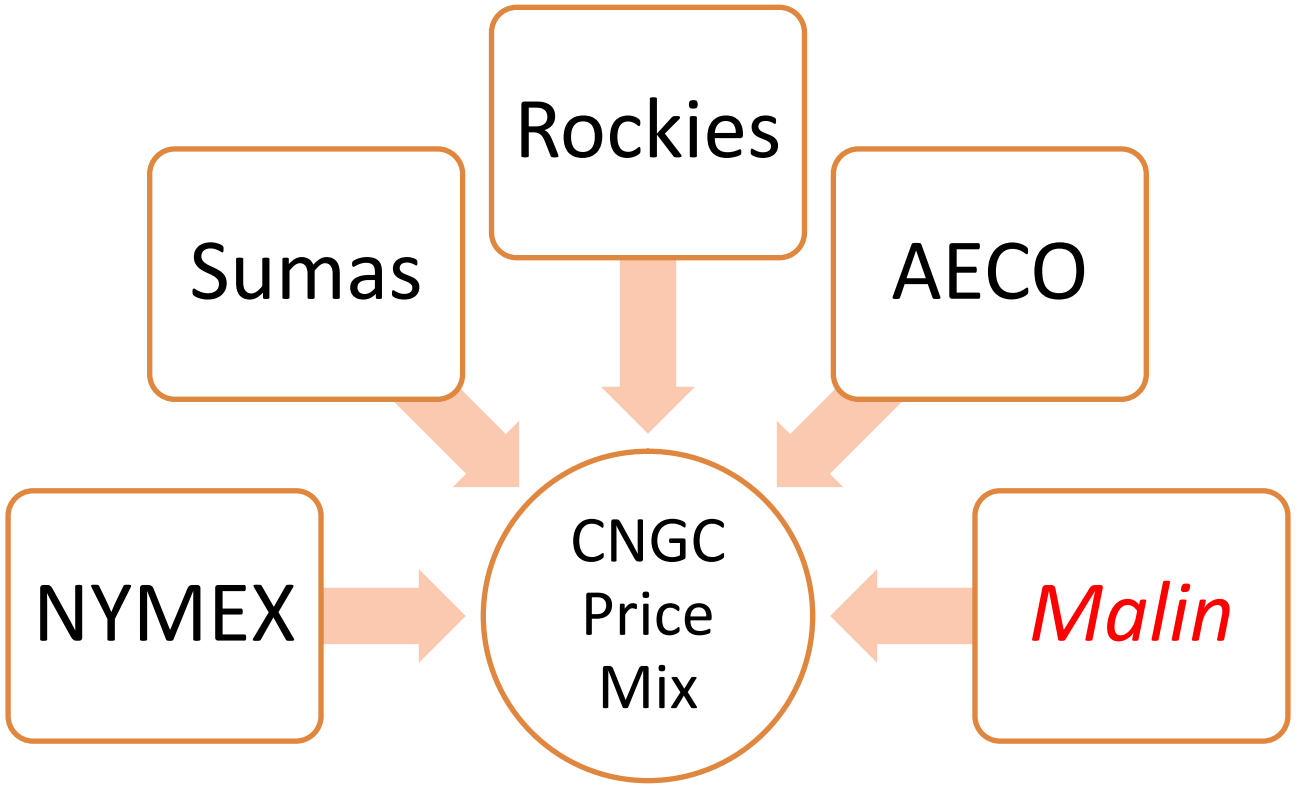
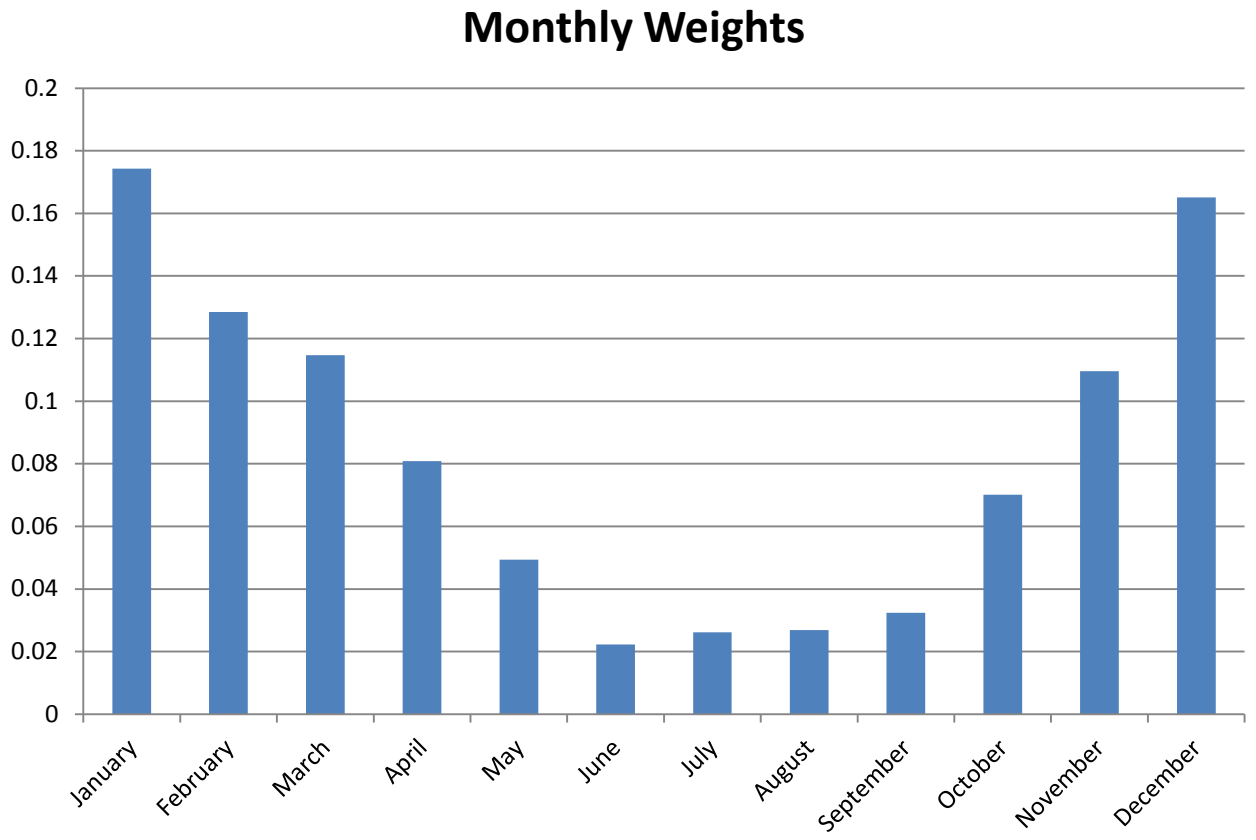


Key Assumptions



Population → Employment → Income → Interest Rates → Gas Prices → Sensitivity Analysis

High & Low Scenarios

Calculation of High and Low Scenarios

	Employment	Growth	Ratio	Households	Growth	Ratio	CNGC MHI	Growth	Ratio
1980	763.494			620.777			$57,577.56		
1981	766.32	0.37%	18%	633.085	1.98%	107%	$56,812.30	-1.33%	-107%
1982	748.74	-2.29%	-109%	636.603	0.56%	30%	$56,076.17	-1.30%	-104%
1983	766.806	2.41%	115%	641.215	0.72%	39%	$57,200.87	2.01%	161%
1984	777.186	1.35%	64%	652.585	1.77%	96%	$57,531.66	0.58%	46%
1985				660.843	1.27%	68%	$57,346.87	-0.32%	-26%
1986				669.767	1.35%	73%	$58,739.48	2.43%	195%
1987	849.854	5.31%	252%	681.077	1.69%	91%	$58,838.29	0.17%	14%
1988	893.829	5.17%	246%	699.89	2.76%	149%	$59,118.72	0.48%	38%
1989	934.287	4.53%	215%	718.214	2.62%	141%	$61,257.39	3.62%	291%
1990	983.888	5.31%	252%	740.361	3.08%	167%	$62,660.22	2.29%	184%
1991	1003.965	2.04%	97%	759.492	2.58%	140%	$64,025.95	2.18%	175%
1992	1018.779	1.48%	70%	782.415	3.02%	163%	$64,851.94	1.29%	104%
1993	1043.075	2.38%	113%	800.051	2.25%	122%	$65,911.67	1.63%	131%
1994	1090.431	4.54%	216%	816.887	2.10%	114%	$67,031.68	1.70%	137%
1995	1105.847	1.41%	67%						%
1996	1136.601	2.78%	132%						%
1997	1169.881	2.93%	139%	874.421	2.12%	114%	$71,210.06	3.16%	254%
1998	1186.301	1.40%	67%	893.517	2.18%	118%	$73,806.57	3.65%	293%
1999	1201.144	1.25%	59%	908.017	1.62%	88%	$74,810.66	1.36%	109%
2000	1219.753	1.55%	74%	919.997	1.32%	71%	$77,637.13	3.78%	304%
2001	1229.271	0.78%	37%	937.555	1.91%	103%	$79,378.68	2.24%	180%
2002	1230.672	0.11%	5%	951.204	1.46%	79%	$79,180.84	-0.25%	-20%
2003	1249.478	1.53%	73%	963.904	1.34%	72%	$79,644.59	0.59%	47%
2004	1275.832	2.11%	100%	978.565	1.52%	82%	$79,940.44	0.37%	30%
2005			%				$80,5		
2006			%				$83,0		
2007	1404.663	3.54%	168%	1032.397	1.74%	94%	$85,7		
2008	1432.405	1.97%	94%	1049.237	1.63%	88%	$84,879.45	-1.02%	-82%
2009	1412.57	-1.38%	-66%	1066.179	1.61%	87%	$83,579.10	-1.53%	-123%
2010	1420.577	0.57%	27%	1075.801	0.90%	49%	$83,143.24	-0.52%	-42%

Growth rates are 123% of average. Use 123% of W&P as the high for employment.

Growth rates are 118% of average. Use 118% of W&P as the high for households.

Growth rates are 174% of average. Use 174% of W&P as the high for MHI.

Growth rates are 73% of average. Use 73% of W&P as the low for employment.

Growth rates are 85% of average. Use 85% of W&P as the low for households.

Growth rates are 56% of average. Use 56% of W&P as the low for MHI.

Population → Employment → Income → Interest Rates → Gas Prices → Sensitivity Analysis

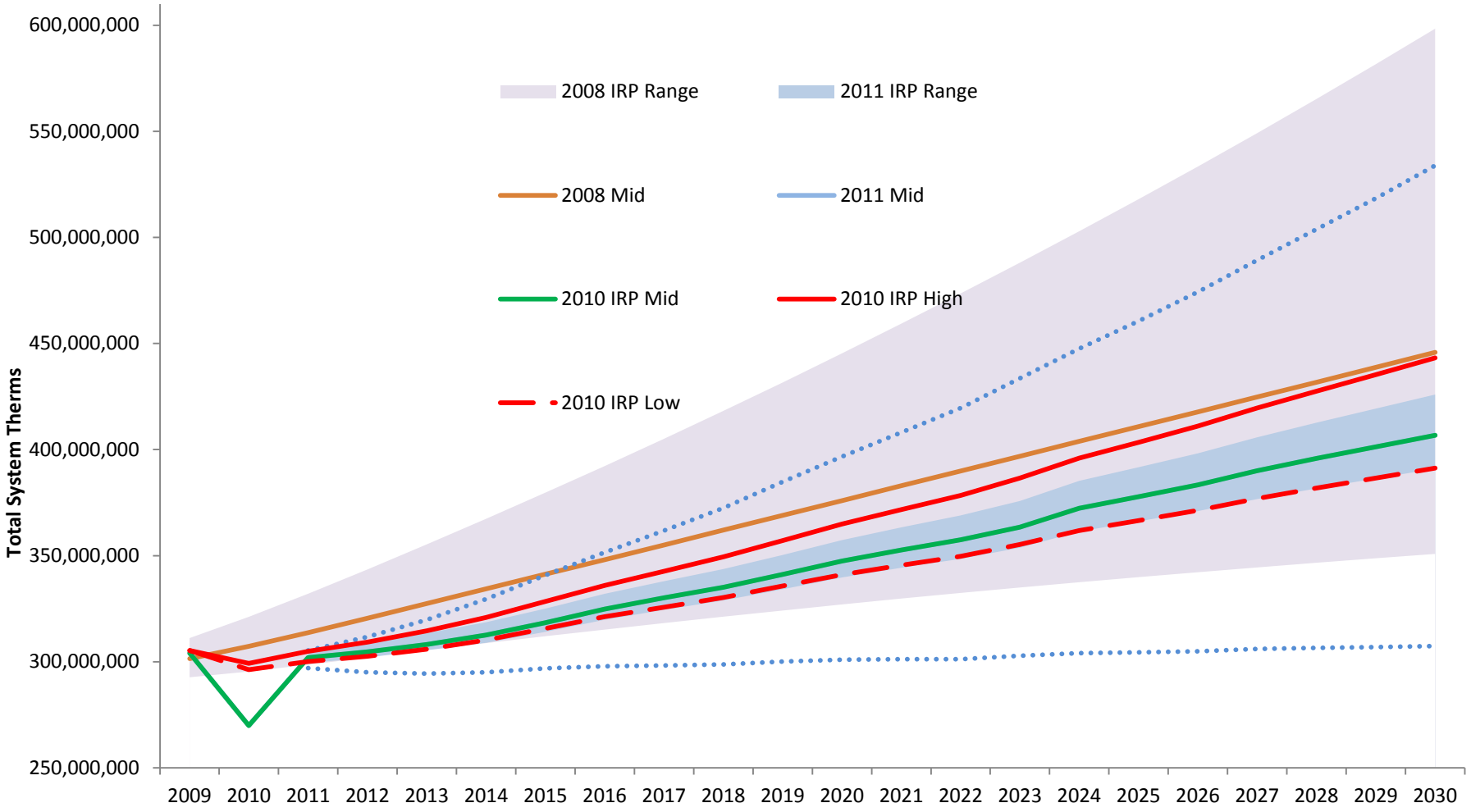
High & Low Scenarios

Scenario	Area	Annual Growth 1998 - 2008
Lowest Growth:	Michigan Public Service Commission	0.284%
Highest Growth:	Utah – Questar Gas	3.02%
Alternate Highest:	Cascade	3.09%

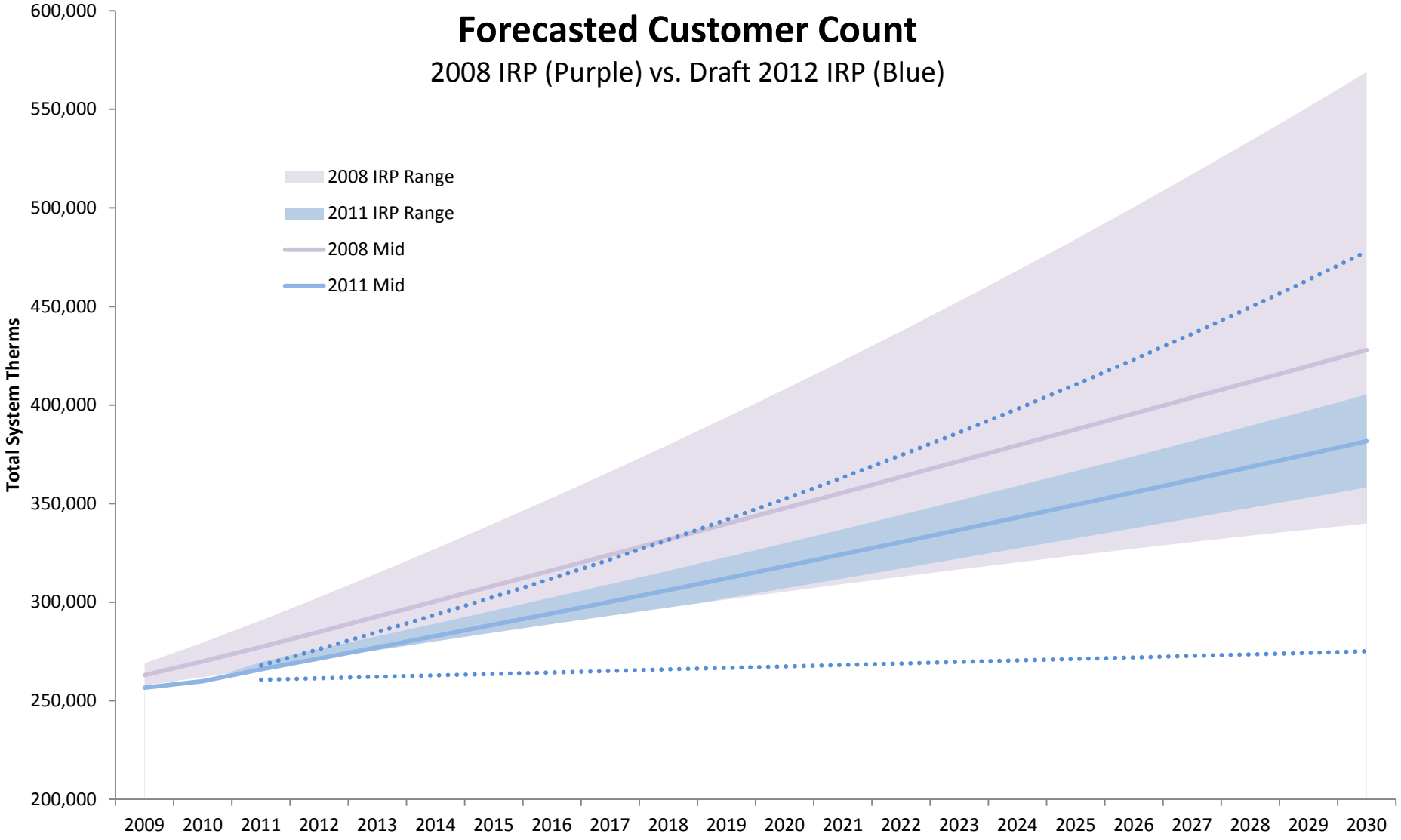
RESULTS

Forecasted Demand

2008 , 2010 and 2011 IRPs



RESULTS


Forecasted Customer Count
2008 IRP (Purple) vs. Draft 2012 IRP (Blue)
2008 IRP Range
2011 IRP Range
2008 Mid
2011 Mid
Total System Therms
600,000
550,000
500,000
450,000
400,000
350,000
300,000
250,000
200,000
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030

RESULTS

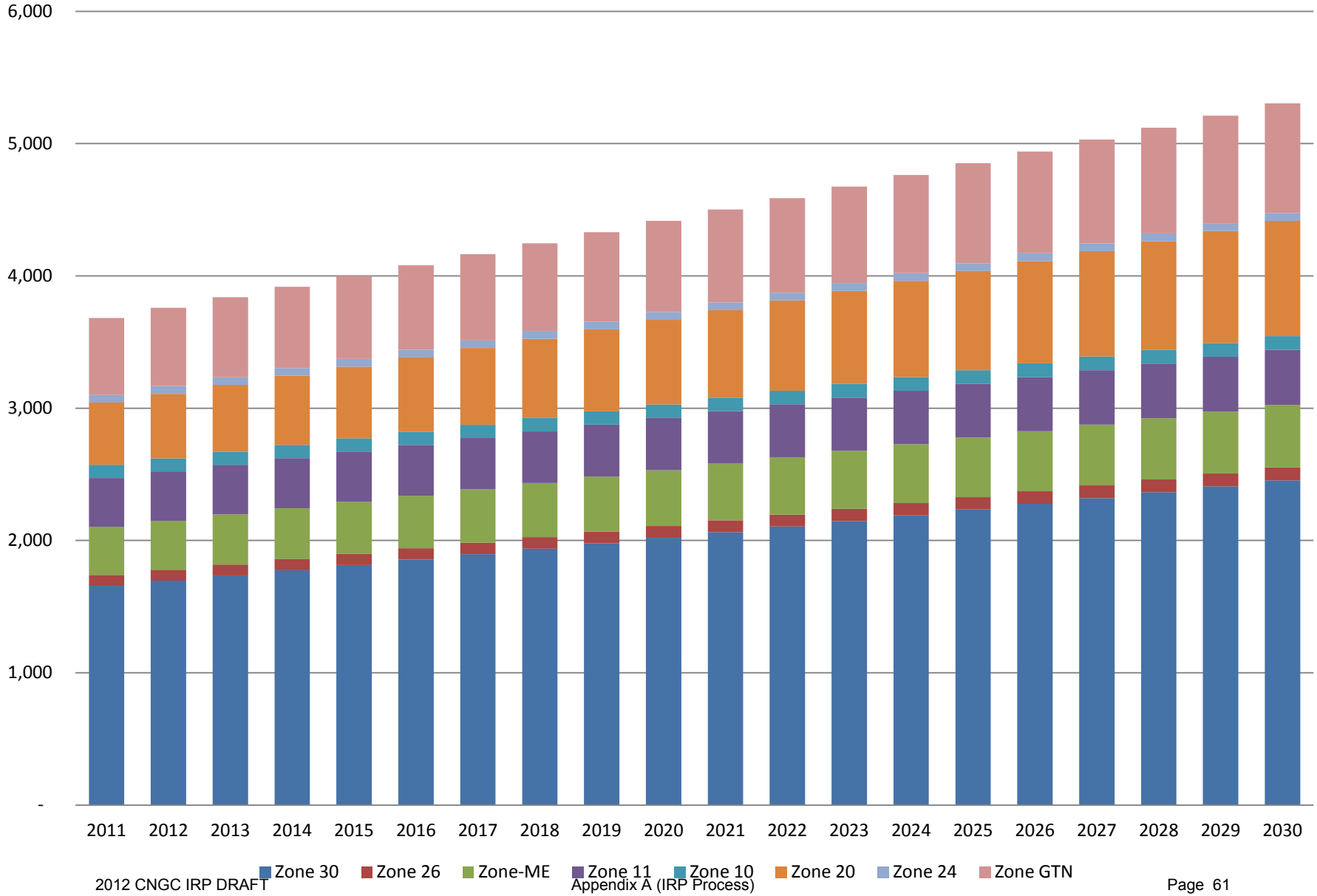
Forecasted Annual Throughput					
		Therms		Growth	
Above/Below System Average		2010	2030	30-Year	Annualized
↓	Aberdeen	9,389,358	10,817,668	15.2%	0.71%
↑	Bellingham	41,198,725	68,514,030	66.3%	2.58%
↑	Bremerton	28,055,900	46,896,186	67.2%	2.60%
↑	Kennewick	24,120,207	46,698,954	93.6%	3.36%
→	Longview	6,572,097	8,415,721	28.1%	1.24%
→	Moses Lake	3,953,220	5,031,219	27.3%	1.21%
↑	Mount Vernon	38,248,971	60,895,203	59.2%	2.35%
↓	Sunnyside	8,740,643	9,073,321	3.8%	0.19%
→	Walla Walla	9,998,512	12,052,935	20.5%	0.94%
↓	Wenatchee	5,620,656	4,666,050	-17.0%	-0.93%
↓	Yakima	26,834,510	31,315,289	16.7%	0.78%
↓	Baker	3,710,991	4,273,384	15.2%	0.71%
↑	Bend	46,653,466	75,924,356	62.7%	2.46%
↓	Ontario	4,536,805	5,243,507	15.6%	0.73%
→	Pendleton	12,225,408	16,923,826	38.4%	1.64%
	Washington	202,732,799	304,679,137	50.3%	2.06%
	Oregon	67,126,670	102,365,074	52.5%	2.13%
	System	269,859,469	407,044,211	50.8%	2.08%

Peak Day Forecast

- Peak day forecast based on a 61 degree day (0 degrees Fahrenheit average temperature) for design weather conditions

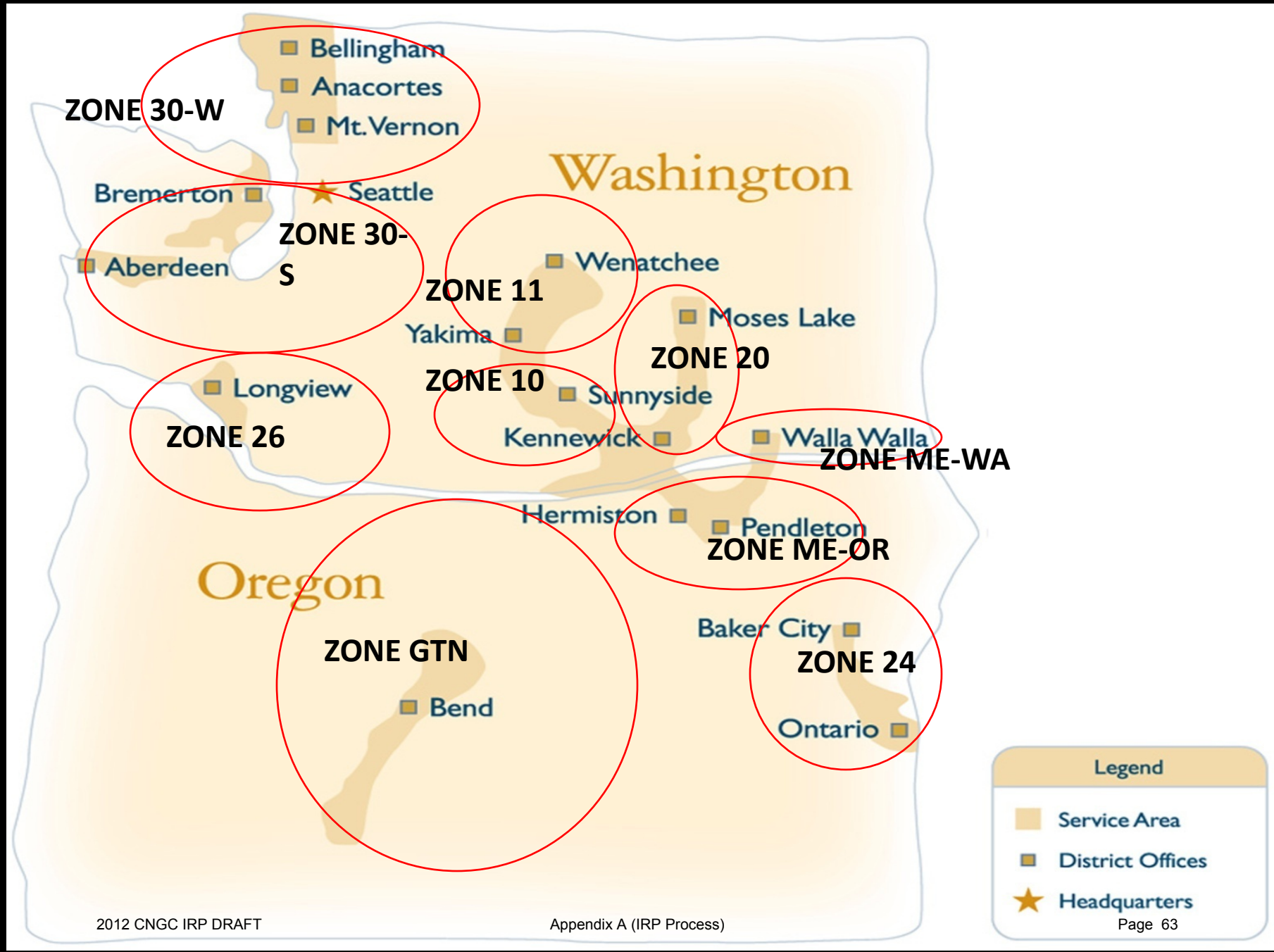
System Average Degree Days	Date / Year
65	1968
63	1950
61	1964, 1957, 1983,**1990**
60	1950, 1957, 1968, 1990
59	1950, 1972, 1979, 1983, 1989, 1990
58	1950, 1979
57	1957,1964, 1972, 1990
56	1963, 1982, 1983, **2004**

Peak Day Forecast

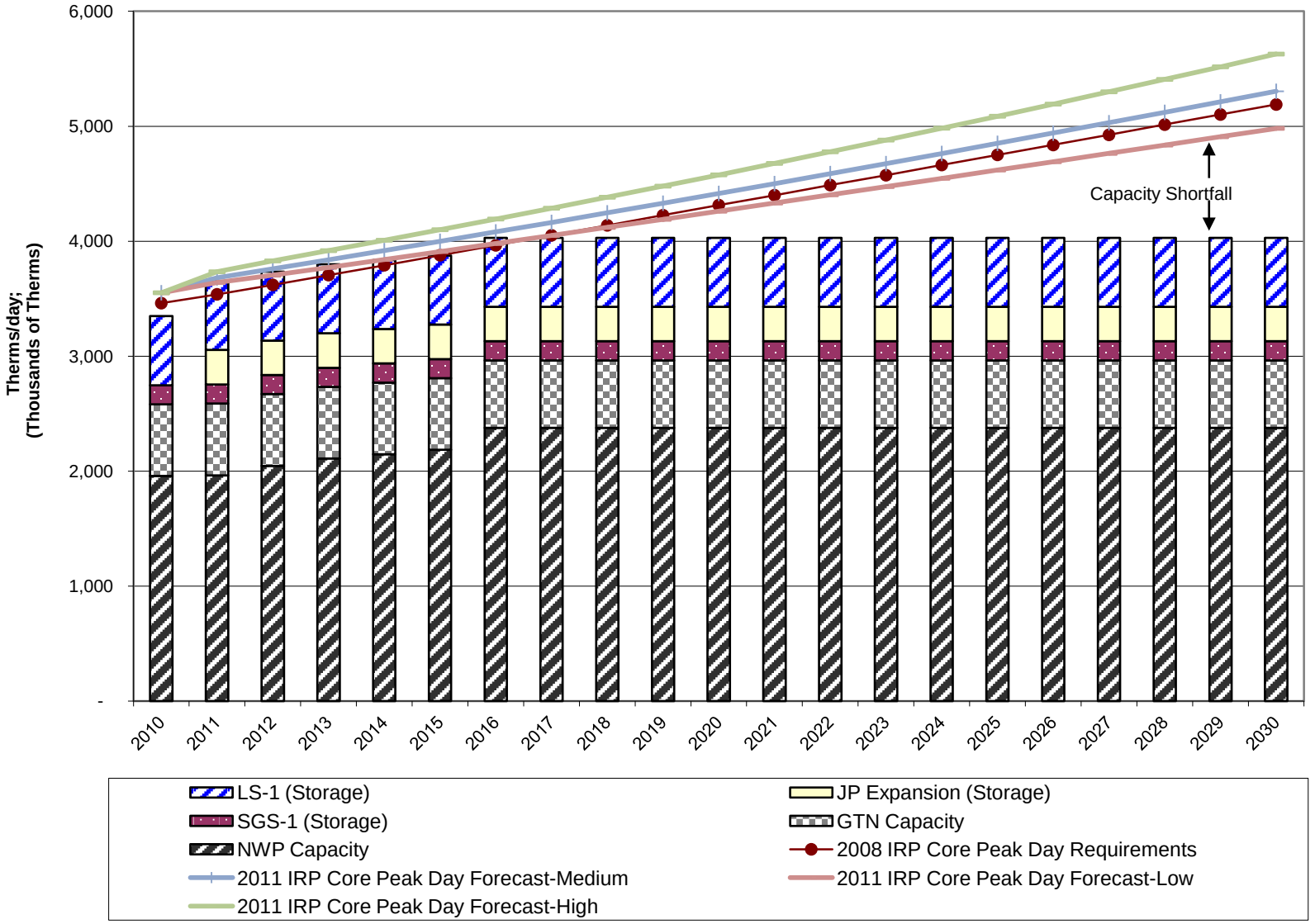


Capacity Analysis

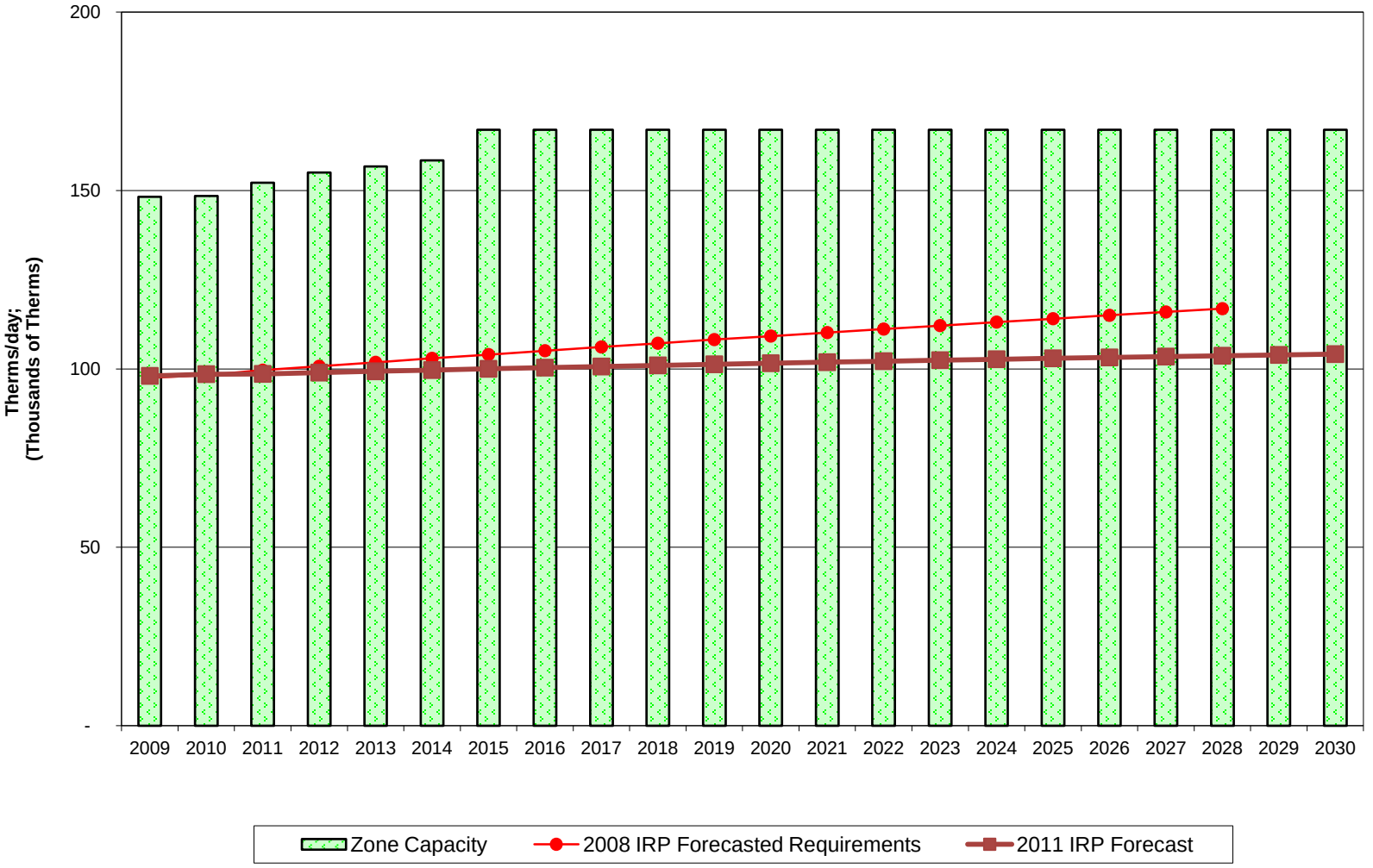
- Overall Pipeline Receipt Capabilities vs Peak Day Demand
- Delivery Capabilities at the Gate (MDDOs)
- Distribution System Needs


ZONE 30-W
Bellingham
Anacortes
Mt. Vernon
Washington
Bremerton
Seattle
ZONE 30-S
Aberdeen
ZONE 11
Wenatchee
Moses Lake
Yakima
ZONE 20
ZONE 10
Longview
Sunnyside
ZONE 26
Kennewick
Walla Walla
ZONE ME-WA
Hermiston
Pendleton
ZONE ME-OR
Oregon
Baker City
ZONE GTN
ZONE 24
Bend
Ontario
Legend
Service Area
District Offices
Headquarters

SYSTEM Peak Day Demand & Existing Capacity Resources

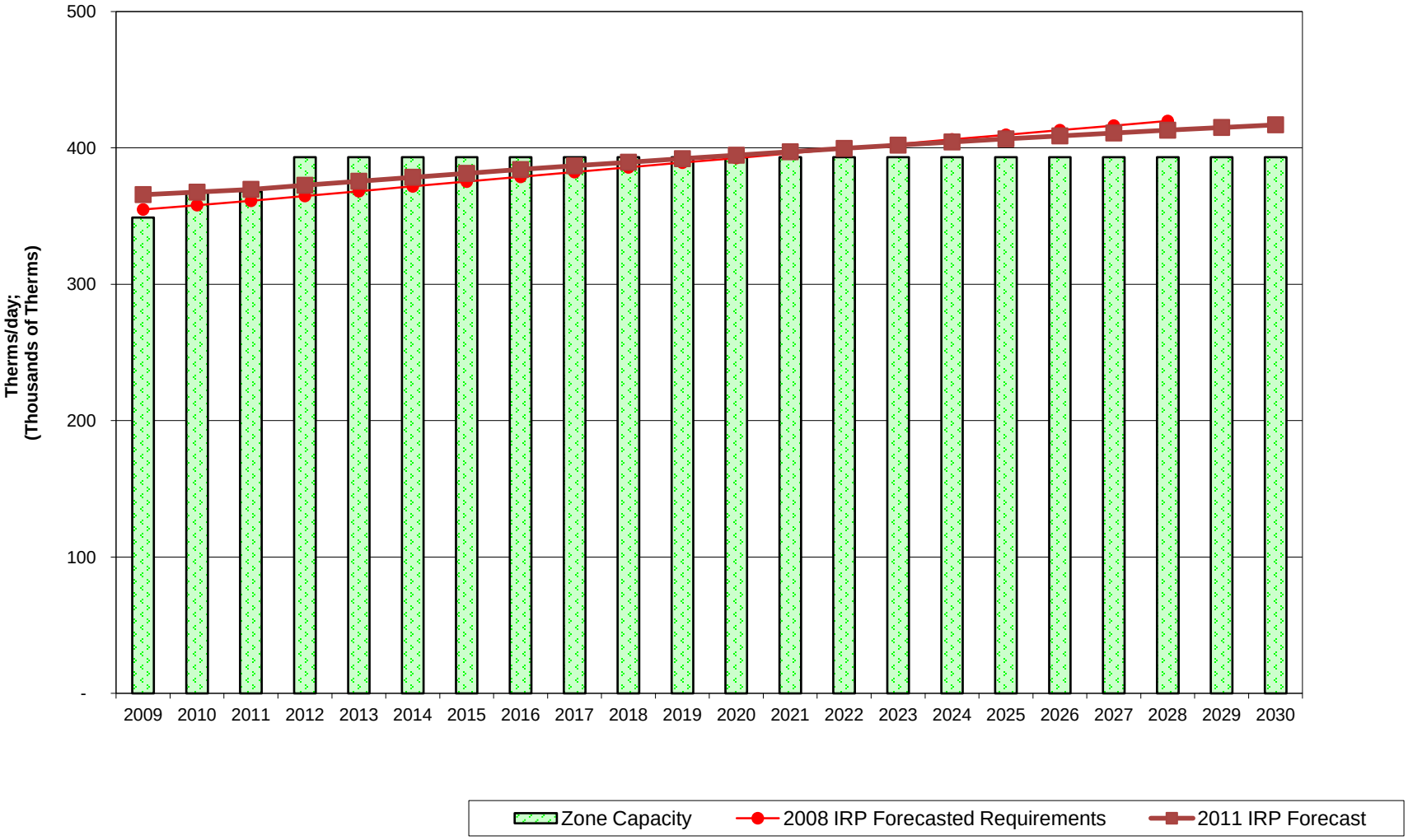


ZONE 10 Peak Day Demand & Existing Capacity Resources
Medium Load Forecast



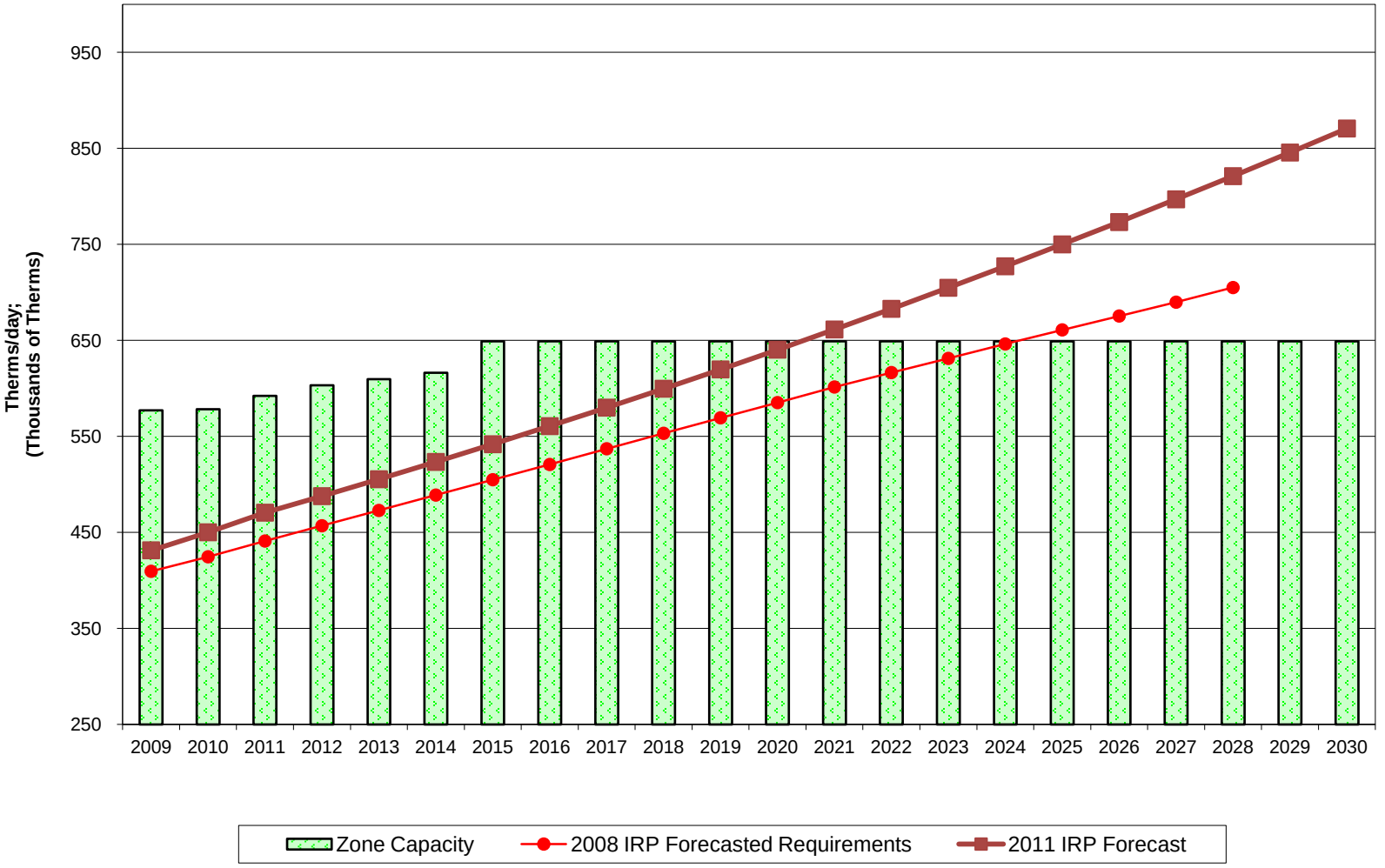
Note: WGPW Capacity is net of Non-Core primary term capacity requirements

ZONE 11 Peak Day Demand & Existing Capacity Resources
Medium Load Forecast



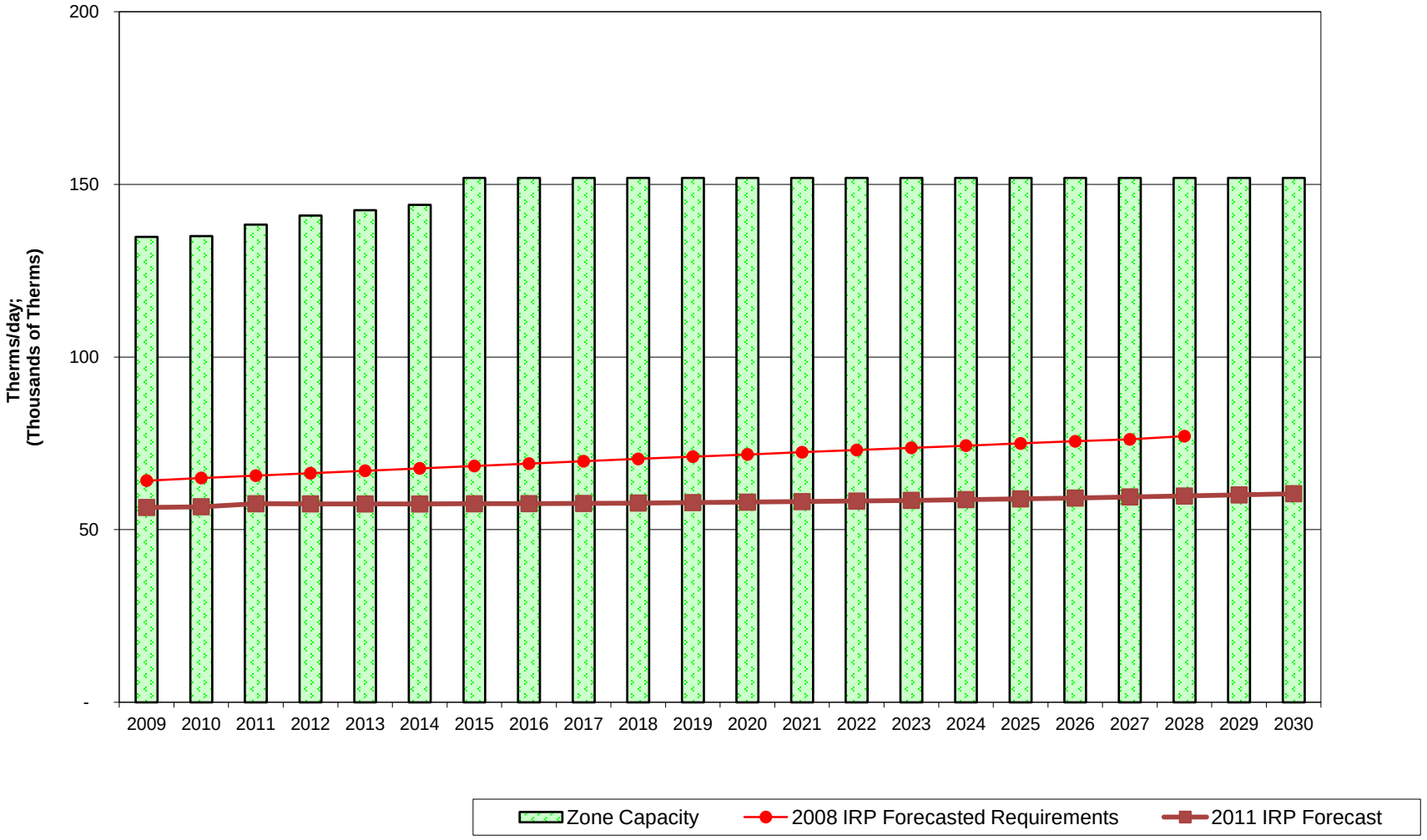
Note: WGPW Capacity is net of Non-Core primary term capacity requirements

ZONE 20 Peak Day Demand & Existing Capacity Resources
Medium Load Forecast



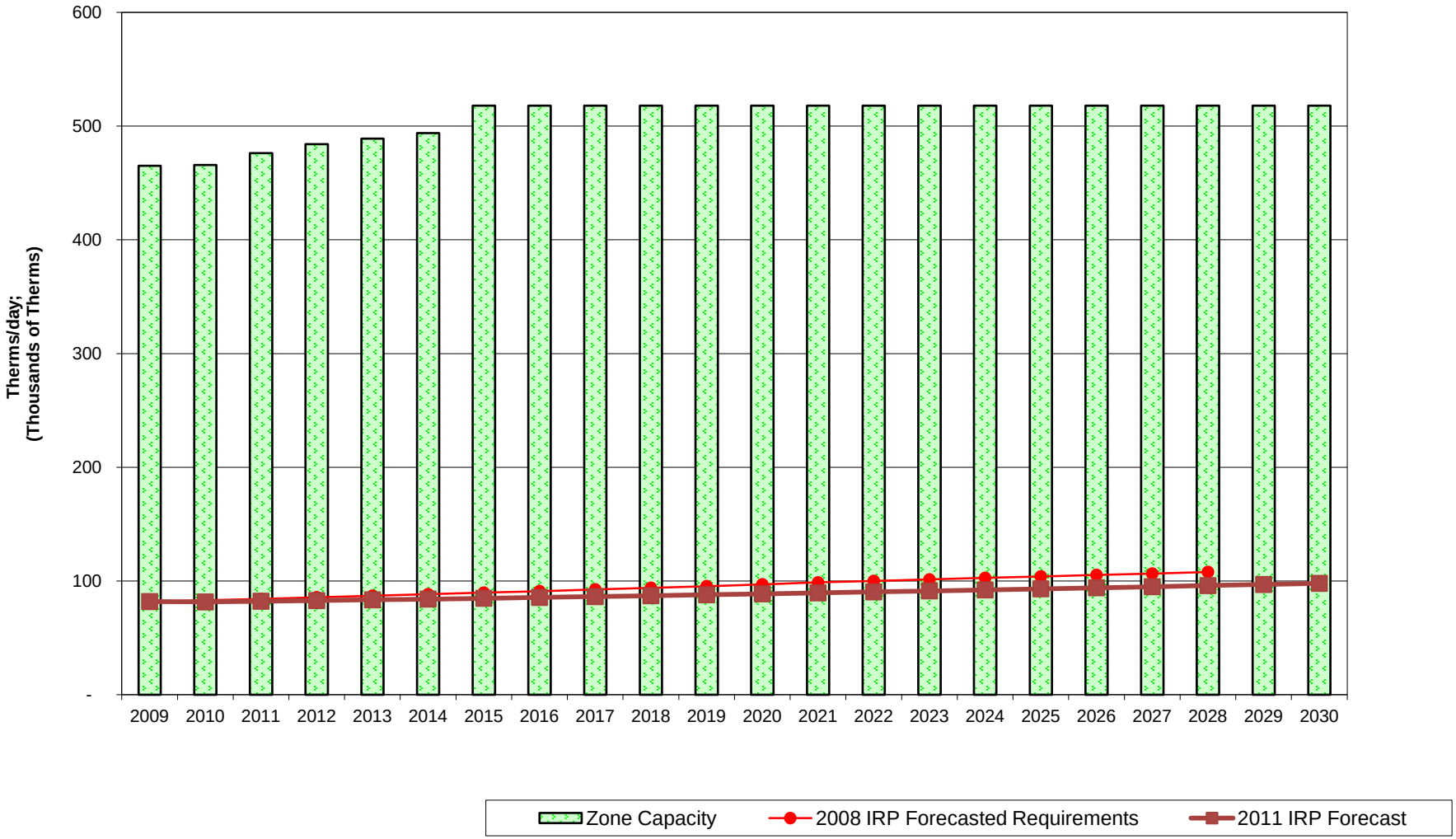
Note: WGPW Capacity is net of Non-Core primary term capacity requirements

ZONE 24 Peak Day Demand & Existing Capacity Resources
Medium Load Forecast



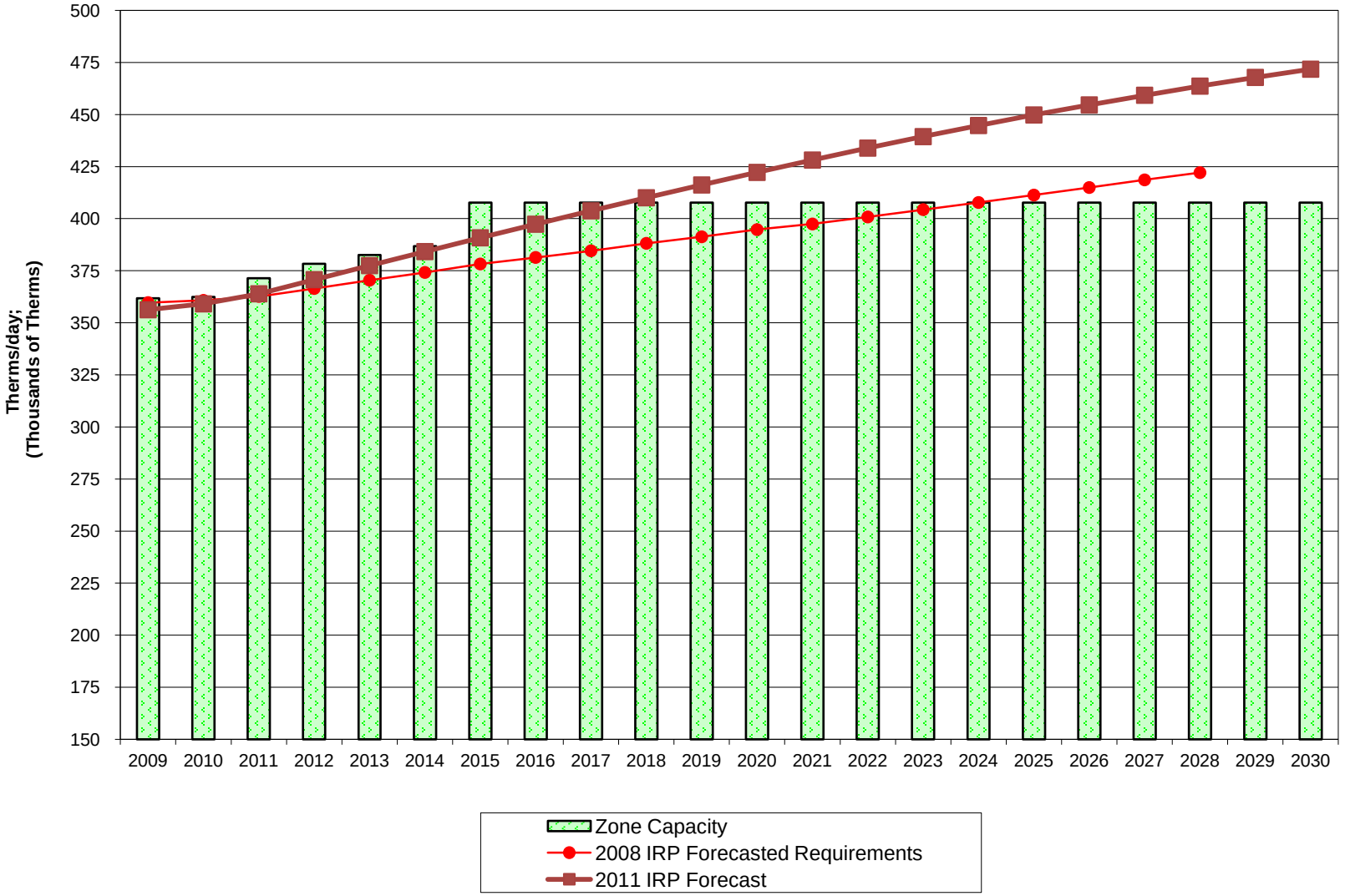
Note: WGPW Capacity is net of Non-Core primary term capacity requirements

ZONE 26 Peak Day Demand & Existing Capacity Resources
Medium Load Forecast



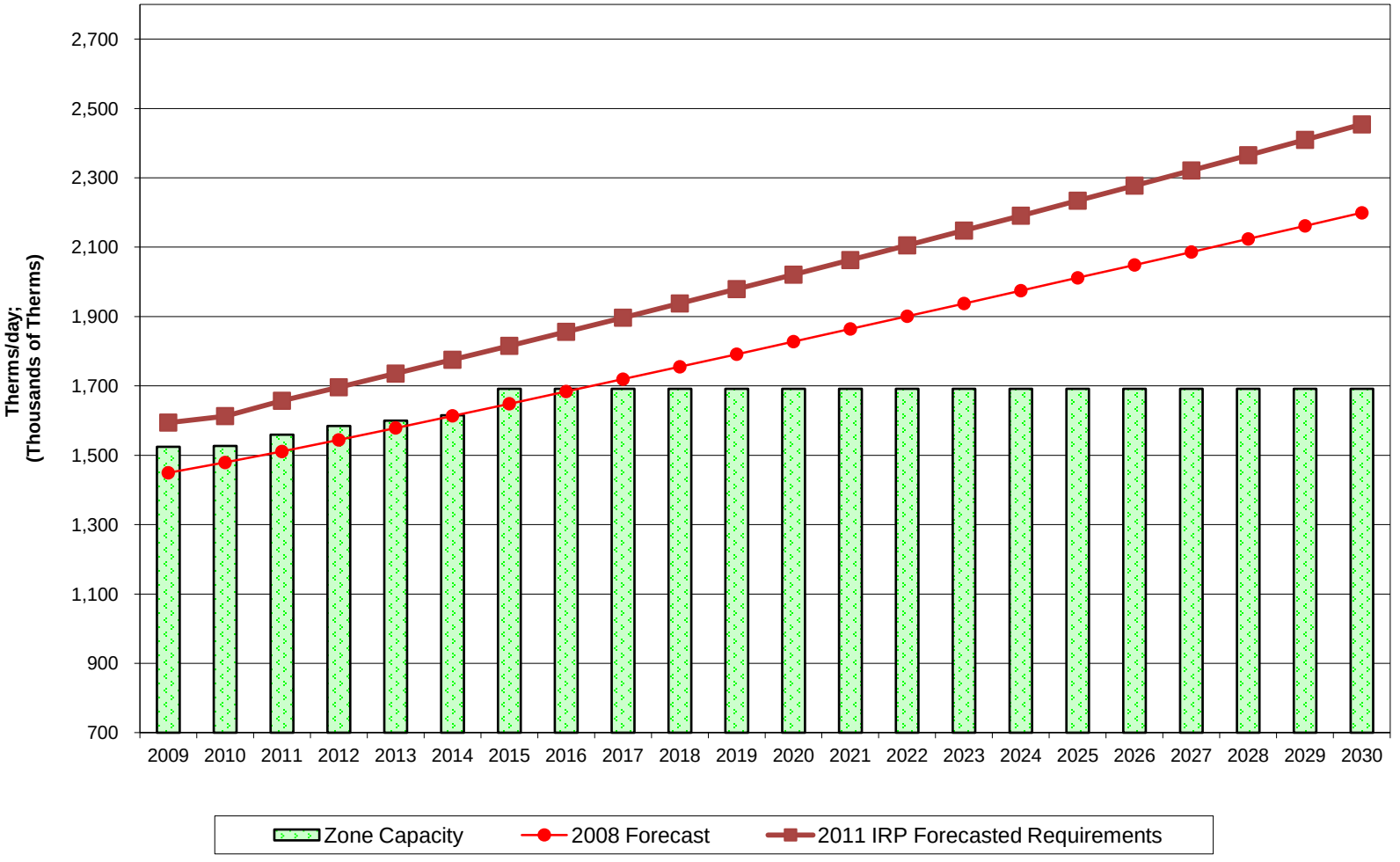
Note: WGPW Capacity is net of Non-Core primary term capacity requirements

ZONE ME Peak Day Demand & Existing Capacity Resources
Medium Load Forecast



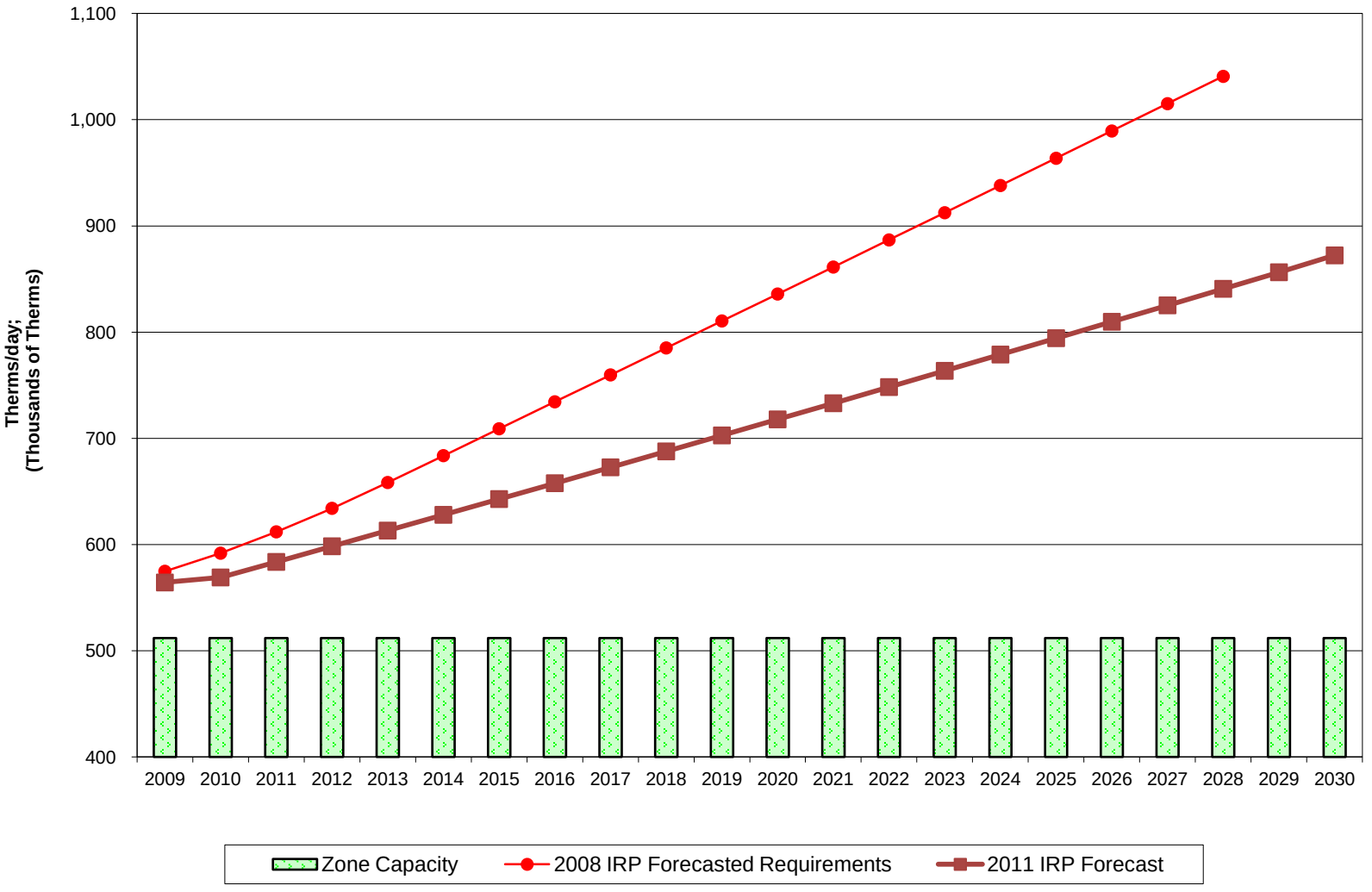
Note: WGPW Capacity is net of Non-Core primary term capacity requirements

ZONE 30 Peak Day Demand & Existing Capacity Resources
Medium Load Forecast



Note: WGPW Capacity is net of Non-Core primary term capacity requirements

ZONE GTN Peak Day Demand & Existing Capacity Resources
Medium Load Forecast

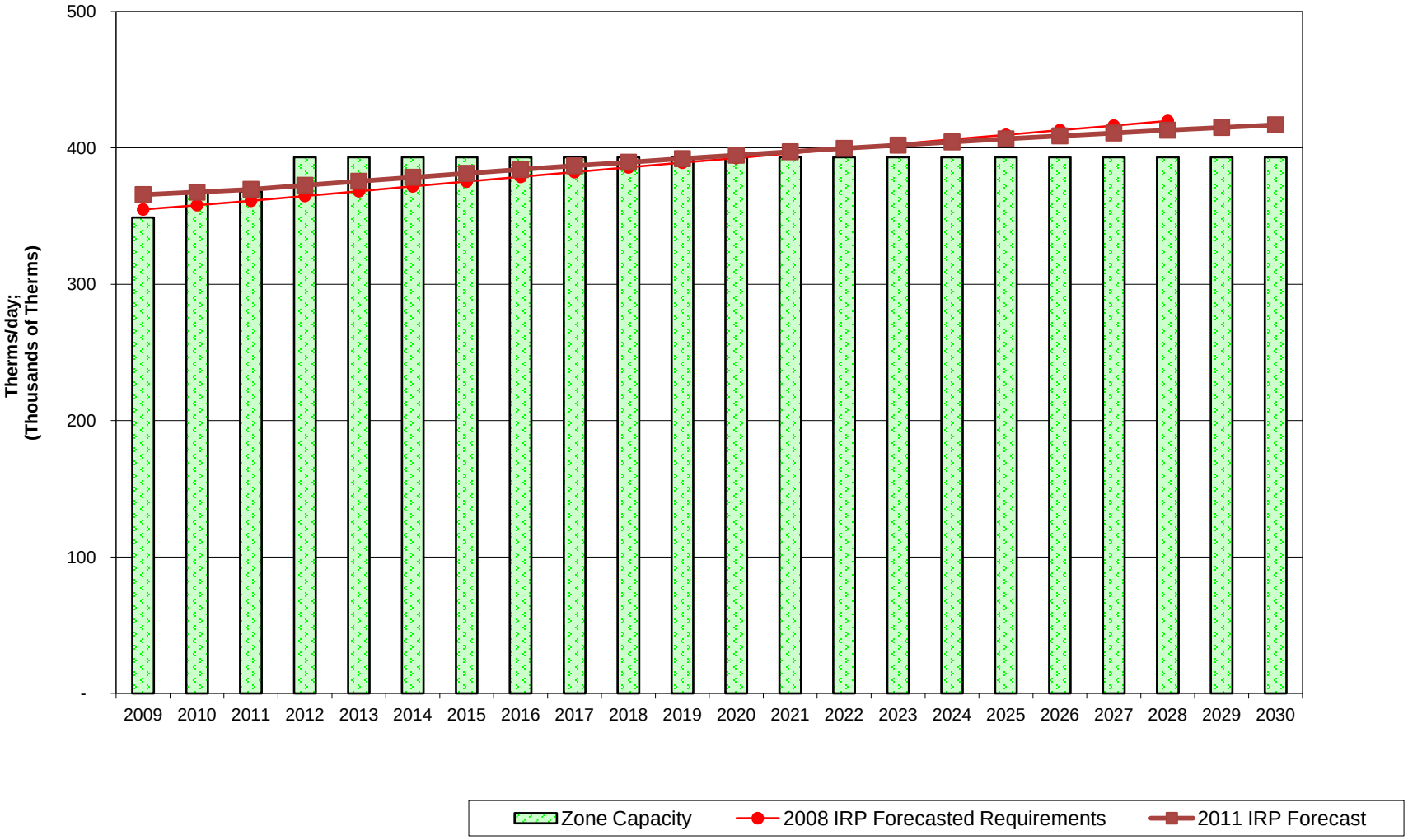


Note: WGPW Capacity is net of Non-Core primary term capacity requirements

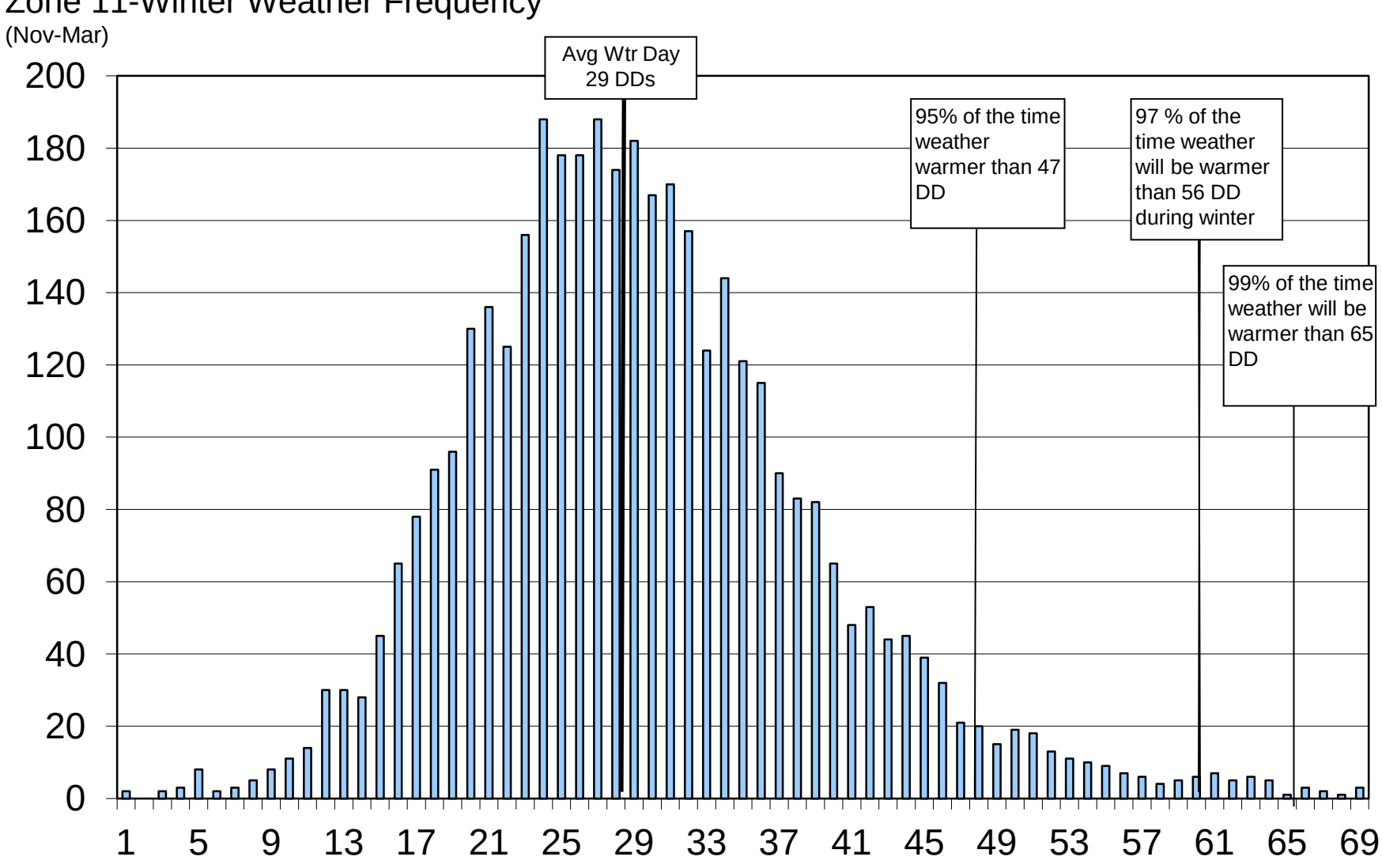
Peak Day & Capacity Shortfall Analysis

- Identify Capacity Shortfalls
  - Overall Pipeline Receipt Capabilities vs Peak Day Demand
  - Delivery Capabilities at the Gate (MDDOs)
  - Distribution System Needs
- **Identify/Evaluate solutions**
  - **Determining magnitude of shortfall (degree day coverage)**

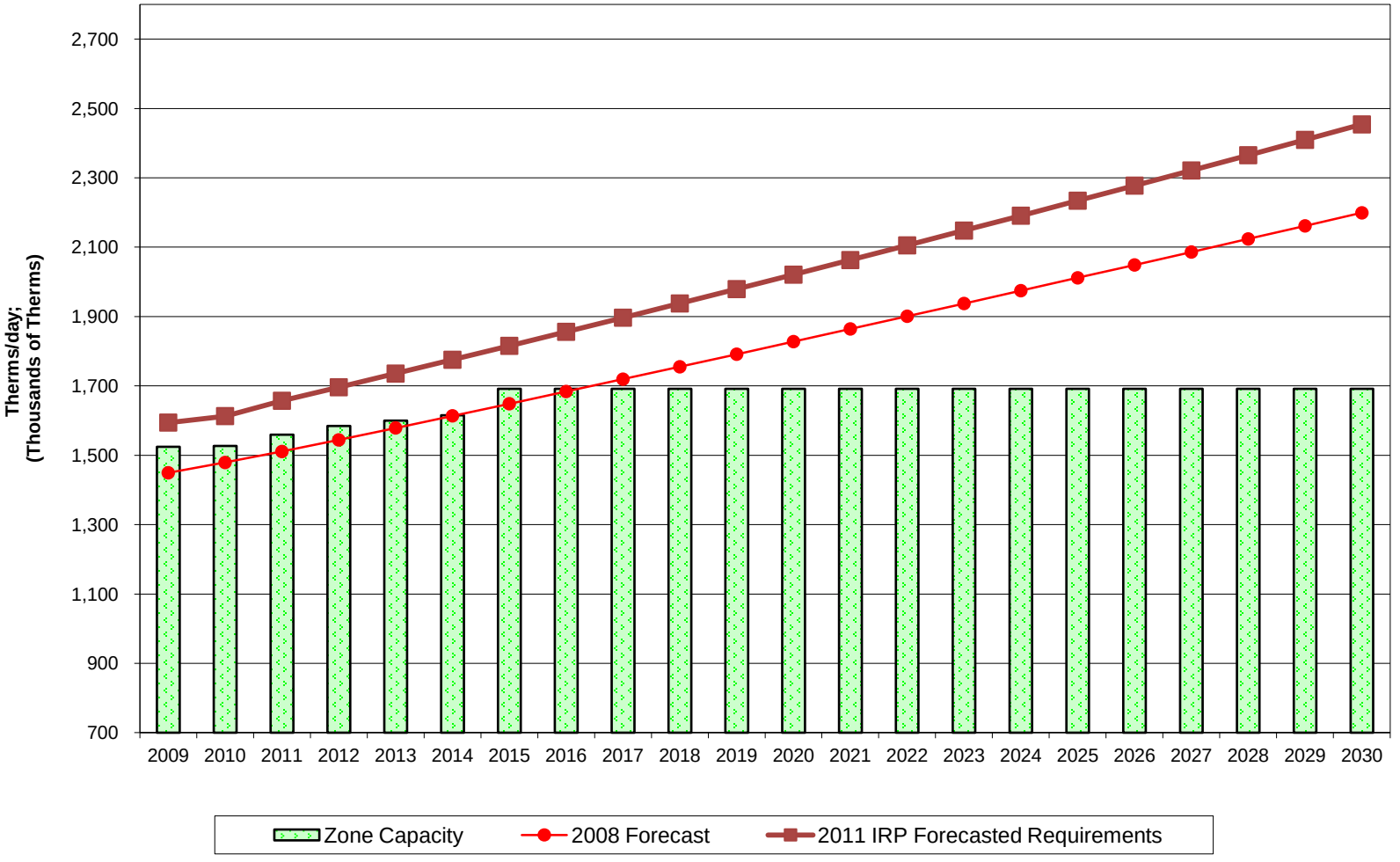
ZONE 11 Peak Day Demand & Existing Capacity Resources
Medium Load Forecast



Note: WGPW Capacity is net of Non-Core primary term capacity requirements

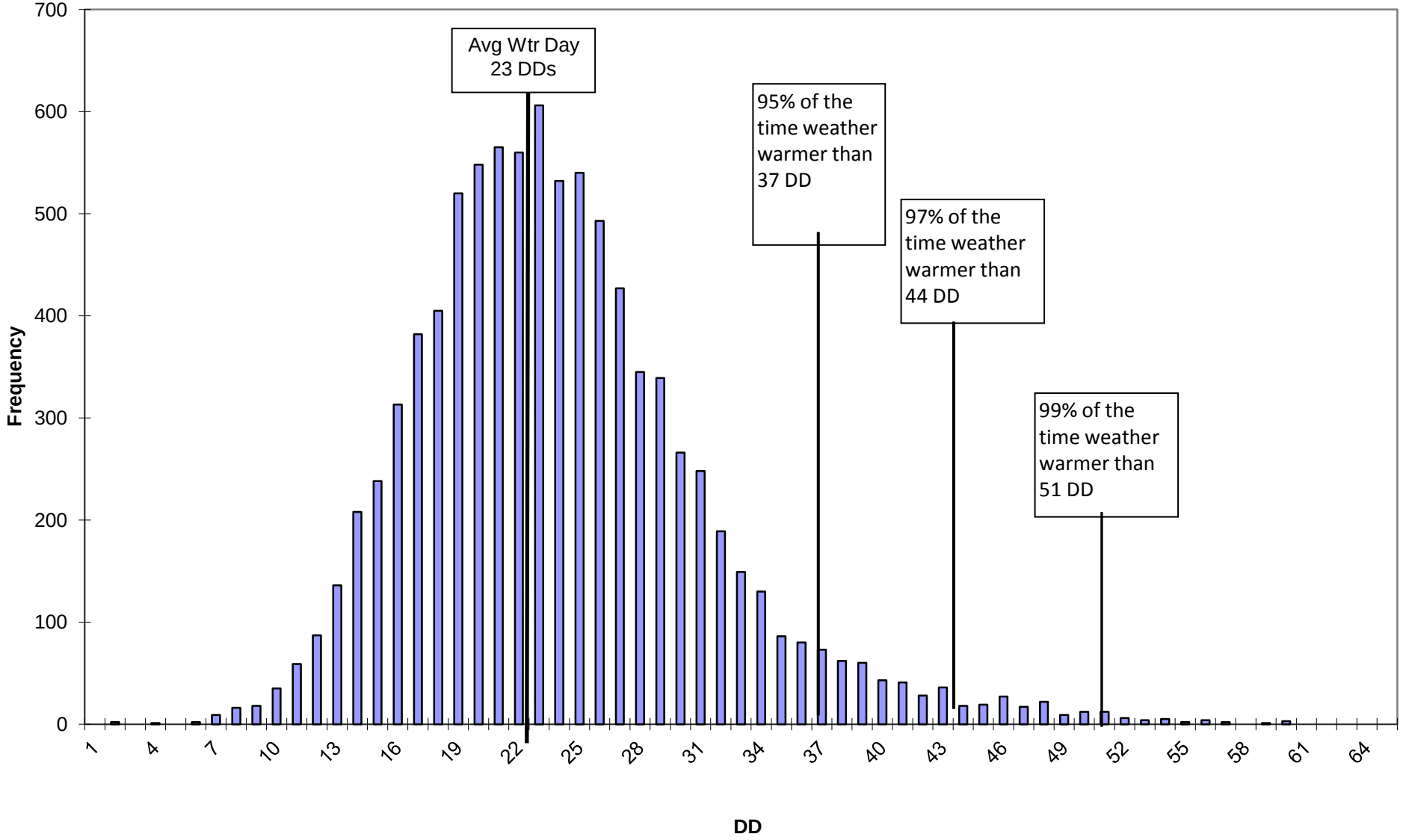

Zone 11-Winter Weather Frequency
(Nov-Mar)
Avg Wtr Day
29 DDs
95% of the time weather warmer than 47 DD
97 % of the time weather will be warmer than 56 DD during winter
99% of the time weather will be warmer than 65 DD
200
180
160
140
120
100
80
60
40
20
0
1
5
9
13
17
21
25
29
33
37
41
45
49
53
57
61
65
69

ZONE 30 Peak Day Demand & Existing Capacity Resources
Medium Load Forecast

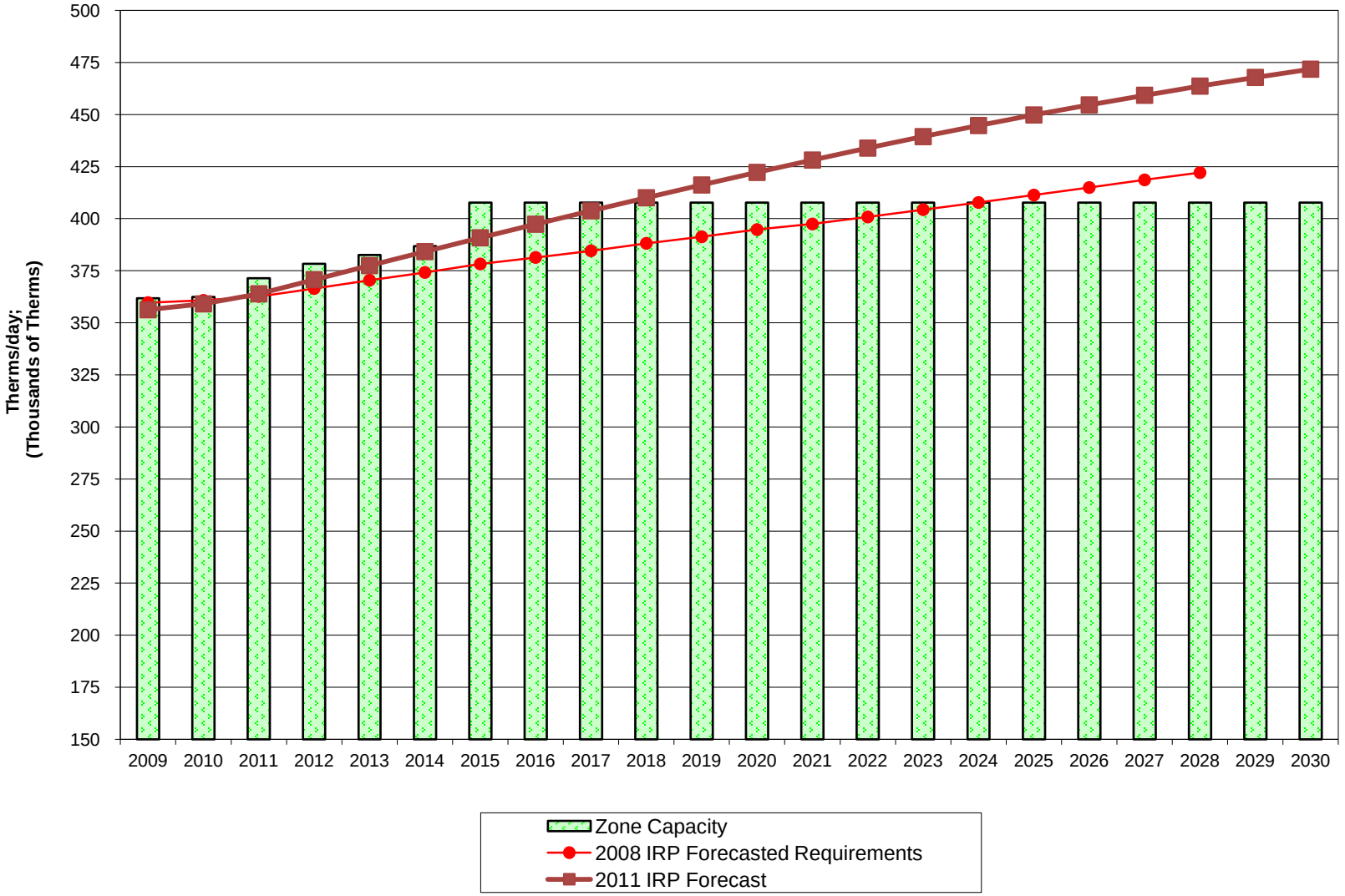


Note: WGPW Capacity is net of Non-Core primary term capacity requirements

Zone 30-W Winter Weather Frequency (Nov-Mar)

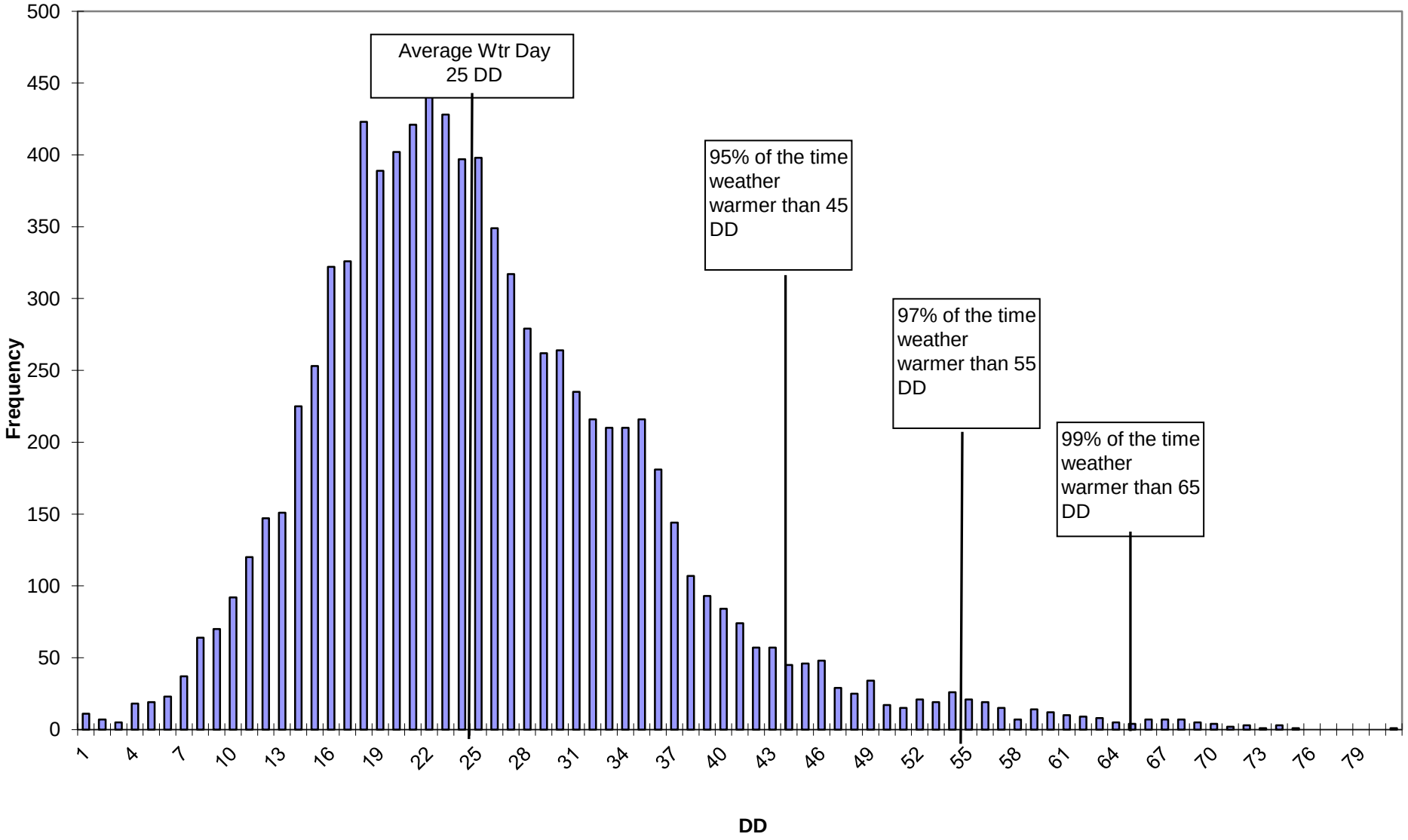


ZONE ME Peak Day Demand & Existing Capacity Resources
Medium Load Forecast

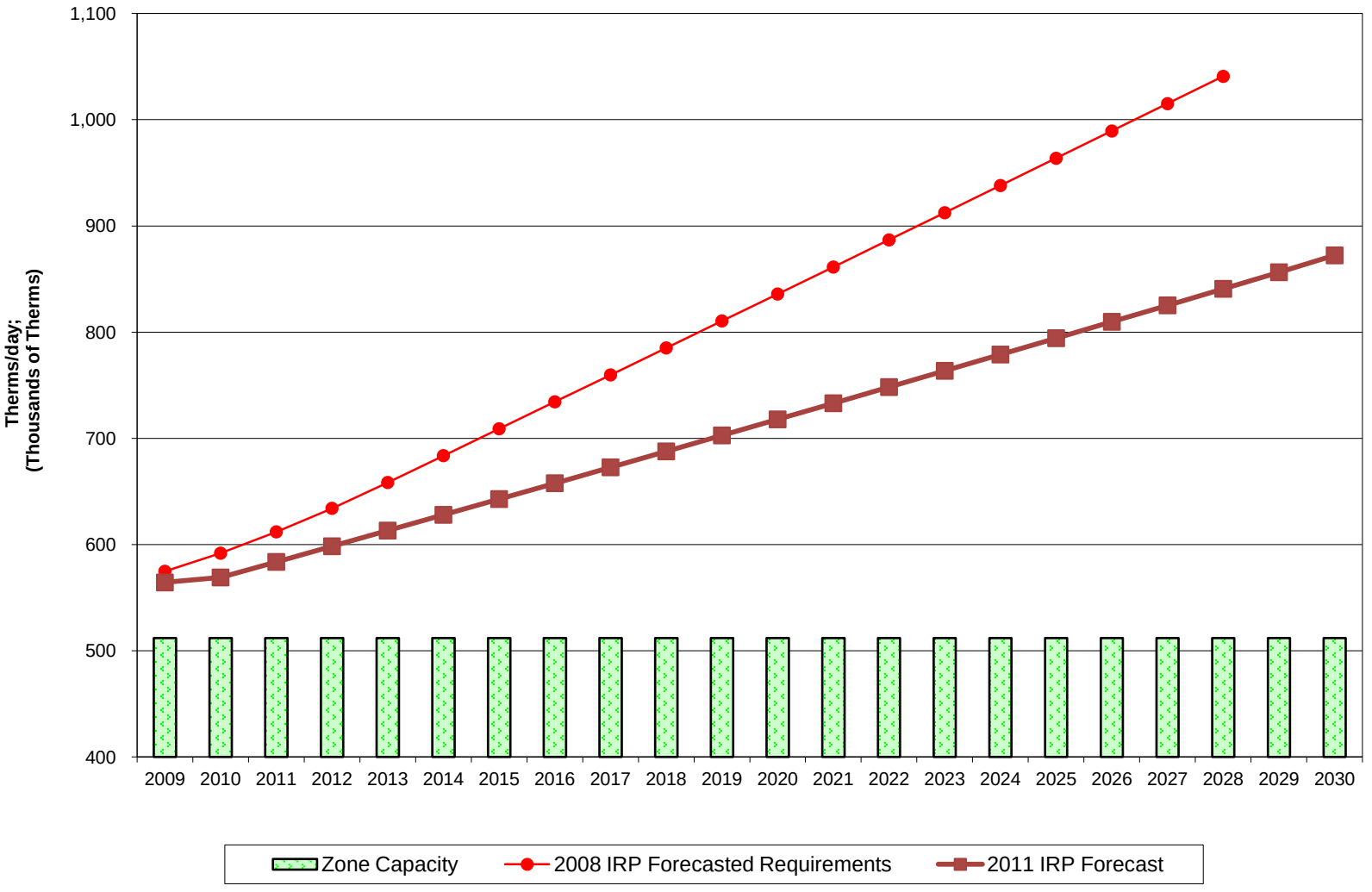


Note: WGPW Capacity is net of Non-Core primary term capacity requirements

Zone ME Winter Weather Frequency (Nov-Mar)



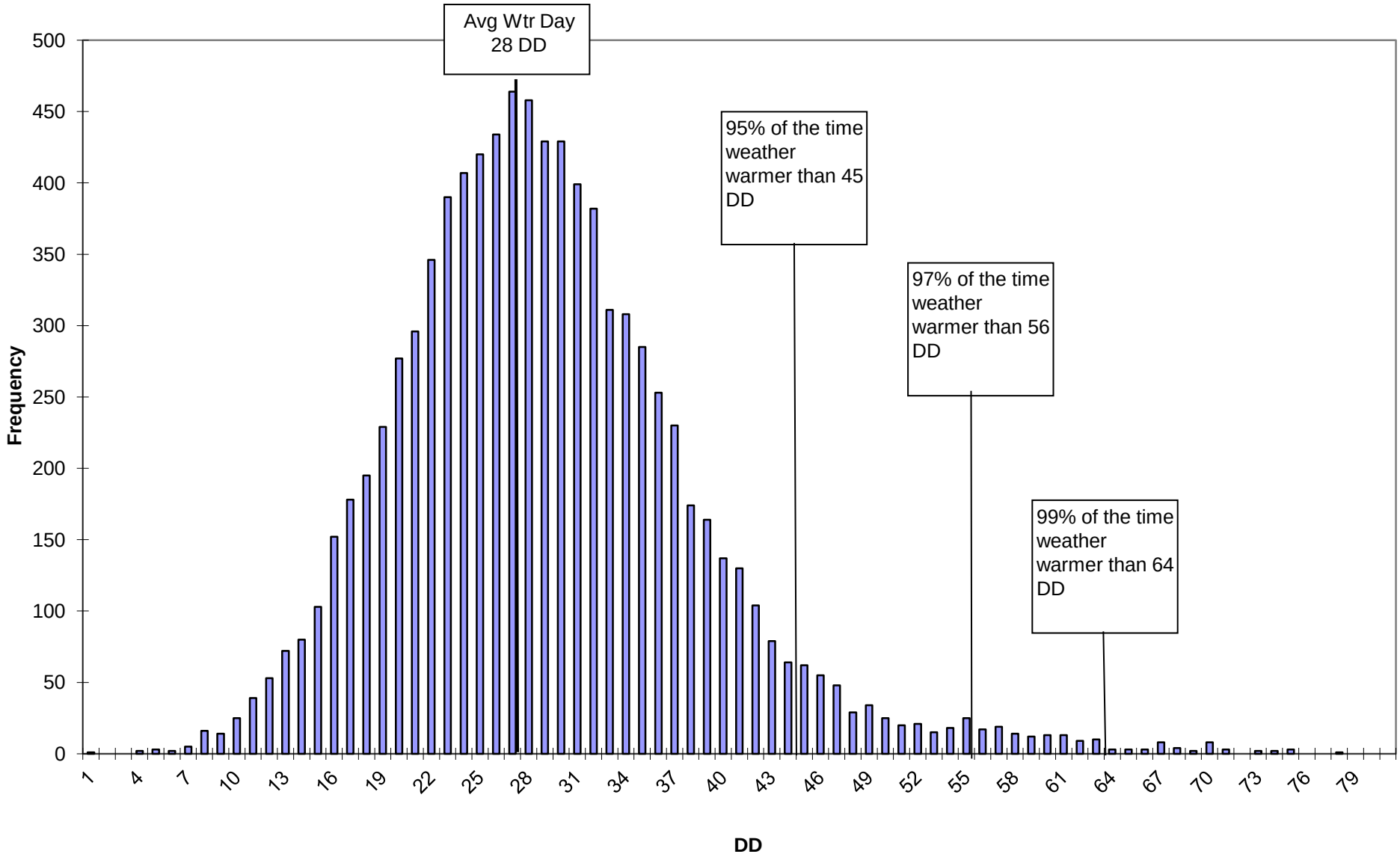
ZONE GTN Peak Day Demand & Existing Capacity Resources
Medium Load Forecast



Note: WGPW Capacity is net of Non-Core primary term capacity requirements

Zone GTN-Winter Weather Frequency

(Nov-Mar)



PRICE FORECAST

Price Forecast

- Cascade's long term planning price forecast is based on a blend of current market pricing along with long term fundamental price forecasts.
- Since pricing on the market is heavily influenced by Henry Hub prices, the Company closely monitors this market trend.
- While not a guarantee of where the market will ultimately finish, the current market (NYMEX) is the most current information available that provides some direction
- Future basis differential in our physical supply receiving areas (Sumas,AECO, Rockies) is trading.

Price Forecast

- The fundamental forecasts include Wood Mackenzie, Energy Information Administration (EIA), Northwest Power Planning Council, the Texas Comptroller and the Financial Forecast Center's long term price forecasts.
- Wood MacKenzie publishes a long-term price forecast periodically throughout to subscribing customers. This forecast is broken down by month through the planning horizon and includes Henry Hub as well as basis differentials for our receiving areas.
- The Company recently terminated our subscription to Wood Mackenzie and has now subscribed to BENTEK; we are working with them do develop a 20 year price forecast; we are also considering contracting with Wood Mackenzie for access to their 20 year price forecast.
- Many of the other sources above also only provide price forecasts by year. Given Cascade's load profile and the need for more winter gas than summer, the company develops a pattern based on the market monthly forward prices to create a long-term, monthly Henry Hub price.

Price Forecast

- Since the company's physical supply receiving areas (Sumas, AECO, and Rockies) are at a discount to Henry Hub, up until 2012 we utilized the basis differential from Wood Mackenzie's most recent update and compare that to the future markets basis trading as reported in public market.
- It is impossible to accurately predict the future, for trading purposes, the most recent period has been the best indicator of the direction of the market.
- Correspondingly, we applied a weighted average to determine the individual
- basis differential in the price forecast. Typically, we give the most weight to the current NYMEX Henry Hub price in the early years.
- As our forecast moves ahead we start to reduce the impact of the NYMEX (and the impact of speculation and other market uncertainties) and give greater weight to NWPPC, Wood Mackenzie (we plan to replace WM with BENTEK) and EIA.
- In order to determine the low case and high case, the Company utilized the EIA
- economic growth factors (EIA Annual Energy Outlook 2011, Table E-1). This resulted inusing 2.1 for the Low Case, 2.7 for the Reference Case and 3.2 for the High Case.

Wrap up

- Questions?
- Comments?
- Action List

- Next meeting will be at the Conference Center at SeaTac International Airport on Wednesday, April 11th.

Adjourn

2012 Integrated Resource Plan

Technical Advisory Group Meeting

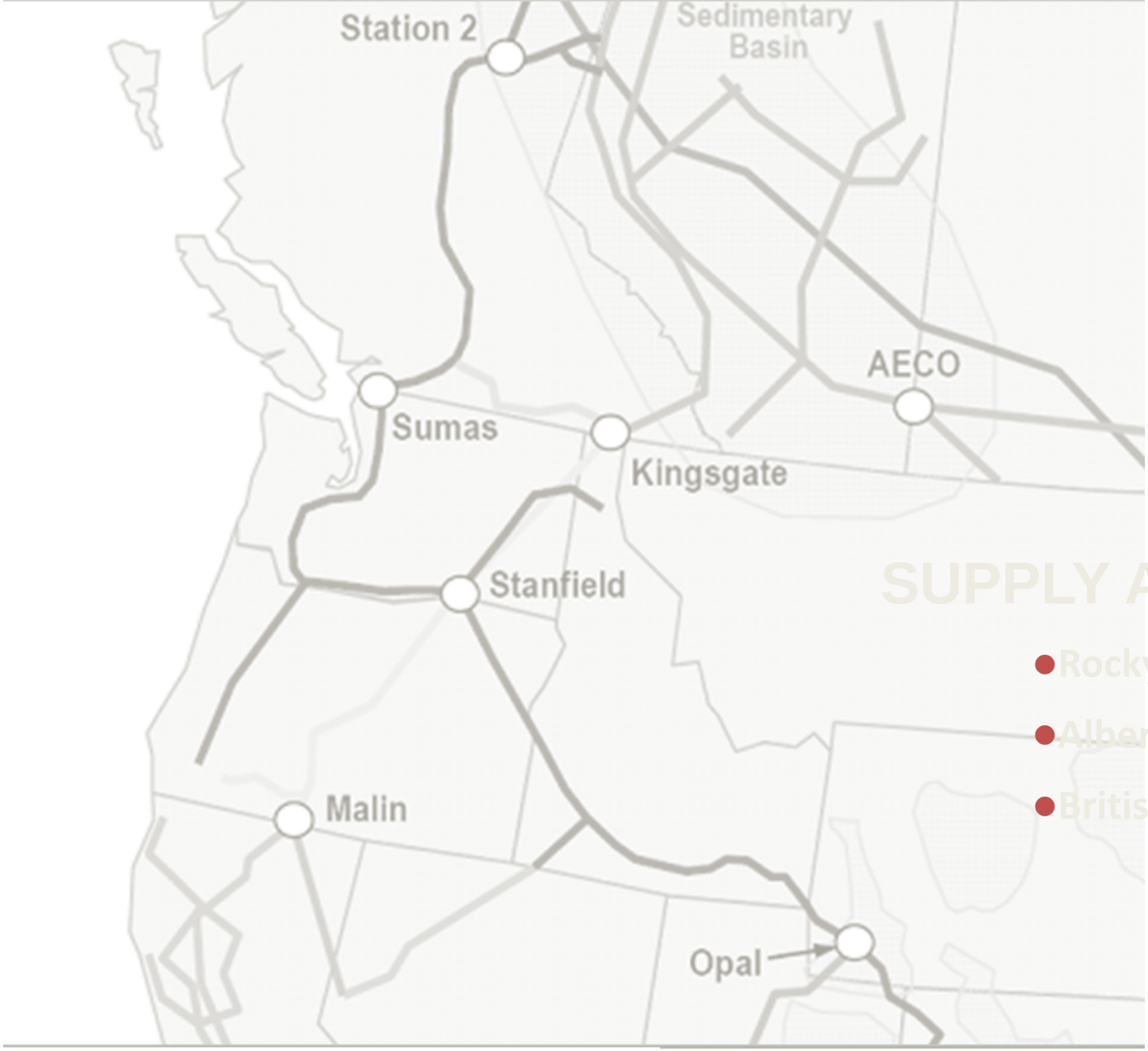
April 11, 2012

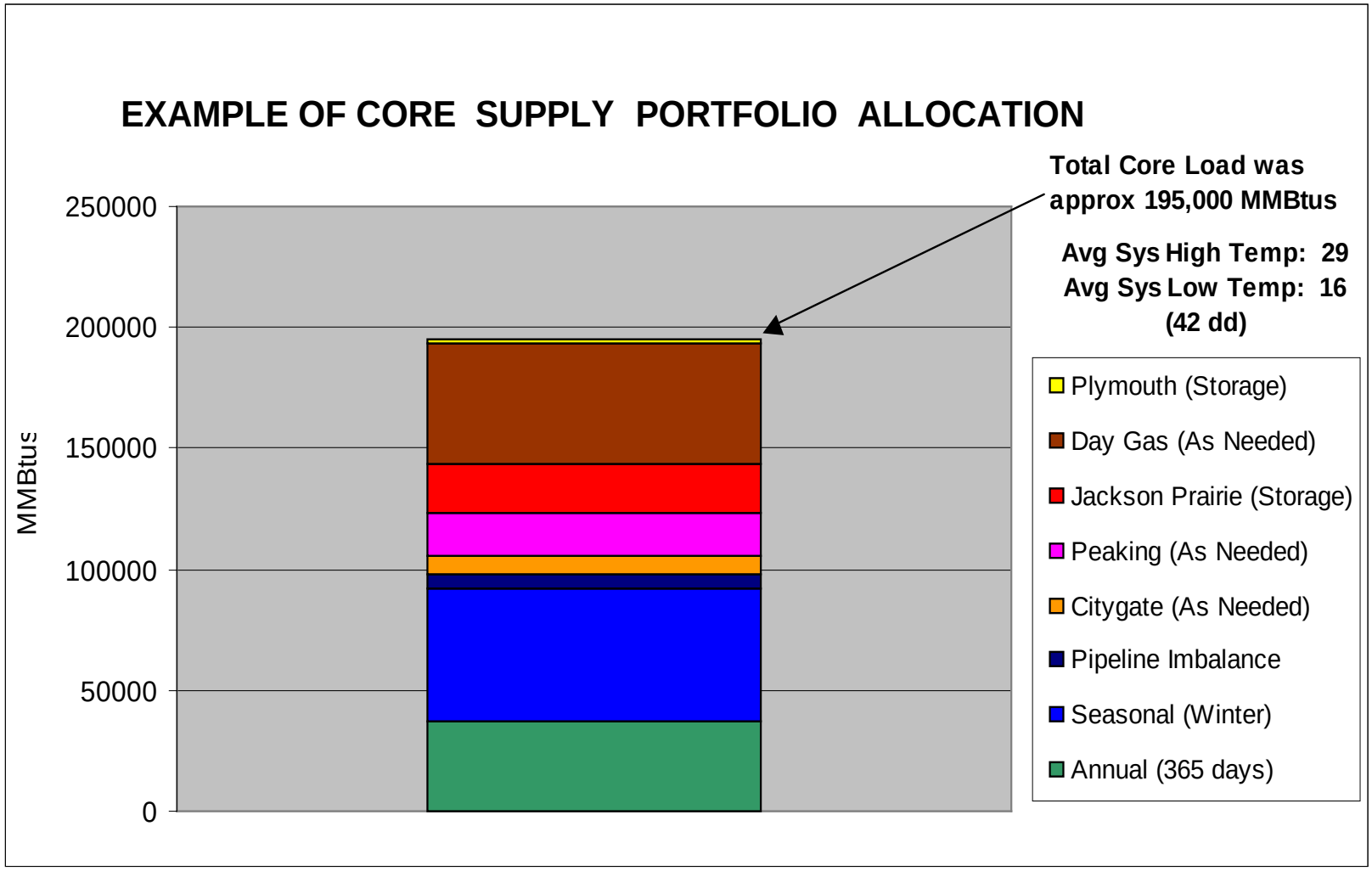
Supply Side Resource Overview

Mark Sellers-Vaughn
Manager, Supply Resource Planning

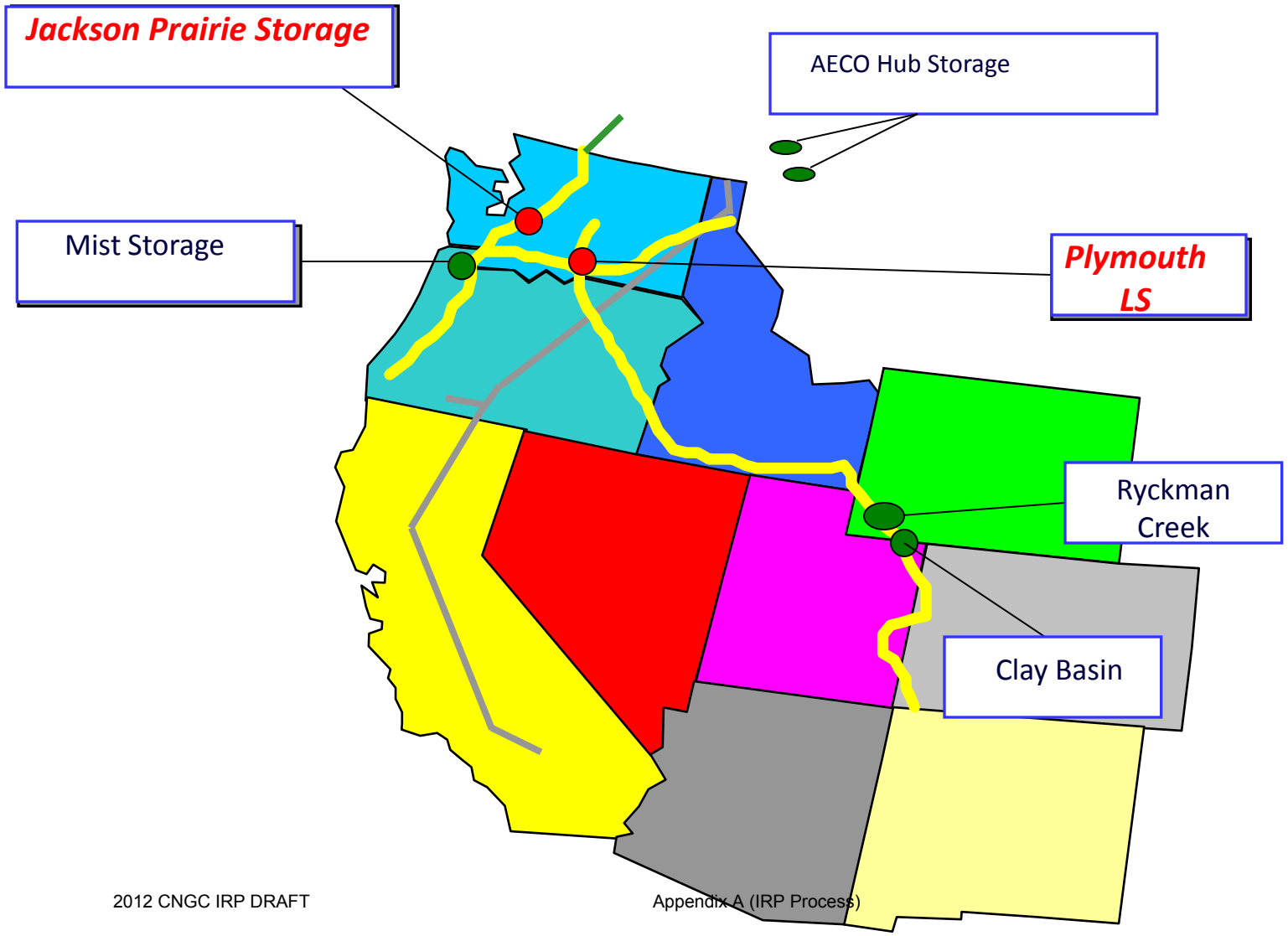
Agenda

- Introductions
- Supply Side Resources
- Existing
- Challenges and Alternatives
- Production
- Price Forecast
- General discussion on Scenarios and Model Elements for Supply Resources
- Closing Discussion
  - Future meeting dates/Other Comments

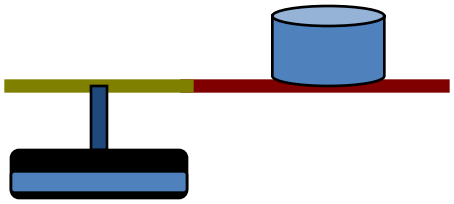

Station 2
Sedimentary Basin
AECO
Sumas
Kingsgate
Stanfield
Malin
Opal
SUPPLY AREAS
Rocky Mountains
Alberta
British Columbia


EXAMPLE OF CORE SUPPLY PORTFOLIO ALLOCATION
Total Core Load was approx 195,000 MMBtus
Avg Sys High Temp: 29
Avg Sys Low Temp: 16
(42 dd)
MMBtus
250000
200000
150000
100000
50000
0
Plymouth (Storage)
Day Gas (As Needed)
Jackson Prairie (Storage)
Peaking (As Needed)
Citygate (As Needed)
Pipeline Imbalance
Seasonal (Winter)
Annual (365 days)

STORAGE FACILITIES
(Cascade leased storage locations in red)



Storage



- Jackson Prairie #1
  - Seasonal Qty of 604,351 dths
  - Withdrawal capability 16,789 dths
  - Expires 10/31/2019
- Jackson Prairie #2
  - Seasonal Qty of 350,000 dths (August 2012)
  - Withdrawal capability 30,000 dths
  - Expires 10/31/2060
- Plymouth LNG
  - Seasonal Qty of 562,000 dths
  - Withdrawal capability of 60,000 dths
  - Expires 10/31/2019

Storage Management

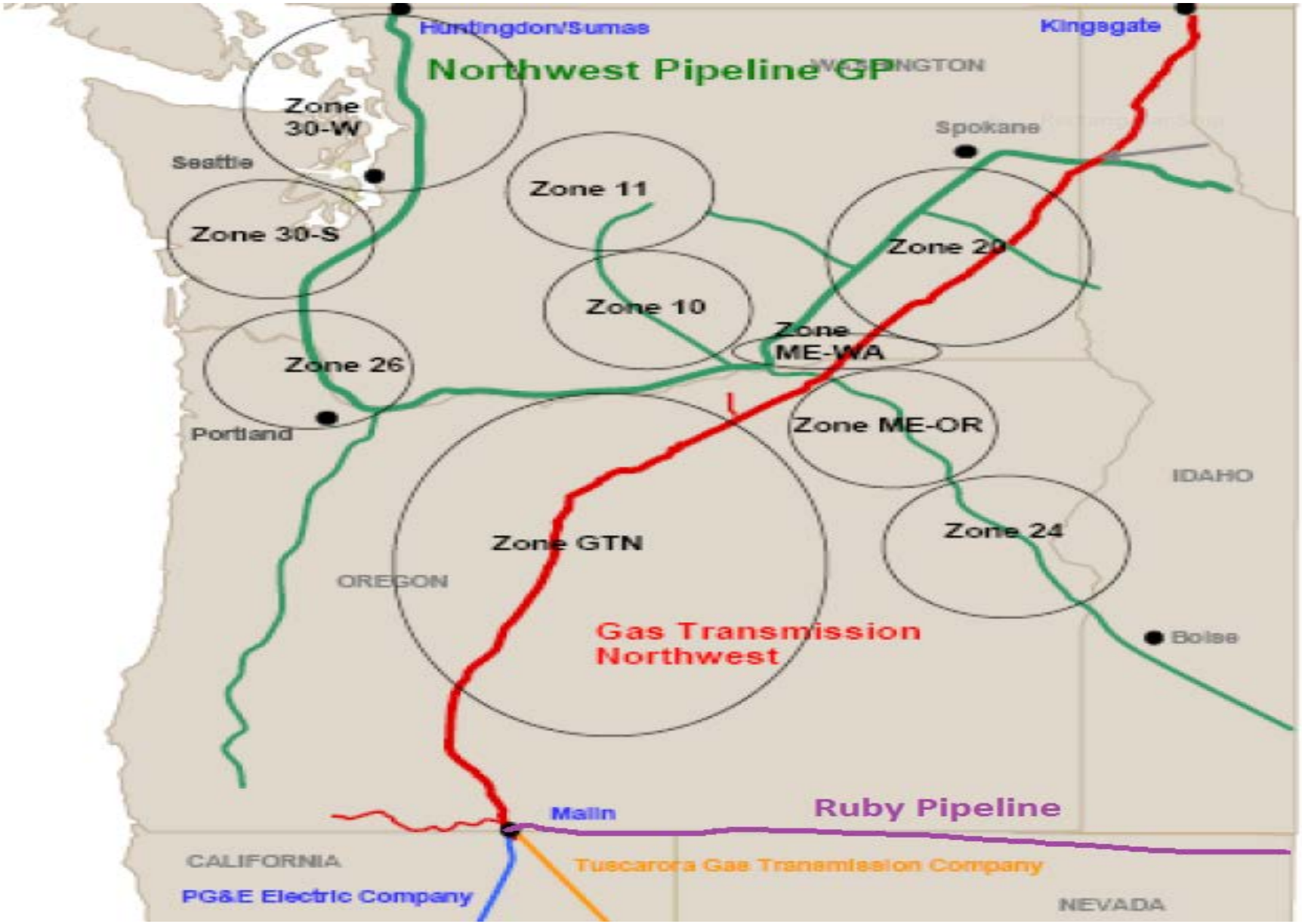
- We weigh storage usage versus Spot/Daily Supply Costs and operational conditions
- Typically CNG uses storage withdrawals in the winter and inject in the summer
- CNG allows others to manage our risk for a profit to the bottom line

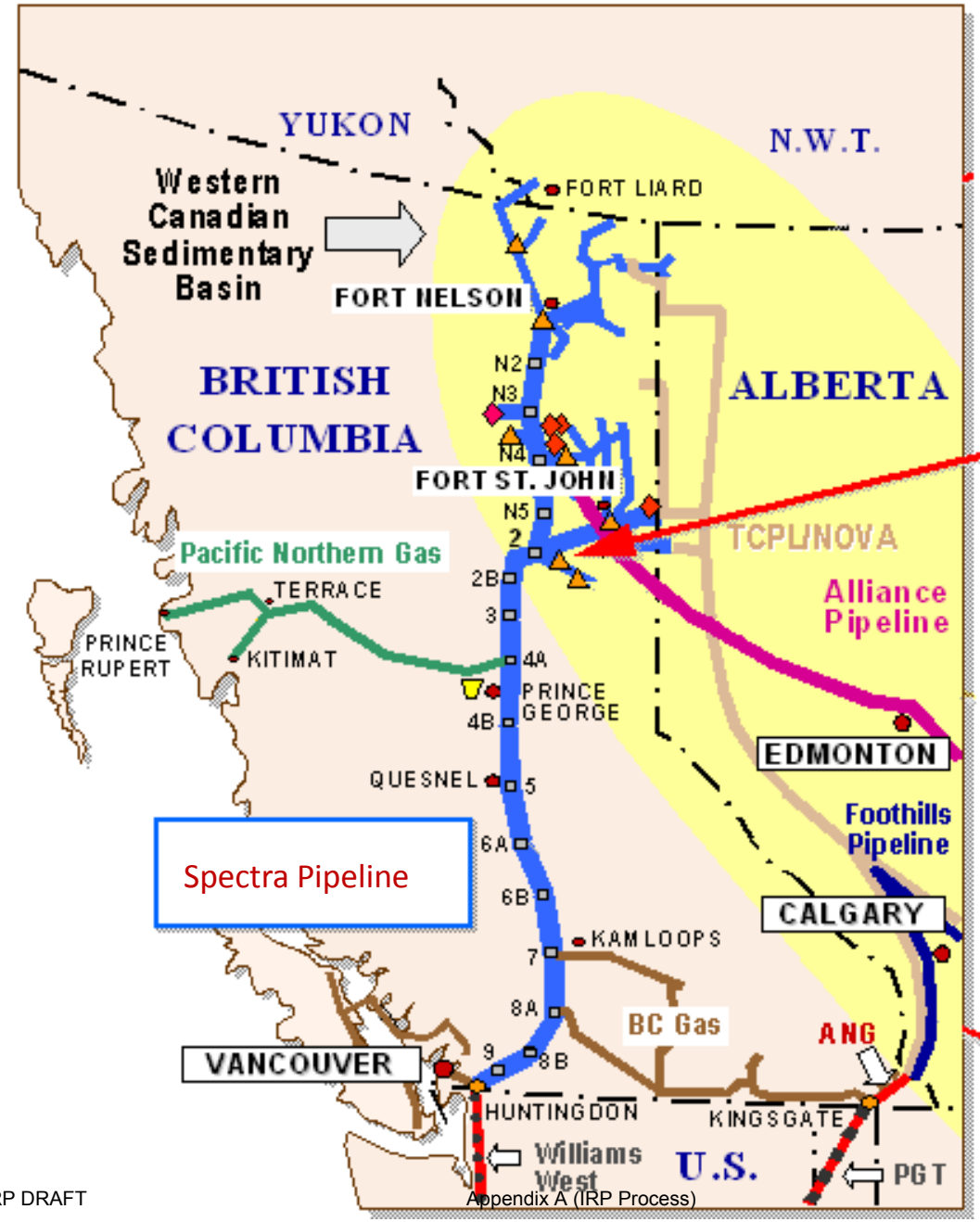
CAPACITY RESOURCES

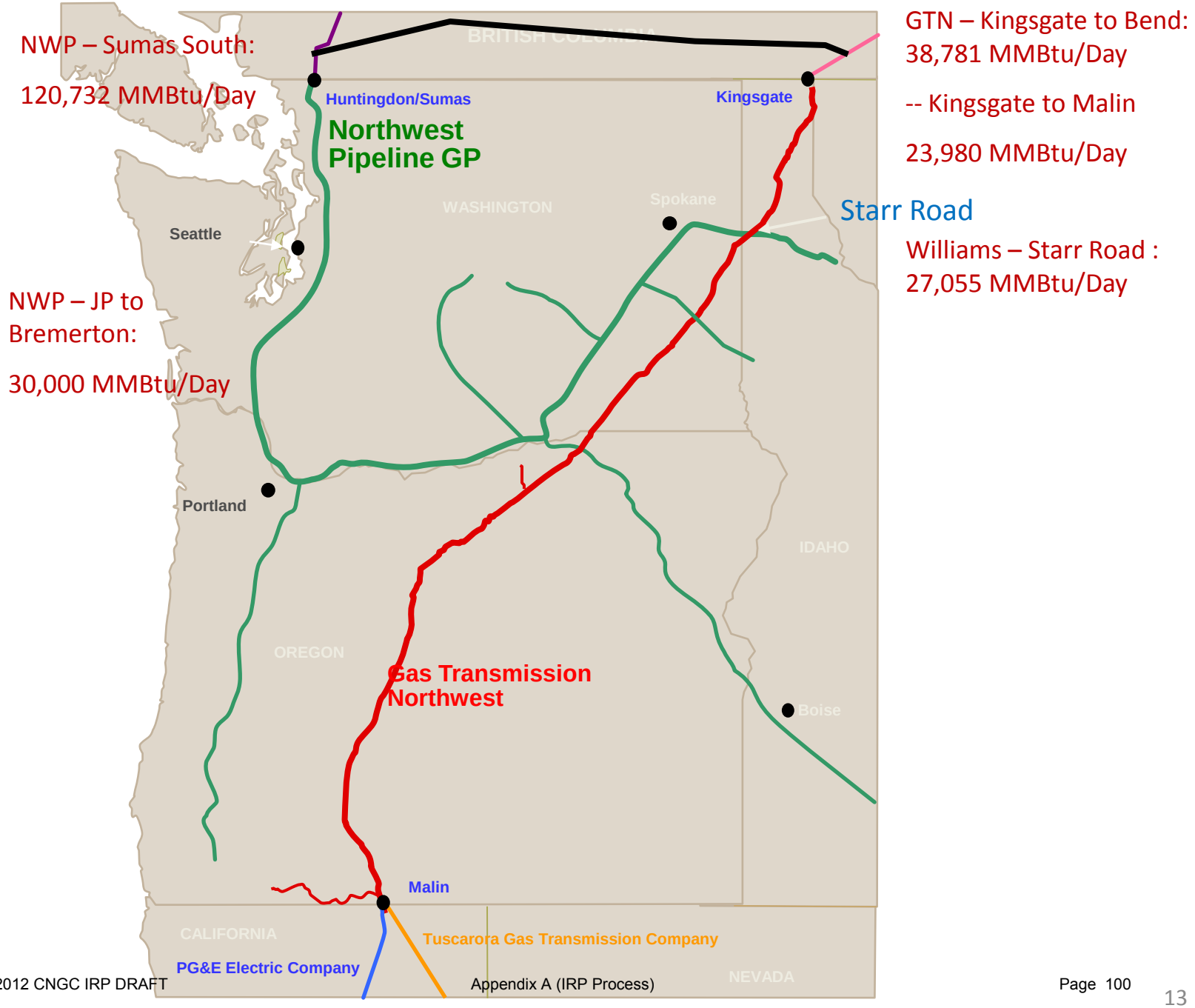
INTERSTATE PIPELINE TRANSPORTATION

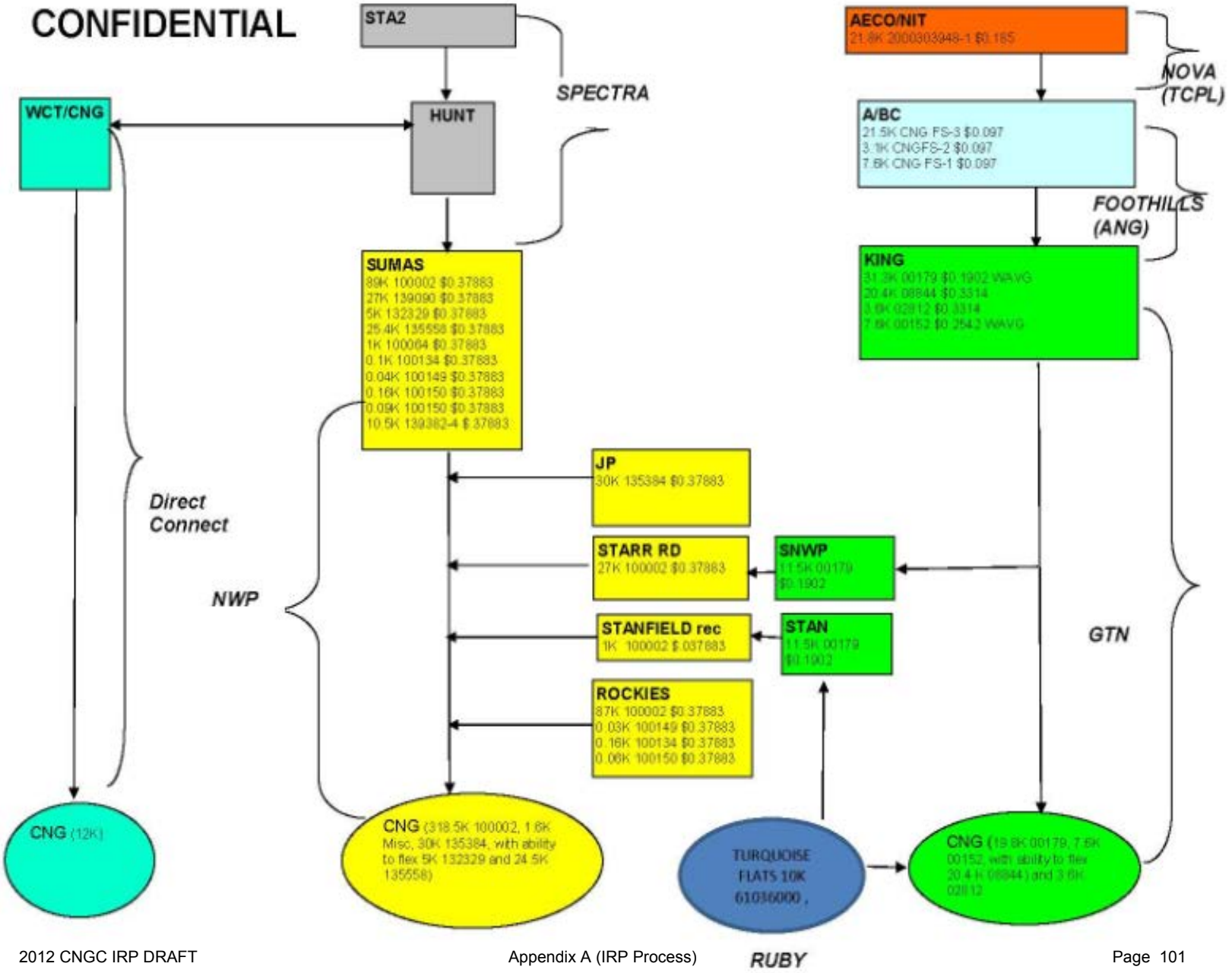
- NORTHWEST PIPELINE
- SPECTRA ENERGY (WESTCOAST)
- GAS TRANSMISSION NORTHWEST (GTN)
- FOOTHILLS PIPELINE (ANG)
- NOVA (NGTL)

CAPACITY RELEASE ELECTRONIC BULLETIN BOARDS (EBB)

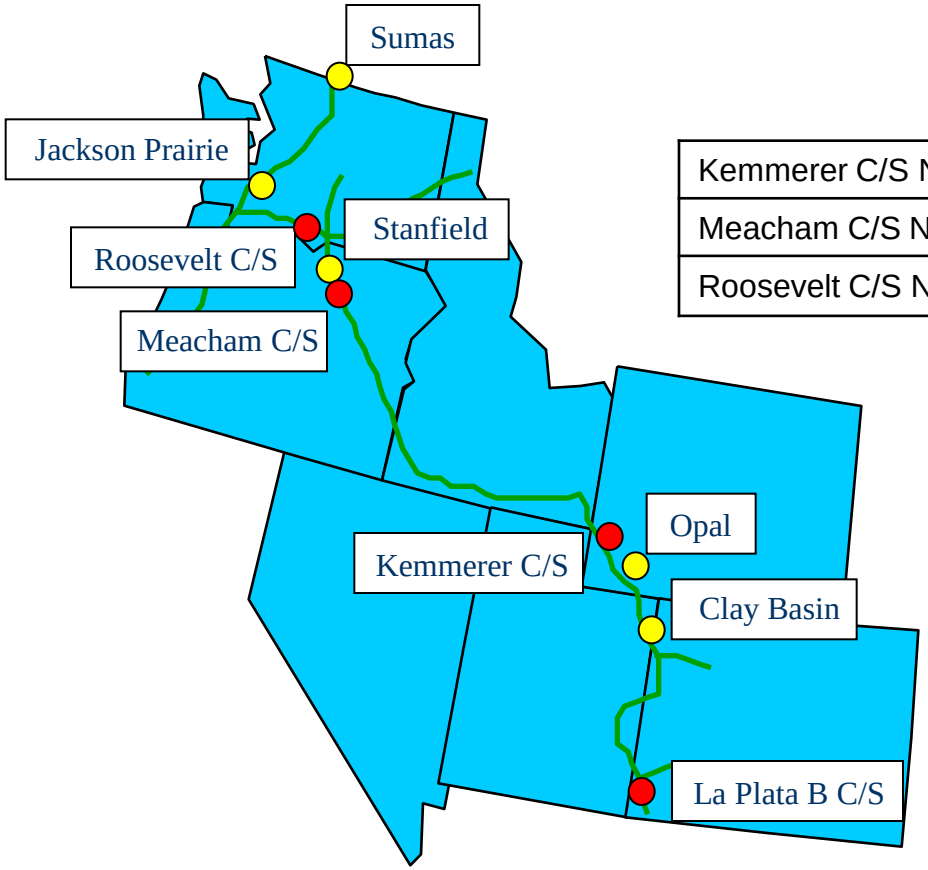

Huntingdon/Sumas
Kingsgate
Northwest Pipeline GP
WASHINGTON
Zone 30-W
Seattle
Spokane
Zone 11
Zone 30-S
Zone 20
Zone 10
Zone ME-WA
Zone 26
Portland
Zone ME-OR
IDAHO
Zone GTN
Zone 24
OREGON
Gas Transmission Northwest
Boise
Malin
Ruby Pipeline
CALIFORNIA
Tuscarora Gas Transmission Company
PG&E Electric Company
NEVADA


YUKON
N.W.T.
Western Canadian Sedimentary Basin
FORT LIARD
FORT NELSON
BRITISH COLUMBIA
ALBERTA
N2
N3
N4
FORT ST. JOHN
N5
2
2B
3
4A
4B
5
6A
6B
7
8A
8B
9
Pacific Northern Gas
TERRACE
PRINCE RUPERT
KITIMAT
PRINCE GEORGE
QUESNEL
KAMLOOPS
TCPL/NOVA
Alliance Pipeline
EDMONTON
Foothills Pipeline
CALGARY
Spectra Pipeline
BC Gas
ANG
VANCOUVER
HUNTINGDON
KINGSGATE
Williams West
U.S.
PGT
Spectra Station 2 to Sumas 20,000 MMBtu/Day
Station 2
NOVA to Kingsgate 21,800 MMBtu/Day


NWP – Sumas South:
120,732 MMBtu/Day
Huntingdon/Sumas
Northwest Pipeline GP
Kingsgate
GTN – Kingsgate to Bend:
38,781 MMBtu/Day
-- Kingsgate to Malin
23,980 MMBtu/Day
Starr Road
Williams – Starr Road :
27,055 MMBtu/Day
WASHINGTON
Spokane
Seattle
NWP – JP to Bremerton:
30,000 MMBtu/Day
Portland
IDAHO
OREGON
Gas Transmission Northwest
Boise
Malin
CALIFORNIA
Tuscarora Gas Transmission Company
PG&E Electric Company
NEVADA

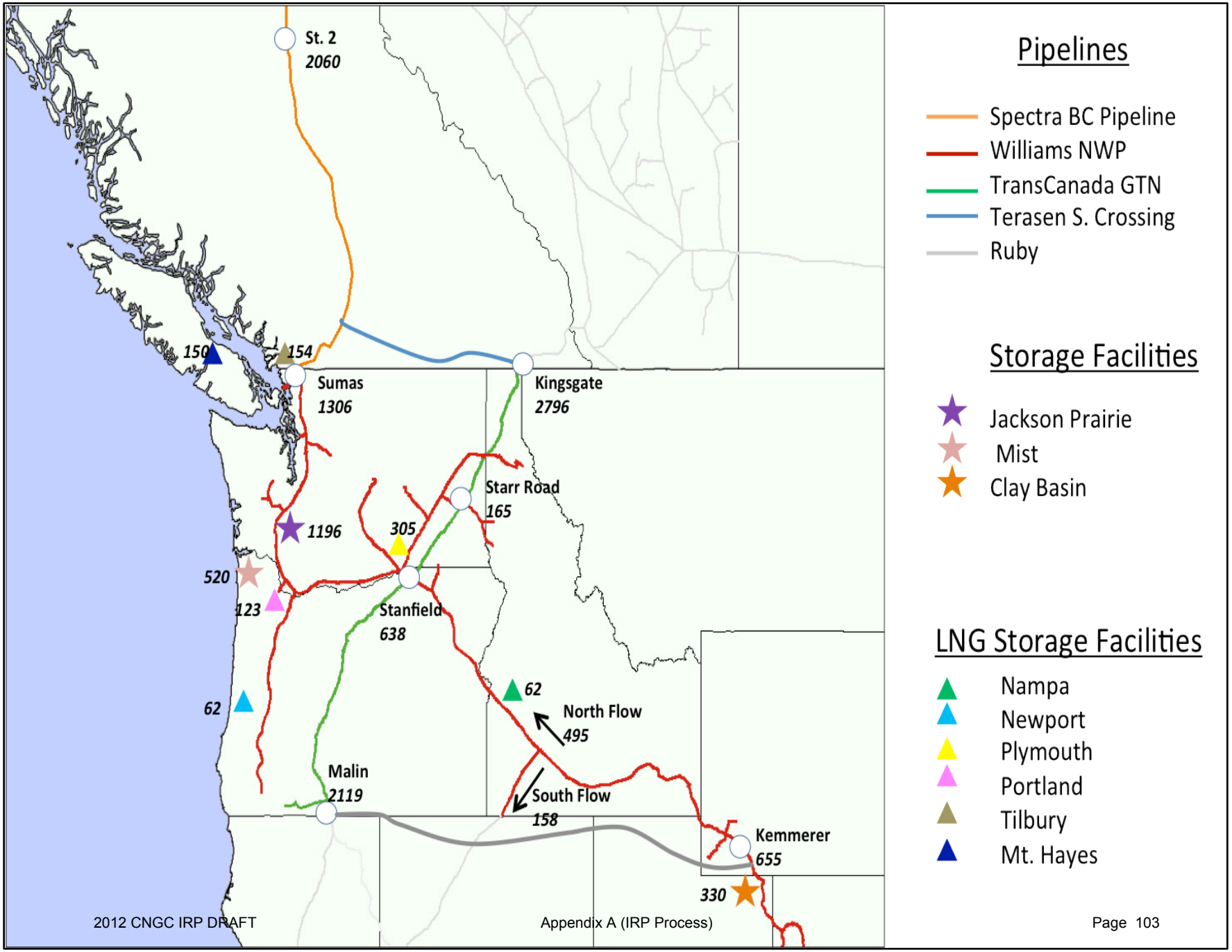

CONFIDENTIAL
STA2
SPECTRA
AECO/NIT
21.8K 2000303948-1 $0.185
NOVA (TCPL)
WCT/CNG
HUNT
A/BC
21.5K CNG FS-3 $0.097
3.1K CNGFS-2 $0.097
7.6K CNG FS-1 $0.097
FOOTHILLS (ANG)
SUMAS
89K 100002 $0.37883
27K 139090 $0.37883
5K 132329 $0.37883
25.4K 135558 $0.37883
1K 100084 $0.37883
0.1K 100134 $0.37883
0.04K 100149 $0.37883
0.16K 100150 $0.37883
0.09K 100150 $0.37883
10.5K 139382-4 $.37883
KING
31.3K 00179 $0.1902 WAVG
20.4K 08844 $0.3314
3.6K 02812 $0.3314
7.6K 00152 $0.2542 WAVG
JP
30K 135384 $0.37883
Direct Connect
STARR RD
27K 100002 $0.37883
SNWP
11.5K 00179 $0.1902
NWP
STANFIELD rec
1K 100002 $.037883
STAN
11.5K 00179 $0.1902
GTN
ROCKIES
87K 100002 $0.37883
0.03K 100149 $0.37883
0.16K 100134 $0.37883
0.06K 100150 $0.37883
CNG (12K)
CNG (318.5K 100002, 1.6K Misc, 30K 135384, with ability to flex 5K 132329 and 24.5K 135558)
TURQUOISE FLATS 10K 61036000 ,
CNG (19.8K 00179, 7.6K 00152, with ability to flex 20.4 K 08844) and 3.6K 02812
RUBY

Illustrative Constraint Points



	Physical Capacity	Primary Rights
Kemmerer C/S North Flow	655 MDth	721 MDth
Meacham C/S North Flow	440 MDth	573 MDth
Roosevelt C/S North Flow	544 MDth	804 MDth

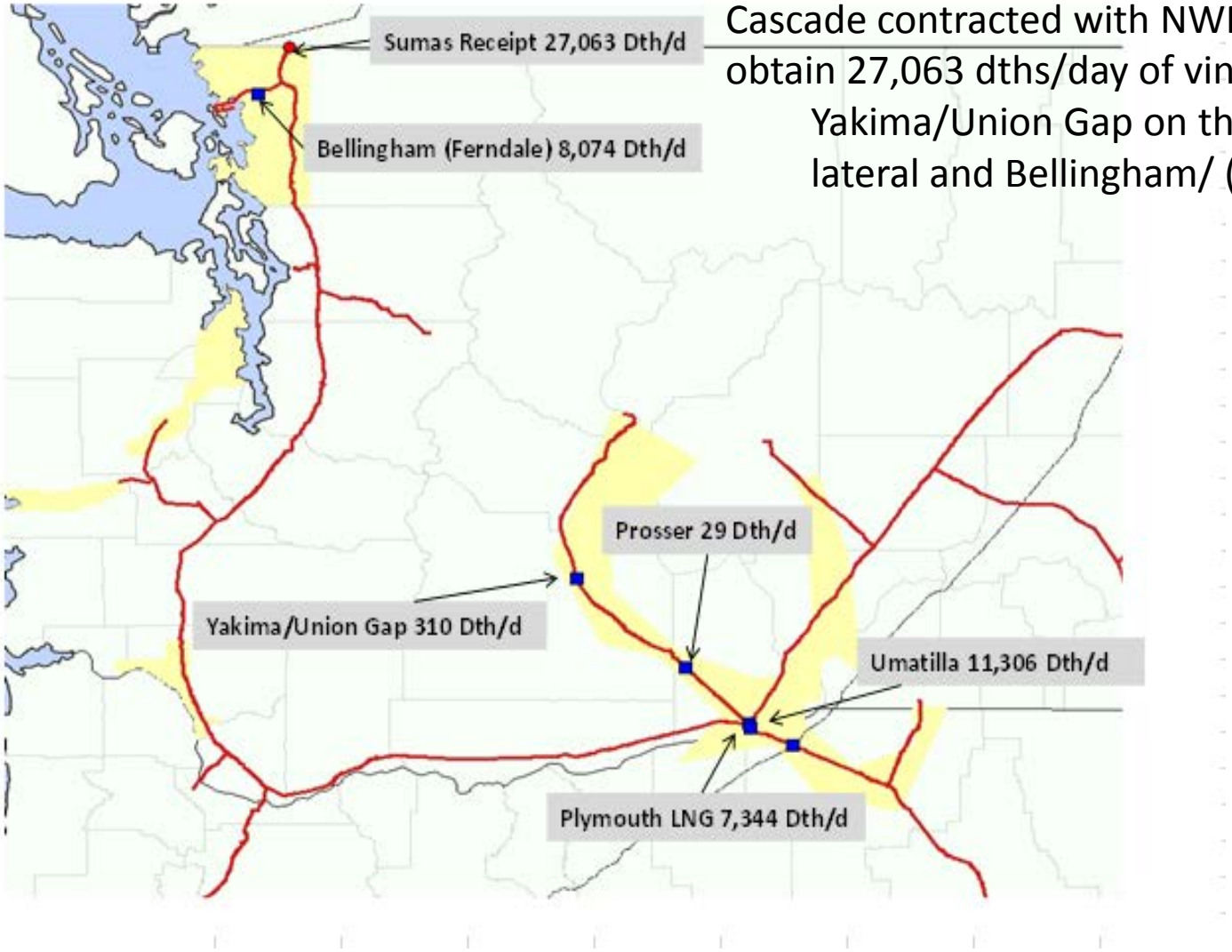
	Physical Capacity	Primary Rights
Chehalis C/S South Flow	629 MDth	803 MDth
Roosevelt C/S South Flow	396 MDth	725 MDth
La Plata C/S South Flow	348 MDth	411 MDth


St. 2
2060
150
154
Sumas
1306
Kingsgate
2796
Starr Road
165
1196
305
520
123
Stanfield
638
62
62
North Flow
495
Malin
2119
South Flow
158
Kemmerer
655
330
Pipelines
Spectra BC Pipeline
Williams NWP
TransCanada GTN
Terasen S. Crossing
Ruby
Storage Facilities
Jackson Prairie
Mist
Clay Basin
LNG Storage Facilities
Nampa
Newport
Plymouth
Portland
Tilbury
Mt. Hayes

SUPPPLY SIDE RESOURCE New Resources Acquired since 2010 IRP

NWP incremental vintage capacity acquisition to several shortfalls, including the Wenatchee lateral:

Cascade contracted with NWP in May 2011 to obtain 27,063 dths/day of vintage capacity Yakima/Union Gap on the Wenatchee lateral and Bellingham/ (Ferndale) gates.



NWP Incremental Vintage Capacity, effective 4/1/2012

Receipt Point	Delivery Pt	Del Pt Qty (Dths)
Sumas	Bellingham	8,074
Sumas	Prosser	29
Sumas	Yakima/Union Gap	310
Sumas	Umatilla	6,160
Sumas	Plymouth LNG	12,490

NWP incremental capacity acquisition to meet shortfalls in Zone 30-W:

Cascade contracted with NWP in December 2011 to obtain 10,500 dths/day of vintage capacity through a pre-arranged agreement that will provide additional MDDOs to Sedro-Woolley and by extension increase our firm rights in NWP Zone 30 (Cascade Zone 30-S and 30-W).

NWP Capacity

- This capacity was acquired to help meet projected shortfalls
  - Bellingham (Cascade Zone 30-W)
  - Wenatchee lateral (Cascade Zones 10 and 11),
  - Meacham section (Cascade Zones ME-OR and ME-WA)

- For example, in the case of Bellingham, Cascade has identified a peak day shortfall ranging between 10,000 dths/day in 2012 to approximately 46,000 dths by 2030.

- Marketers have proven unwilling to provide citygate supplies beyond a five year term.

- NWP has not identified any plans for a future system expansion in the area; although, if they do eventually have an expansion in the area having this capacity lessens the amount of incremental capacity (and associated facility enhancement costs) Cascade would need to secure

- Consequently, as vintage transport (currently $0.41 per dth) with a forty year term, this capacity represents the least expensive long-term option to meet peak day shortfall.

NWP Capacity

- At the time of the first package (Dec 2010) Even at Max rate, vintage capacity is considerably less expensive than proposed pipeline expansion projects including a Palomar/Blue Bridge type of scenario, which is anticipated to be upward of $.82/dkth and is not guaranteed to be built.

- Both TransAlta and Boardman coal-fired generation plants have committed to reduce and eventually cease operation and will likely be replaced with gas fired generation, providing greater interest in the capacity, particularly if Puget determines to add to their gas fired generation in the areas to meet power shortfalls identified in their integrated resource plan.

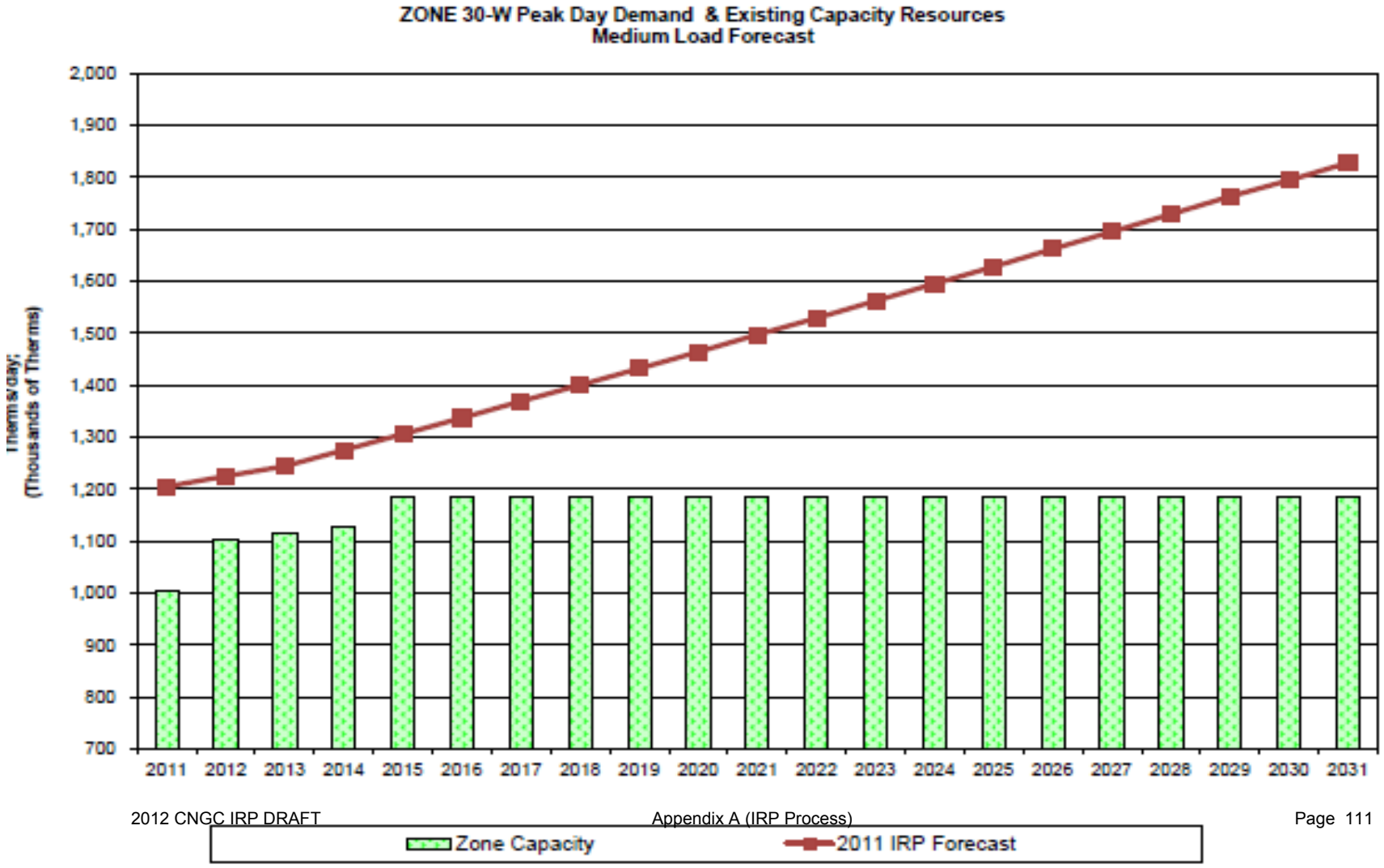
- Although this capacity will become effective prior to the actual need, NWP has not identified any plans for a future system expansion in the area; however, having this capacity would lessen the amount of incremental capacity (and associated costs) Cascade would need and pay for to participate in a future system expansion.

- Acquiring the proposed capacity from NWP will extend our ability to meet peak day in CNG Zone 30-W to around the 2022 time frame. The combined Zone 30-S and Zone 30-W (the actual nominated zone) would have sufficient capacity to meet peak day through 2026.

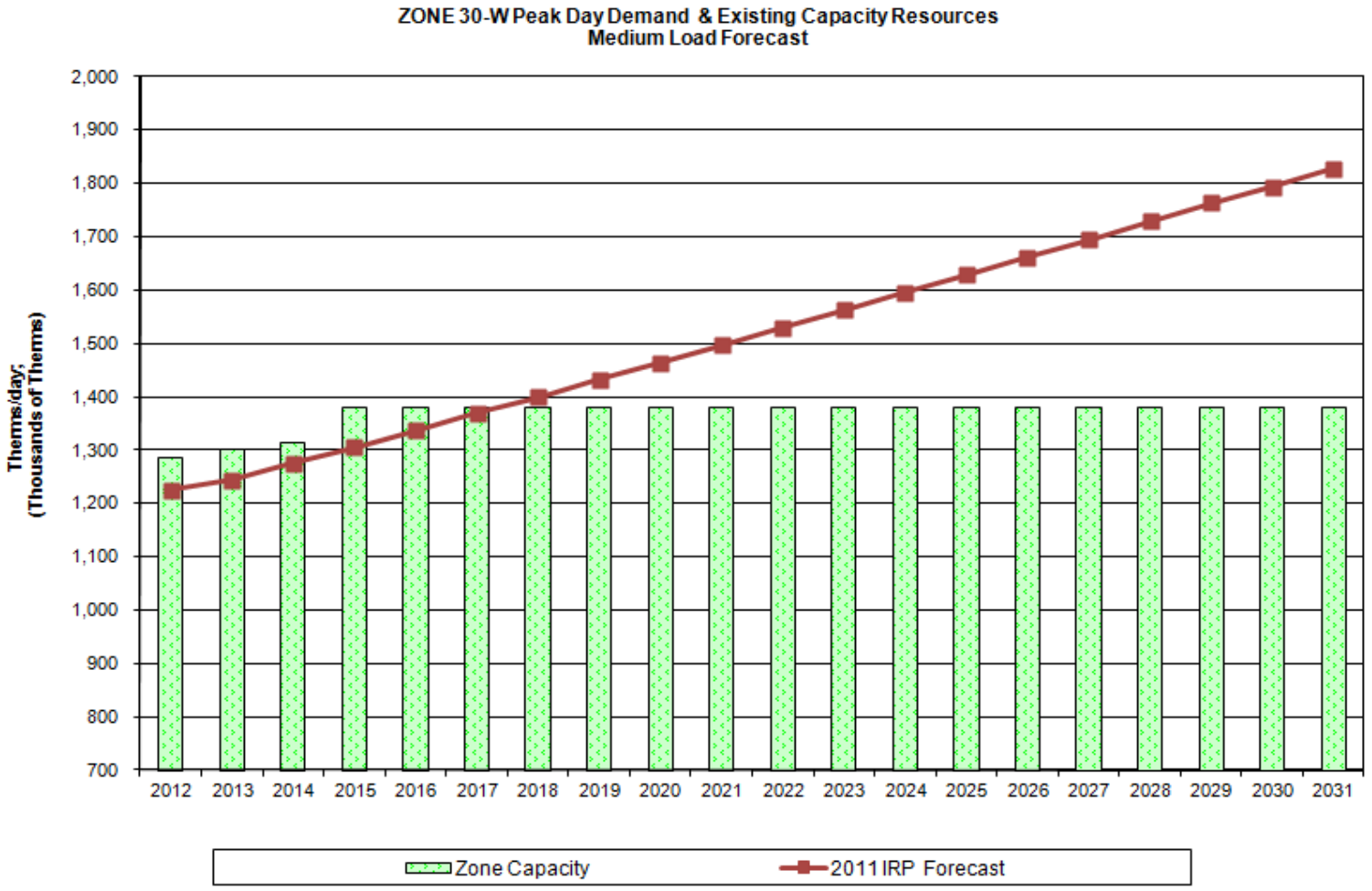
Part of larger strategy

- Secure NWP incremental vintage capacity acquisition to mitigate shortfalls . Work with NWP to re-align our contractual delivery rights (where operationally feasible) from citygates with projected excess capacity to citygates where we forecast shortfalls exist.

Before NWP Acquisitions



After NWP Acquisitions



Note: NWP Capacity is net of Non-Core primary term capacity requirements

SUPPPLY SIDE RESOURCE OPTIONS and UNCERTAINTIES

STORAGE OPTIONS

Short Range Possibilities

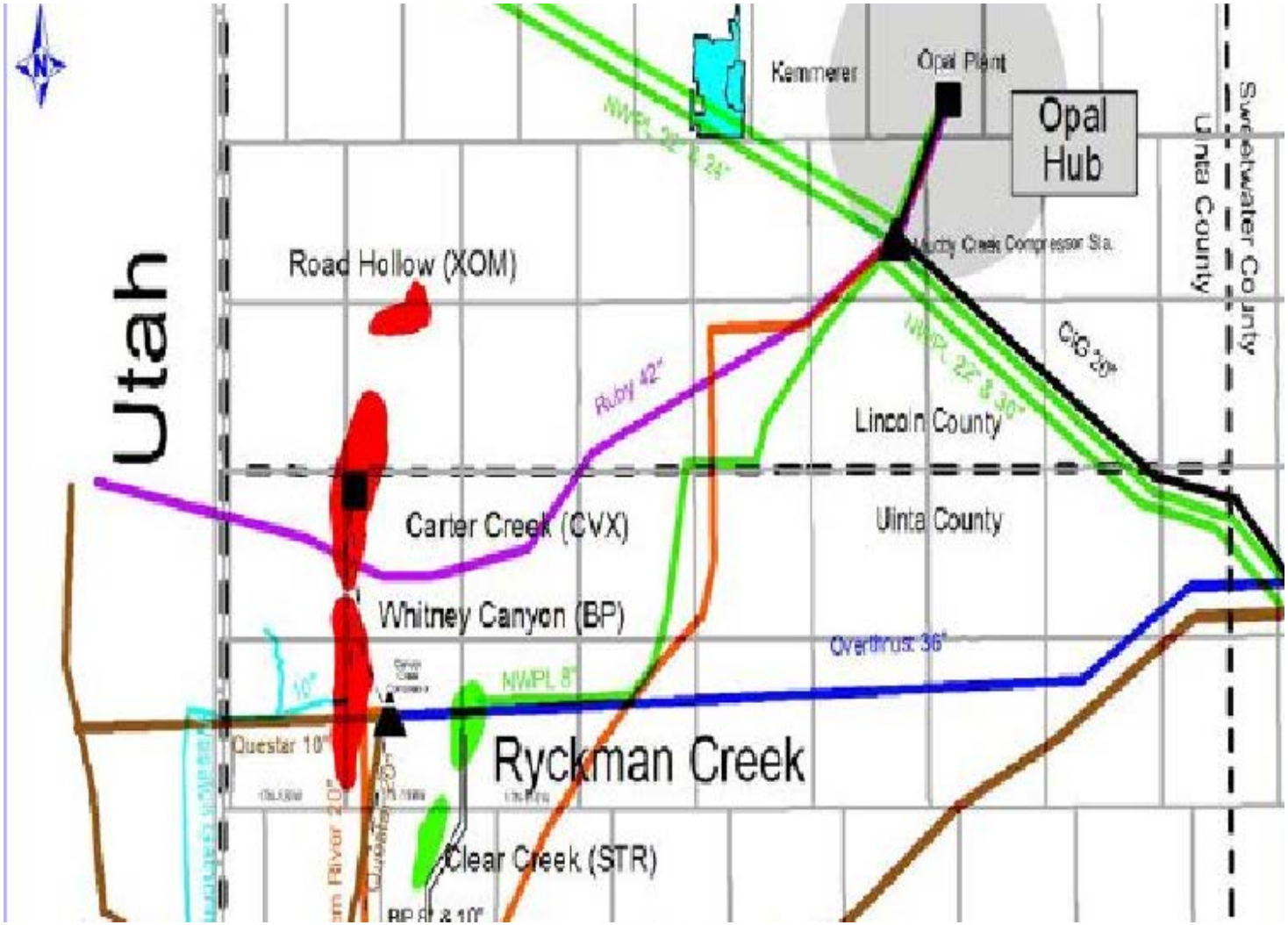
- NWN MIST
- ON-SITE LIQUIFIED NATURAL GAS (SATELLITE LNG)
- TRUCKED-IN LNG
- POST ID2 EXCHANGES ABOVE THE BORDER
- CLAY BASIN
- RYCKMAN CREEK STORAGE

STORAGE OPTIONS

Longer Range Possibilities:

- ACQUISTION OF AECO STORAGE
- PACIFIC NORTHWEST LNG
- CALIFORNIA STORAGE
- JACKSON PRAIRIE EXPANSION
- PARTNERING WITH OTHERS TO BUILD STORAGE FACILITY

Ryckman Creek



PROPOSED LNG TERMINALS AND PIPELINES

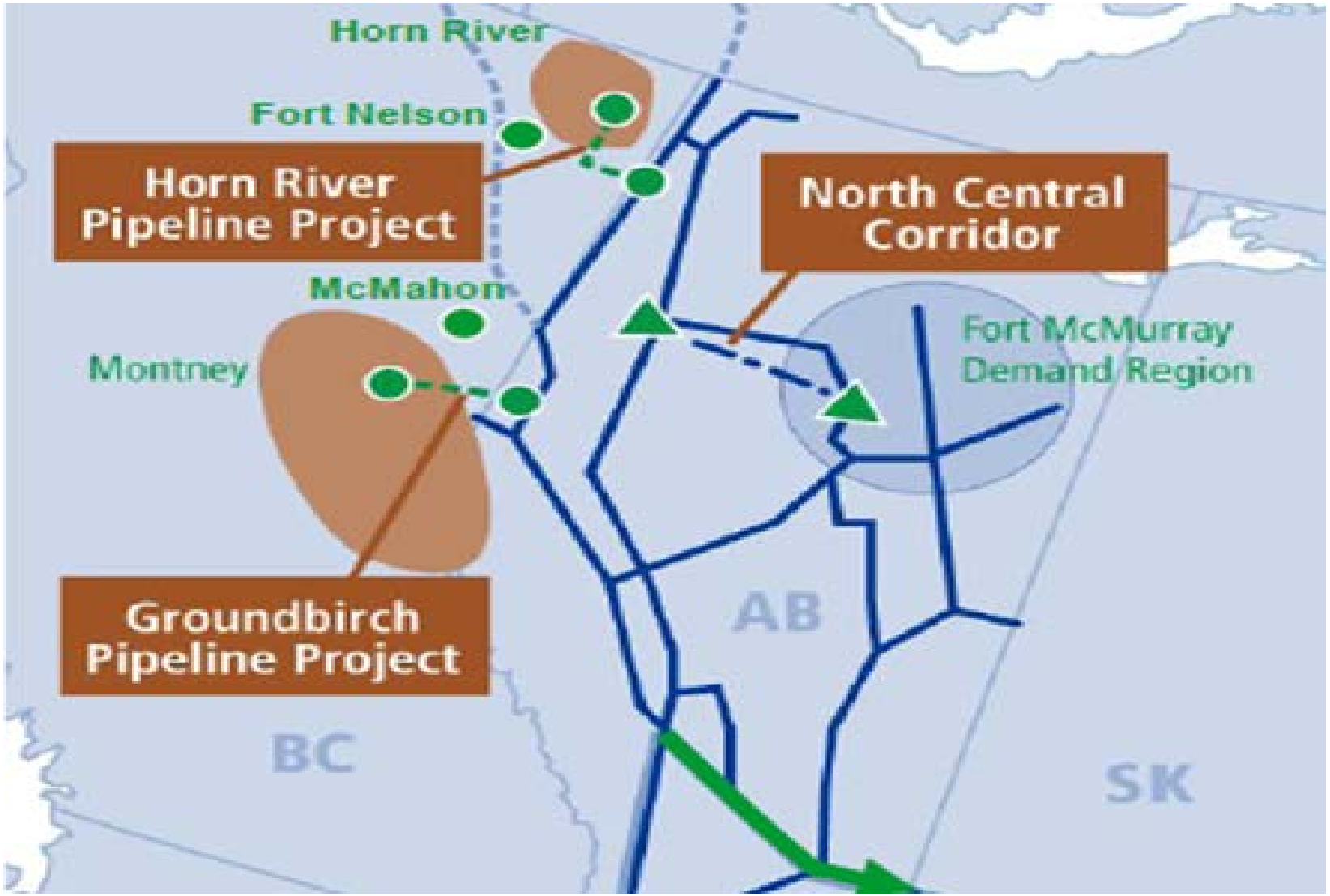
KITIMAT LNG--EXPORT
The 291-mile Pacific Trail Pipeline would connect natural gas from Spectra Energy Transmission's pipeline at Summit Lake, north of Prince George, BC, to the proposed Kitimat LNG export terminal in BC's Bish Cove.

OREGON LNG (Warrenton)—POSSIBLE EXPORT
Initially planned as 117-mile pipeline would connect a terminal in Warrenton, Ore., to the existing NW Natural and Northwest Pipeline systems near Molalla, Ore. In March 2012, filed with FERC, withdrawing plans to import. Rumor is they will seek to export.

JORDAN COVE (Coos Bay) —POSSIBLE EXPORT
Initially planned as 231-mile Pacific Connector Gas Pipeline would extend from the proposed terminal in Coos Bay, Ore., across southwest Oregon to the California border at Malin, Ore., to serve the Pacific Northwest and California markets. *In late February withdrew import plans and re-filed with FERC to become exporter.*

WILL LNG EVER ARRIVE IN THE PACIFIC NORTHWEST?

WHAT IMPACT WILL EXPORT FACILITIES HAVE ON SUPPLY AND PRICE?


Horn River
Fort Nelson
Horn River Pipeline Project
North Central Corridor
McMahon
Montney
Fort McMurray Demand Region
Groundbirch Pipeline Project
AB
BC
SK

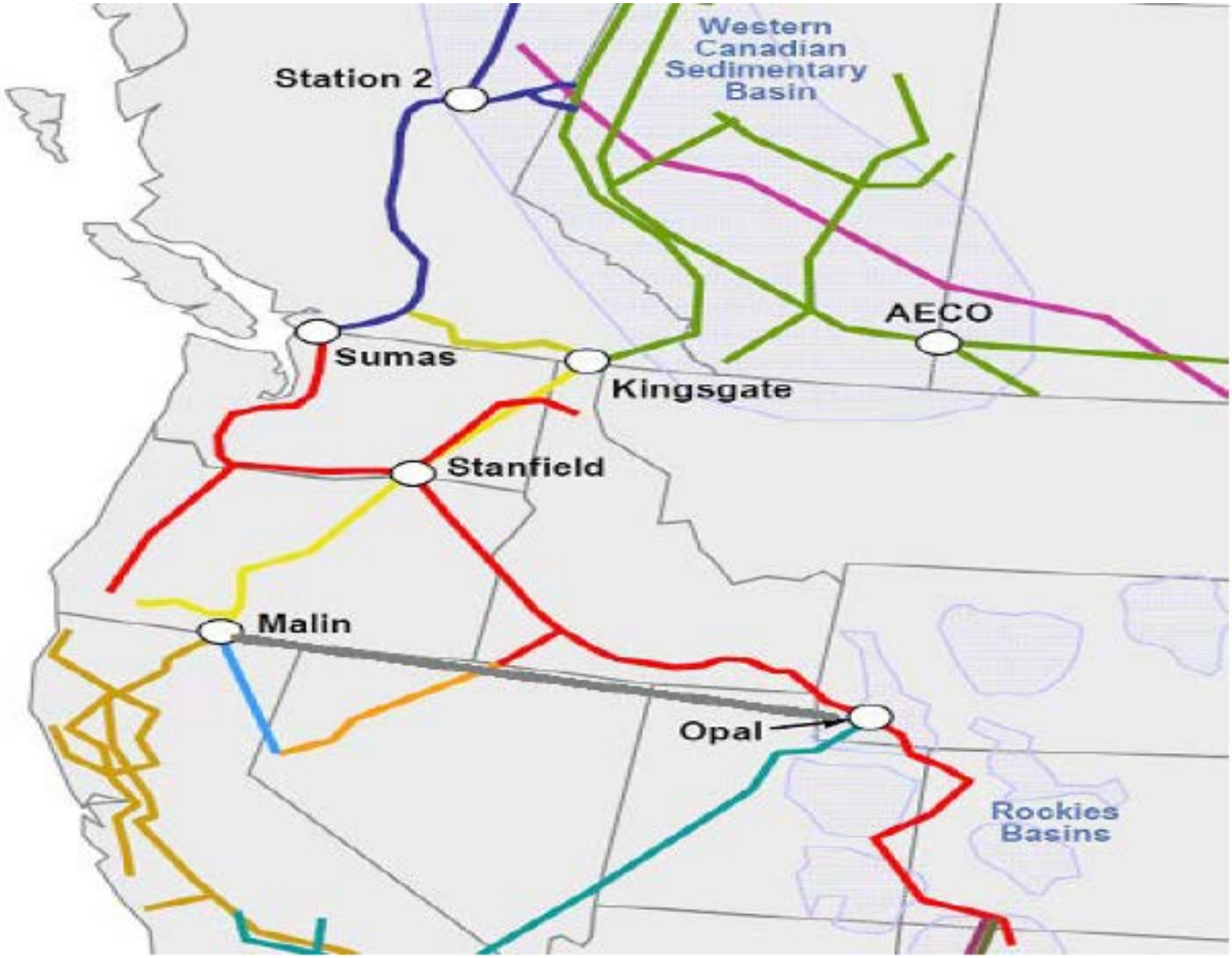
CAPACITY OPTIONS

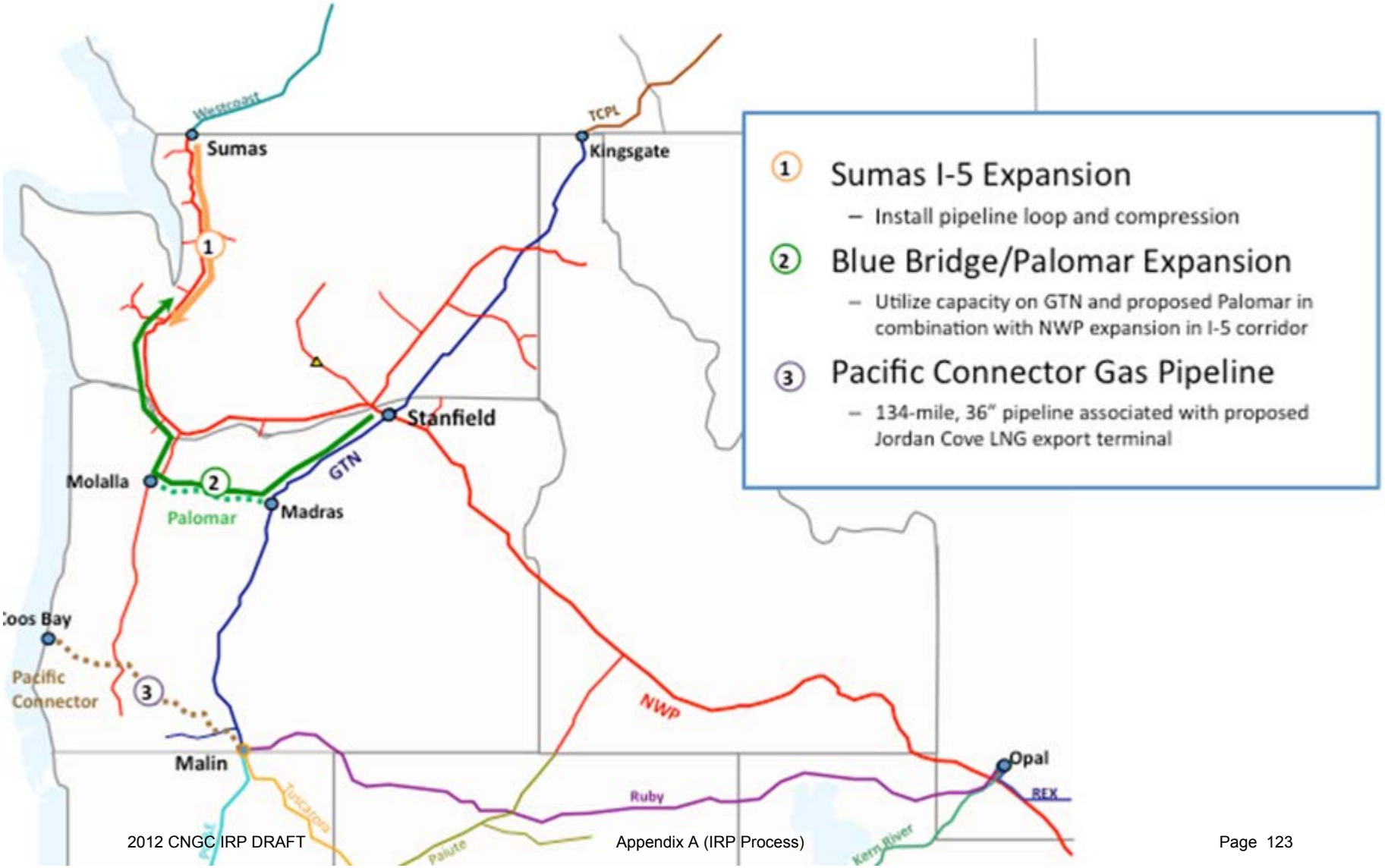
- EXTENSION OF TERM FOR CITYGATE PURCHASES
- CONTINUE TO RECALL X85 CAPACITY, SPECIFICALLY ALONG THE WENATCHEE LATERAL WHICH ENSURES CORE WILL HAVE SUFFICIENT FIRM RIGHTS
  - EVEN AS GROWTH HAS TAPERED OFF THE LATERAL IS CONSTRAINED ON AN OVERALL BASIS, SO WE CONTINUE TO ENGAGE PARTIES
- TCPL-NOVA ADDITIONAL CAPACITY
- NWP RELINQUISHED CAPACITY OR EXPANSION
- PROPOSED PIPELINES

CAPACITY OPTIONS

Long Range Possibilities

- EXPAND CNG SYSTEM TO INTERCONNECT WITH OTHER NEAR-BY PIPELINES
- ACQUIRING CAPACITY ON OTHER ROCKIES PIPELINES (OVERTHRUST, CIG, ETC) TO ACCESS SUPPLIES
- POSSIBLE GTN EXPANSIONS ACROSS WASHINGTON (MOSES LAKE LINE), OREGON, OR BC (TCPL-GTN)
- EXTEND DIRECT CONNECT LINE FROM SPECTRA


Western
Canadian
Sedimentary
Basin
Station 2
AECO
Sumas
Kingsgate
Stanfield
Malin
Opal
Rockies
Basins


Westcoast
Sumas
TCPL
Kingsgate
1
Stanfield
Molalla
2
Palomar
GTN
Madras
Coos Bay
Pacific
Connector
3
Malin
NWP
Opal
Ruby
REX
Tuscarora
Paiute
Kern River
1 Sumas I-5 Expansion
– Install pipeline loop and compression
2 Blue Bridge/Palomar Expansion
– Utilize capacity on GTN and proposed Palomar in combination with NWP expansion in I-5 corridor
3 Pacific Connector Gas Pipeline
– 134-mile, 36" pipeline associated with proposed Jordan Cove LNG export terminal

SOUTHERN CROSSING PIPELINE EXTENSION

- Terasen Gas is developing
- Extend Southern Crossing from Oliver to Kingsvale BC
- 200 MMcf/d, possible expansion to 400 MMcf/d
- Bi-directional; new production from northern BC could flow to east via GTN or move AB gas into I-5 via Westcoast Spectra

- Joint development between TransCanada and Northwest Natural
- Approximately 217 miles of 36-inch diameter pipe
- GTN Mainline near Madras to Columbia River
- Interconnect with proposed Bradwood Landing LNG facility
- Pipeline planned irrespective of LNG facility online
- Bi-directional capacity of up to 1 Bcf/day
- Connects to Mist underground storage
- **While the proposed Palomar and Palomar/Bluebridge projects do not seem to be moving forwards, Northwest Natural still has the option to propose these projects again or a similar cross-Cascade Pipeline in the future.**
- **Northwest Natural has also been instructed by OPUC to prepare or participate in a "regional analysis" of a cross-Cascade pipeline. Cascade has requested and Northwest Natural has agreed to allow Cascade to participate in this analysis.**

- Development by El Paso Natural Gas
- Approximately 675 miles of 42-inch diameter pipe
- From Opal Hub to Malin OR
- Initially 1.5 Bcf/day
- May have possible backhaul into GTN
- Began flowing in 2011
- Consistent amounts are being backhauled to GTN

Term: The term of the proposed Ruby Pipeline capacity is for 25 years, beginning as early as January 1, 2012 but no later than November 1, 2012.

Maximum Daily Quantity (MDQ): November 1st - April 30th of each year: 10,000 dths/day.

Ruby would also provide Cascade with an option for 20,000 Dth per day (in addition to the 10,000 Dth described above) pursuant to the same terms and conditions. The option would expire on October 31, 2014

Receipt Point(s): Any Ruby interconnect at the Opal Hub, including (CIG, Overthrust, Pioneer)

Delivery Point: Ruby – GTN interconnect at Malin, Oregon (Turquoise Flats)

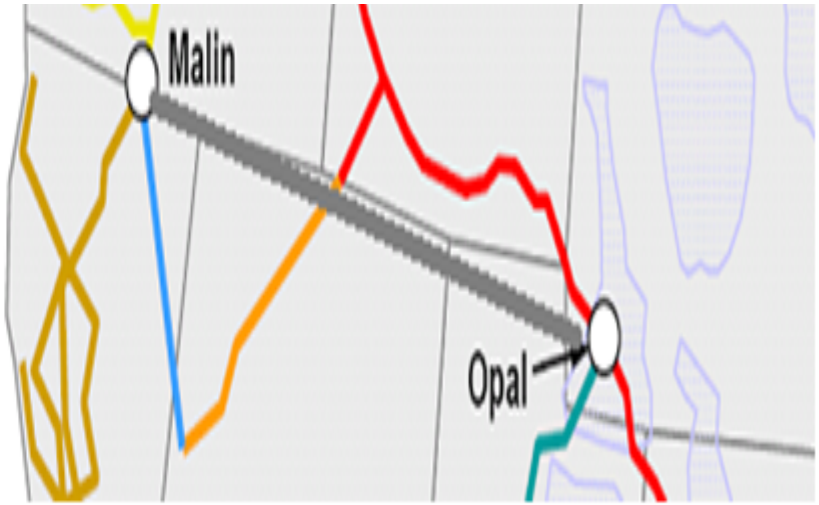
Rate: Fixed reservation rate of $ 0.75 per dth/d for the twenty-five year term, plus Ruby commodity and FERC fuel and variable charges as authorized (estimated at $0.01 and 1.5% respectively). The current recourse rate is $0.95 per dth/d. This proposal represents a 21% discount.

Secure discounted Ruby capacity to meet load growth and add supply diversity

Secure incremental GTN firm backhaul capacity to meet load growth and add supply diversity

Category	Rate, per dth	Days in Year	Annual Cost
Vintage NWP	$ 0.3879	365	$ 141.58
Discounted Annual Ruby	$ 0.7600	365	$ 277.40
Winter Only (Nov-Apr)	$ 0.7600	181	$ 137.56

Explore several options to acquire approximately 300,000 dths of working inventory at Ryckman Creek Storage facility with 2013 start date.



FERC CONDITIONS FOR RUBY/CASCADE CAPACITY

Commission issued an order accepting (subject to conditions) Ruby's Non-Conforming TSA with Cascade. In its order, the Commission noted three areas of concern in the Cascade TSA that would require compliance by Ruby within 30 days.

Seasonal Service – Commission stated that Ruby's Rate Schedule FT and pro forma agreement do not expressly provide shippers with the option to have contracts with seasonal contract demands. To give Cascade alone this option "constitutes a substantial risk of undue discrimination."

> "[t]he Commission will accept the agreement subject to the condition that Ruby, within 30 days of this letter order, either eliminate the provision granting seasonal service, or revise its Rate Schedule FT and *pro forma* service agreement to clarify that this seasonal variation in maximum daily quantity is part of the recourse service available to all shippers taking service under the rate schedule."

FERC CONDITIONS FOR RUBY/CASCADE CAPACITY

Varying MDQ – Commission stated that the option to vary the MDQ of an agreement (outside the stated tariff procedures) is a right that is not currently provided by Ruby's Tariff to all customers. This constitutes a "substantial risk of undue discrimination."

> "[t]he Commission will accept the agreement subject to the condition that Ruby eliminate the provision providing Cascade the option to increase its MDQ from the agreement, within 30 days of this letter order."

Third-Party Capacity/Capacity Release – Commission noted that Ruby would release the acquired capacity to Cascade pursuant to the provisions of GTN's Tariff…"This appears to contravene both Commission policy as well as Ruby's tariff. If Ruby intends to acquire downstream capacity for Cascade on GTN that capacity must be made available to Cascade through Ruby's existing tariff mechanism."

> "Ruby is directed to revise section 17 of the service agreement such that any capacity purchased on GTN may be made available to Cascade

SO WHAT'S NEXT?

RUBY CAPACITY:

- WHILE CASCADE IS IMPACTED, THE ISSUES ARE BETWEEN RUBY AND FERC TO RESOLVE
- RUBY IS LOOKING AT SEVERAL OPTIONS TO ADDRESS FERCs CONCERNS
- RUBY IS LOOKING AT SOLUTIONS THAT PRESERVE THE VALUE OF THE ORIGINAL PROPOSAL
- RUBY EXPECTS TO RESOLVE THE FERC ISSUES THIS SPRING

GTN BACKHAUL

- RUBY AND GTN ARE DISCUSSING OPTIONS FOR ADDRESSING THE BACKHAUL CAPACITY WHICH IS RUBY HAS CONTRACTED FOR BUT WANTS TO RELEASE TO CASCADE


Northwest Gas Association Member Pipelines
Other Pipelines
Natural Gas Supply Basins
Horn River Shale Gas
Cordova Embayment
Liard
Fort Nelson
Montney Tight Gas
Fort St. John
Western Canadian Sedimentary Basin
Calgary
Vancouver
Sumas
Victoria
Seattle
Kingsgate
Spokane
Wenatchee
Bakken
Portland
Bend
Boise
Big Horn
Power River
Wind River
Pocatello
Klamath Falls
Medford
Malin
Overthrust
Green River
Salt Lake City
Uinta
Denver-Julesburg
Piceance

CAPACITY ISSUES

TCPL-GTN

- **–De-contracting continues to be an on-going concern**
- **–Primary vs Secondary backhaul service**

TCPL-NOVA

- **–Mainline rate design will have an impact**
- **–Concerns regarding extraction rights**
- **–Rolling Foothills and NOVA together**

NWP

- **OFOs**

SPECTRA PIPELINE

- **Impacts to Station 2 as a result of TransCanada activities in BC**

OTHER SUPPLY SIDE RESOURCE OPTIONS

- NEGOTIATE ALTERNATE FUEL CONTRACTS WITH NON-CORE CUSTOMERS
- PROPANE AIR PLANTS
- ALASKAN GAS VIA SPECTRA AND/OR TCPL
- BIO-FUELS

Bio-fuels

- **Biofuels meet most of the growth in liquid fuels supply**
- **Biofuels grow, but fall short of the 36 billion gallon renewable fuels standards target in 2022, exceed it in 2035**
- **New light duty vehicle efficiency reaches 40 mpg by 2035**
- **As of today, we have yet to see a viable proposal for our service territory, however we continue to monitor activities in the area**

CARBON AND ENERGY POLICES

CARBON AND ENERGY POLICES

Non-fossil energy use grows rapidly, but fossil fuels still provide the vast majority of total energy use in 2035

Demand increase

Pressure on supplies

To achieve emission goals there is the potential for increased prices via fees and taxes, or as a result of increased gas demand and competition for the resource

PRICING FORECAST

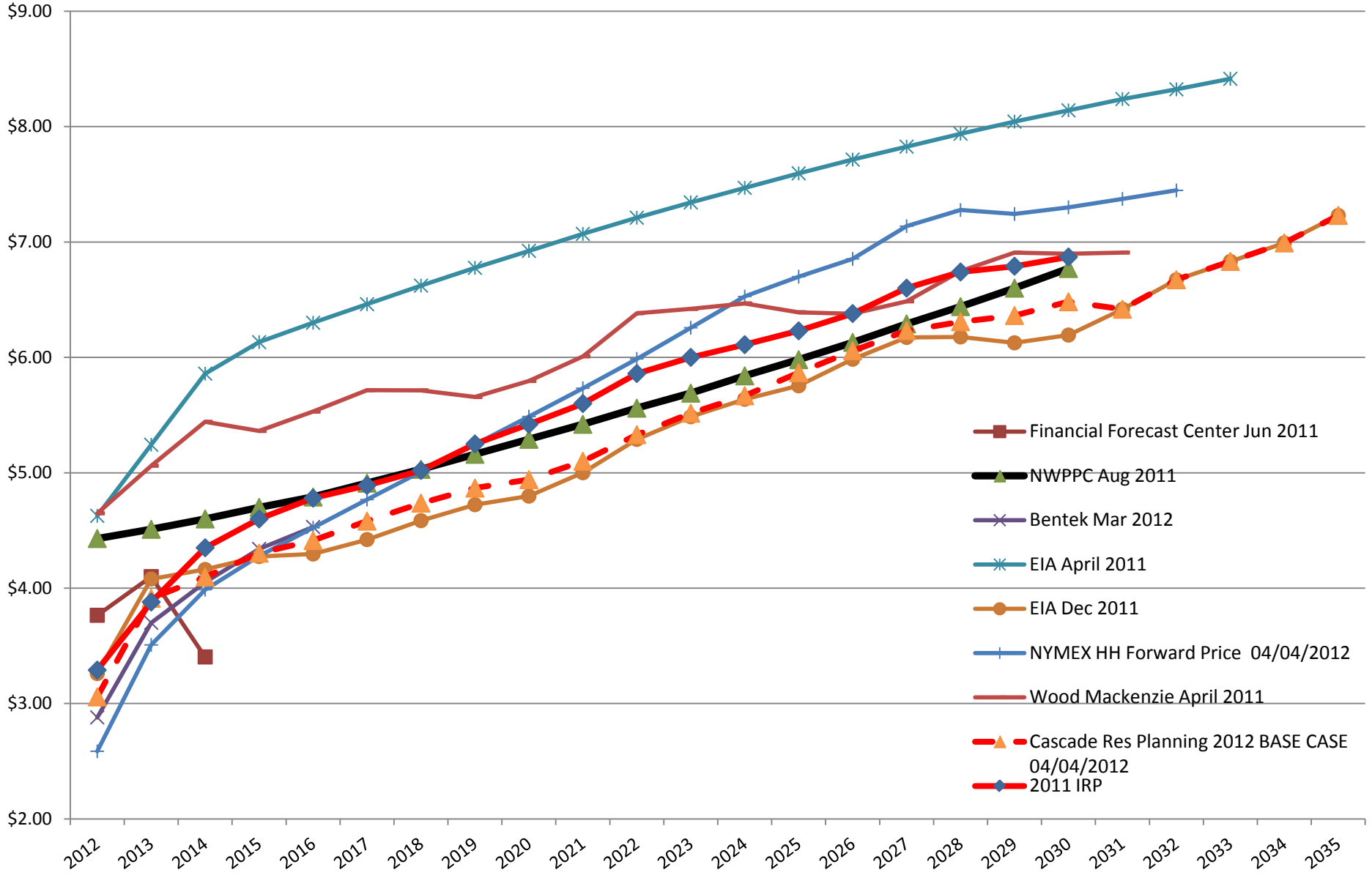
Natural Gas Price Drivers

Price Pressures

Natural Gas

- **Episodes of cold weather** *(upward price pressure)*
  Increased demand for space heating.
- **Coal-to-gas switching in power generation** *(upward price pressure)*
  If natural gas prices are sufficiently competitive to displace more coal as fuel for power generation; in some cases, gas units are moving from peaking service to baseload generation.
- **High levels of natural gas in storage** *(downward price pressure)*
- **Steady production levels of natural gas** *(downward price pressure)*
- **Larger than anticipated imports of LNG** *(downward price pressure)*
  Should European and Asian markets be unable to absorb available global LNG volumes, North America may become a market of last resort for some excess LNG cargoes).

VARIOUS PRICE FORECAST COMPARISONS TO NYMEX HENRY HUB FORWARD PRICE AS OF APRIL 4, 2012



ANNUAL PRICE FORECASTS FROM VAIROUS SOURCES

Year	Financial Forecast Center Jun 2011	NWPPC Aug 2011	Bentek Mar 2012	EIA April 2011	EIA Dec 2011	NYMEX HH Forward Price 04/04/2012	Wood Mackenzie April 2011
2012	$ 3.76500	$ 4.43000	$ 2.88000	$ 4.62700	$ 3.26000	$ 2.58658	$ 4.64884
2013	$ 4.10000	$ 4.51000	$ 3.70000	$ 5.24300	$ 4.08000	$ 3.50825	$ 5.06107
2014	$ 3.40400	$ 4.60000	$ 4.05000	$ 5.85900	$ 4.16217	$ 3.98675	$ 5.44174
2015	$ -	$ 4.70000	$ 4.34000	$ 6.13200	$ 4.27423	$ 4.27783	$ 5.36250
2016	$ -	$ 4.79000	$ 4.53000	$ 6.30000	$ 4.29597	$ 4.52375	$ 5.53032
2017	$ -	$ 4.91000	$ -	$ 6.46100	$ 4.42120	$ 4.76750	$ 5.71501
2018	$ -	$ 5.03000	$ -	$ 6.62200	$ 4.58531	$ 5.00883	$ 5.71468
2019	$ -	$ 5.16000	$ -	$ 6.77600	$ 4.72350	$ 5.24550	$ 5.65692
2020	$ -	$ 5.29000	$ -	$ 6.92300	$ 4.79764	$ 5.48708	$ 5.79573
2021	$ -	$ 5.42000	$ -	$ 7.07000	$ 5.00023	$ 5.73258	$ 6.00909
2022	$ -	$ 5.56000	$ -	$ 7.21000	$ 5.28943	$ 5.98700	$ 6.38303
2023	$ -	$ 5.69000	$ -	$ 7.34300	$ 5.48562	$ 6.25700	$ 6.41992
2024	$ -	$ 5.84000	$ -	$ 7.46900	$ 5.63729	$ 6.52725	$ 6.46775
2025	$ -	$ 5.98000	$ -	$ 7.59500	$ 5.75365	$ 6.69918	$ 6.39105
2026	$ -	$ 6.13000	$ -	$ 7.71400	$ 5.98401	$ 6.85371	$ 6.37775
2027	$ -	$ 6.29000	$ -	$ 7.82600	$ 6.17296	$ 7.13717	$ 6.48569
2028	$ -	$ 6.44000	$ -	$ 7.93800	$ 6.17714	$ 7.27694	$ 6.74716
2029	$ -	$ 6.60000	$ -	$ 8.04300	$ 6.12600	$ 7.24272	$ 6.90829
2030	$ -	$ 6.77000	$ -	$ 8.14100	$ 6.19344	$ 7.30042	$ 6.89817
2031	$ -	$ -	$ -	$ 8.23900	$ 6.41738	$ 7.37343	$ 6.90856
2032	$ -	$ -	$ -	$ 8.32300	$ 6.67280	$ 7.44716	
2033	$ -	$ -	$ -	$ 8.41400	$ 6.83142	$ -	
2034	$ -	$ -	$ -	$ -	$ 6.99198	$ -	
2035	$ -	$ -	$ -	$ -	$ 7.22996	$ -	

ALLOCATION PERCENTAGES ASSIGNED TO THE FORECAST SOURCES

Year	Financial Forecast Center Jun 2011	NWPPC Aug 2011	Bentek Mar 2012	EIA April 2011	EIA Dec 2011	NYMEX HH Forward Price 04/04/2012	Wood Mackenzie April 2011	Cascade Res Planning 2012 BASE CASE
2012	1.00%	5.00%	10.00%	5.00%	35.00%	44.00%	0.00%	$ 3.05760
2013	1.00%	5.00%	10.00%	0.00%	40.00%	44.00%	0.00%	$ 3.91213
2014	1.00%	5.00%	10.00%	0.00%	45.00%	39.00%	0.00%	$ 4.09685
2015	0.00%	5.00%	10.00%	0.00%	50.00%	35.00%	0.00%	$ 4.30336
2016	0.00%	5.00%	10.00%	0.00%	55.00%	30.00%	0.00%	$ 4.41241
2017	0.00%	15.00%	0.00%	0.00%	60.00%	25.00%	0.00%	$ 4.58109
2018	0.00%	15.00%	0.00%	0.00%	65.00%	20.00%	0.00%	$ 4.73672
2019	0.00%	15.00%	0.00%	0.00%	70.00%	15.00%	0.00%	$ 4.86727
2020	0.00%	15.00%	0.00%	0.00%	75.00%	10.00%	0.00%	$ 4.94044
2021	0.00%	15.00%	0.00%	0.00%	80.00%	5.00%	0.00%	$ 5.09981
2022	0.00%	15.00%	0.00%	0.00%	85.00%	0.00%	0.00%	$ 5.33002
2023	0.00%	15.00%	0.00%	0.00%	85.00%	0.00%	0.00%	$ 5.51627
2024	0.00%	15.00%	0.00%	0.00%	85.00%	0.00%	0.00%	$ 5.66769
2025	0.00%	50.00%	0.00%	0.00%	50.00%	0.00%	0.00%	$ 5.86682
2026	0.00%	50.00%	0.00%	0.00%	50.00%	0.00%	0.00%	$ 6.05701
2027	0.00%	50.00%	0.00%	0.00%	50.00%	0.00%	0.00%	$ 6.23148
2028	0.00%	50.00%	0.00%	0.00%	50.00%	0.00%	0.00%	$ 6.30857
2029	0.00%	50.00%	0.00%	0.00%	50.00%	0.00%	0.00%	$ 6.36300
2030	0.00%	50.00%	0.00%	0.00%	50.00%	0.00%	0.00%	$ 6.48172
2031	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	$ 6.41738
2032	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	$ 6.67280
2033	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	$ 6.83142
2034	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	$ 6.99198
2035	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	$ 7.22996

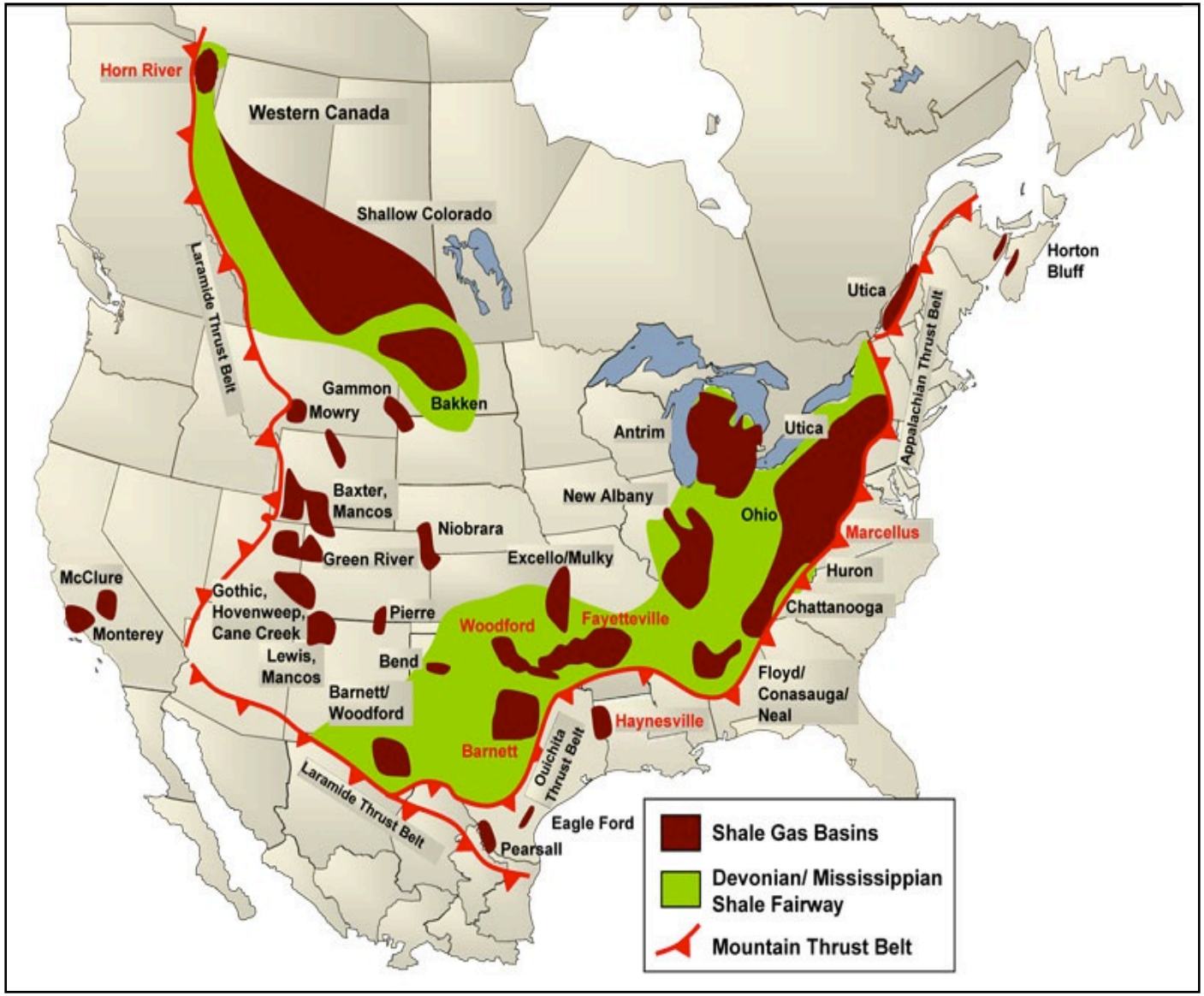
Year	Res Planning 2012 LO BASE CASE	Res Planning 2012 BASE CASE	Res Planning 2012 HI BASE CASE
2012	$ 2.87	$ 3.06	$ 3.21
2013	$ 3.68	$ 3.91	$ 4.11
2014	$ 3.85	$ 4.10	$ 4.30
2015	$ 4.05	$ 4.30	$ 4.52
2016	$ 4.15	$ 4.41	$ 4.63
2017	$ 4.31	$ 4.58	$ 4.81
2018	$ 4.45	$ 4.74	$ 4.97
2019	$ 4.58	$ 4.87	$ 5.11
2020	$ 4.64	$ 4.94	$ 5.19
2021	$ 4.79	$ 5.10	$ 5.35
2022	$ 5.01	$ 5.33	$ 5.60
2023	$ 5.19	$ 5.52	$ 5.79
2024	$ 5.33	$ 5.67	$ 5.95
2025	$ 5.51	$ 5.87	$ 6.16
2026	$ 5.69	$ 6.06	$ 6.36
2027	$ 5.86	$ 6.23	$ 6.54
2028	$ 5.93	$ 6.31	$ 6.62
2029	$ 5.98	$ 6.36	$ 6.68
2030	$ 6.09	$ 6.48	$ 6.81
2031	$ 6.03	$ 6.42	$ 6.74
2032	$ 6.27	$ 6.67	$ 7.01
2033	$ 6.42	$ 6.83	$ 7.17
2034	$ 6.57	$ 6.99	$ 7.34
2035	$ 6.80	$ 7.23	$ 7.59

EIA ECONOMIC GROWTH FACTORS (EIA ANNUAL ENERGY OUTLOO

Case name	Description
Reference	Baseline economic growth (2.7 percent per year from 2009 through 2035), world oil price, and technology assumptions. Complete projection tables in Appendix A. World light, sweet crude oil prices rise to about $125 per barrel (2009 dollars) in 2035. Assumes RFS target to be met as soon as possible.
Low Economic Growth	Real GDP grows at an average annual rate of 2.1 percent from 2009 to 2035. Other energy market assumptions are the same as in the Reference case. Partial projection tables in Appendix B.
High Economic Growth	Real GDP grows at an average annual rate of 3.2 percent from 2009 to 2035. Other energy market assumptions are the same as in the Reference case. Partial projection tables in Appendix B.

FACTORS USED IN PRICE FORECAST

Low Case	2.1	-0.0600
Reference Case	2.7	
High Case	3.2	0.0500



Shale plays are producing more than 20 percent of U.S. natural gas supply, and are expected to make up nearly 50 percent by 2035.

During 2011 alone, U.S. natural gas production grew more than 7 percent, the largest year-over-year volume increase in history U.S.

EIA 2012 Annual Energy Outlook – Early Release, January 23, 2012.

- **Ensure All Core Customers' Natural Gas Needs are Met -**
  - **–Through Disciplined Market Analysis and Supply Contracting**
- **Effectively Manage Wholesale and Retail Gas Prices –**
  - **–Through Cost-Effective Spot Purchases When Available**
  - **–Participating in pipeline regulatory proceedings to Ensure Lowest Pipeline Rates**
- **Mitigate Price Volatility for Customers -**
  - **–Through Multi-Year Hedging and a Diversified Portfolio, including both index and fixed price physical products**
- **Minimize Corporate Risk -**
  - **–Through the Use of Financial Derivatives**
- **Optimize Pipeline Capacity, Storage, and Other Core Resources -**
  - **–Through Available Release Mechanisms**

PROBABLE SCENARIOS

Reference case	Existing supply contracts, incremental supplies (peaking, annual, seasonal and citygate) from various receipt points (AECO, Rockies, Sumas, Station 2, as well as behind the citygate. Incremental supplies also include satellite LNG (behind citygate), imported LNG, current upstream pipeline transport capacity, as well as proposed pipelines and extensions (Cross-Cascades (Palomar/Blue Bridge), Southern Crossing, etc.). We also include Cascade's current Jackson Prairie storage accounts and our Plymouth LNG account. We anticipate this will also include Ruby and Backhaul GTN
All Resources	Existing supply contracts, incremental supplies (peaking, annual, seasonal and citygate) from various receipt points (AECO, Rockies, Sumas, Station 2, as well as behind the citygate (satellite LNG). Incremental supplies also include satellite LNG (behind citygate), Ruby, GTN Backhaul, current upstream pipeline transport capacity, as well as proposed pipelines and extensions (Cross-Cascades (Palomar/Blue Bridge), Southern Crossing, etc). We also include Cascade's current Jackson Prairie storage accounts, our Plymouth LNG account, as well as the potential to obtain AECO, Ryckman Creek and Mist storage.
Basecase Limited Canadian Imports due to LNG exports in Canada	Model contains all the elements of the Basecase, but incremental Annual AECO and seasonal Sumas resources are unavailable to the model. Additionally, annual Sumas max is lowered from 100,000 to 50,000 dths. The intent to is to restrict the amount of Canadian imports by at least 20%

PROBABLE SCENARIOS

Basecase No Basin price advantage	Model contains all the elements of the Basecase; however, all potential incremental resources were priced at NYMEX with no basis adder. In other words, incremental AECO, Sumas and Rockies all have the same price. Incremental resources at Station 2 were not available to the model. Transportation rates were not modified from their basecase levels.
Basecase AECO Storage	Model contains all the elements of the Basecase; however, Ryckman Creek storage is added as a resource. The inventory is set at 300,000 dths, with daily withdrawal rights of 10,000 dths a day.

IN ADDITION, WE WILL CREATE OTHER SCENARIOS

- The proposed pipelines at various discount pricing
- MIST storage
- Run each proposed pipeline separately
- Run various backhaul scenario
- Run pipeline stacking
- Work with NWP to determine a price for eliminating the Kemmerer constraint
- Look at a 20 year supply
- Create a short-term supply curtailment event for limited discussion

Other thoughts, questions, concerns…

- **Are there other ideas or concerns that you feel need to be addressed?**
- **Are there other alternatives we should consider?**

2012 Integrated Resource Plan

Technical Advisory Group Meeting

April 11, 2012

2012 Integrated Resource Plan

Technical Advisory Group Meeting

May 16, 2012

Agenda

- Introductions
- Distribution System Modeling
- Conservation and DSM
- SENDOUT scenarios and inputs
- Closing Discussion
  - Future meeting dates/Other Comments

Distribution System Planning to Support IRP Growth

Cascade Natural Gas – Engineering Services

5/15/12

Distribution System Modeling

- CNG maintains three types of models for each distribution system:
  - Calibrated Model: Each model is calibrated to a recent peak hour, usually within the past year.
  - Design Day Model: Loads are increased from the Calibrated Model to simulate a 20-year cold weather event. All non-core reservations are included.
  - Forecast Models: Loads are further increased from the Design Day Model to simulate core growth.

Design Day Model Functions

- Evaluate system for capability to support new customers
- Analyze the affect of changes to system operations
- Plan necessary reinforcements to support system on peak winter days
- Design Day models can be modified to estimate conditions during non-peak days.

Forecast Modeling for the IRP

- Loads in Design Day models are increased per core growth in the IRP forecast.
- Model is examined for areas of low pressure as a result of inadequate capacity.
- Footage and diameter of pipe needed to correct low pressure areas are estimated.
- Average total cost of pipe installation (by diameter) is used to predict total cost of reinforcements.

System Model Examples

- Kennewick Distribution System Model (Demonstration)

Reinforcement Planning

- Is the existing system being operated efficiently?
- Is there a bottleneck in the existing pipe network?
- Are the capacity issues localized or widespread throughout the system?
- Engineering judgement and experience with distribution system design plays a large role.

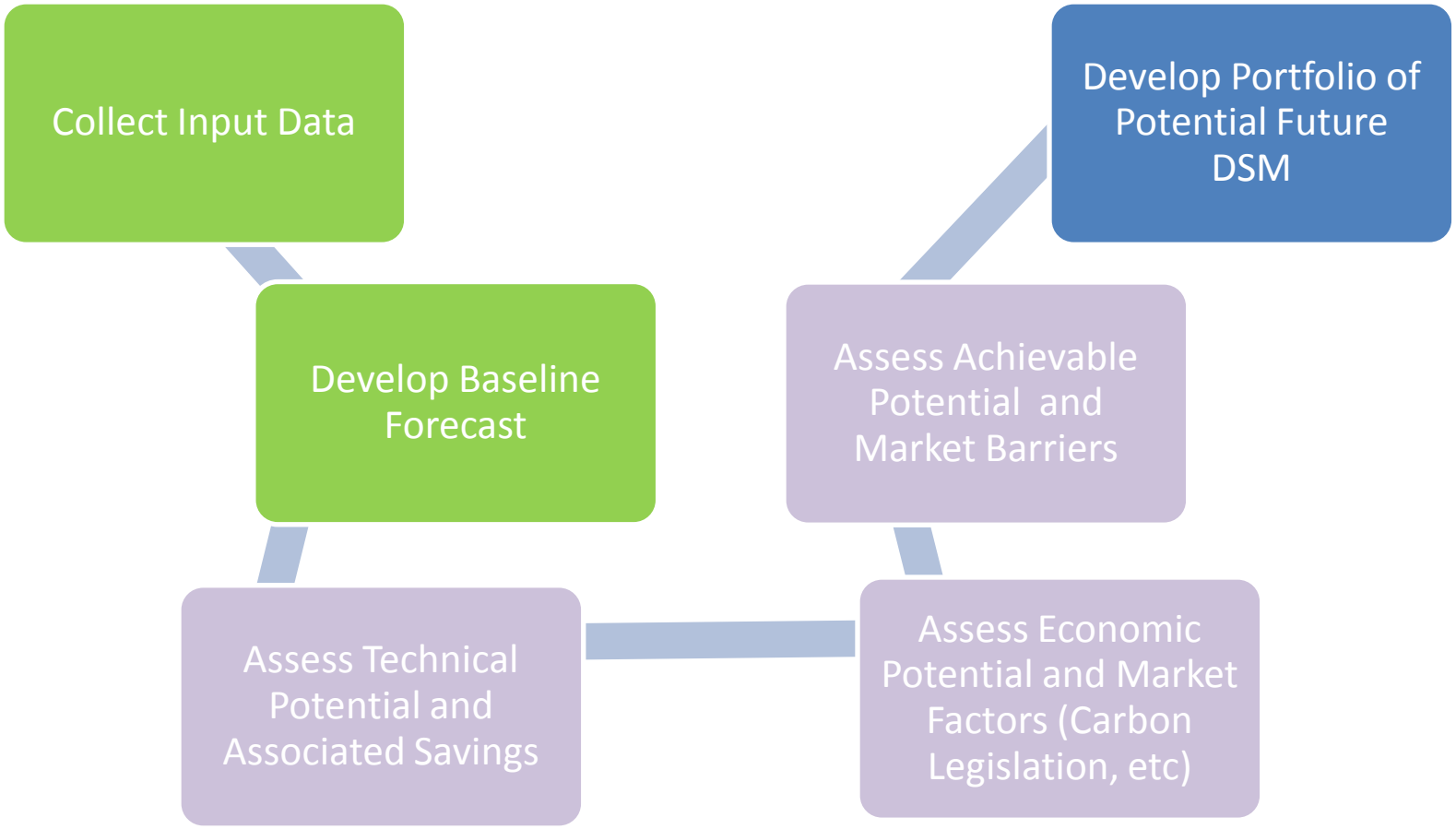
QUESTIONS?

Conservation and DSM

Allison Spector
Manager, Conservation

DSM Objective

Demand Side Management- Analysis Process



Baseline Development and Analysis of Potential

- **Technical Potential**
  - Quantified the current energy used by sector and customer type
  - Estimated energy consumption by end use for each customer type
  - Applied the forecasted growth rate to estimate the customer base available in future years
  - Reviewed information on specific measure for applicability to Cascade's customers

- **Deemed energy savings and associated costs**
  - Identified deemed savings by climate zone
  - Provided technical and potential supply curve savings for out to 2030

Technical Potential Update

- Began with 2010 IRP Assessment
- Updated based on:
  - Customer growth forecast (main changes made in 2010 to reflect slowed growth in new housing sector).
  - Continued reductions to the projected cost of natural gas. Technical potential cost-effectiveness set not-to-exceed $.65
  - Potential removed in 2010 for combined EE Furnace and PTCS duct sealing has now been restored.

Technical Potential Update (cont)

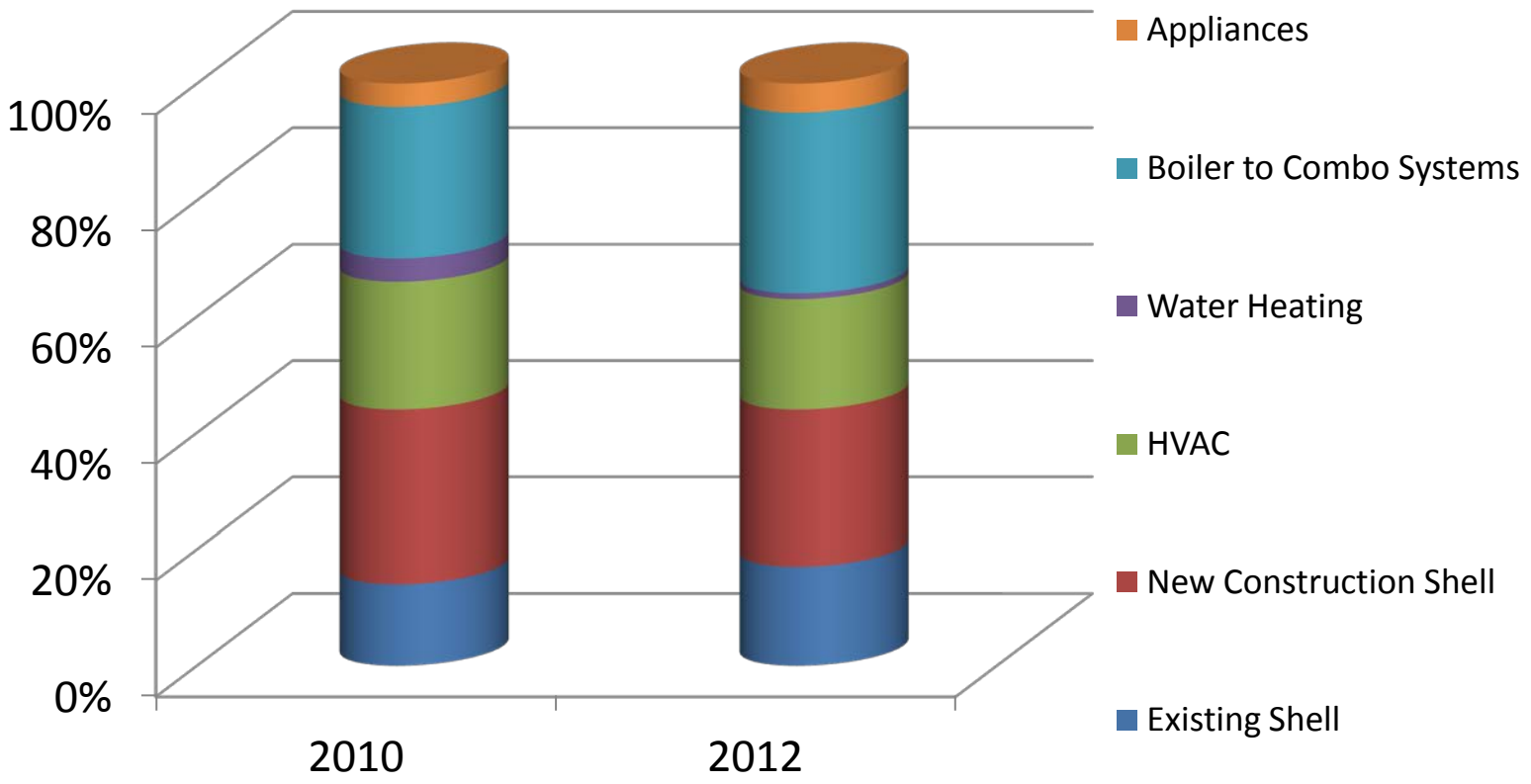
- Screen Based on Estimated Avoided Costs
- Impacts
  - Long-Term Gas Price Forecast
    - Currently estimated same or down from 2010 IRP
  - Uncertainties
    - Code Changes (removes from utility's portfolio)
    - Carbon Costs

WA Residential Technical Potential – Draft Result

2032 Technical Potential

	2010 (screened at $.85)	**2012 (screened at $.65)**
Existing Shell	3,585,461	3,585,461
New Construction Shell	7,920,357	5,776,721
HVAC	5,753,797	4,183,200
Water Heating (New/Existing)	1,135,937	155,904
Boiler to Combo System	6,777,258	6,777,258
Appliances	1,065,143	1,060,550
	26,237,953	**21,539,094**

Residential Technical Potential –Thru 2032 (WA Only)



LET's Talk Carbon!

- Carbon Legislation is likely to have the biggest impact on Avoided Costs
- Cap & Trade or Carbon Tax, essentially the same for an LDC
  - LDC's deliver Gas and every molecule has an Emission that would result in a cost (tax)
  - Allowances under a Cap & Trade just lower the amount of the credits that would need to be purchased
  - LDC's do not have "carbon-free" alternatives for their portfolio (no wind/solar)
  - However, not much movement in this area and no likely movement expected pending 2012 elections

2012 Washington State Energy Strategy

- **In December 2011 the Department of Commerce released its most recent energy strategy**
  - Provides a long-term plan and outlines subsequent action items.
  - Plan to be released on a regular basis every four years
  - The ultimate objective is to reduce WA's energy consumption (especially through fossil fuels) and increase efficiency leading to a reduction in greenhouse gas emissions.

- **Plan calls for:**
  - A more efficient and coordinated system of transportation
  - A broader approach to energy efficiency in buildings
  - A more diverse supply portfolio through distributed energy

- **As part of the second goal for increased energy efficiency, the strategy seeks to:**
  - Make it easier for property owners to identify the most effective energy improvements
  - Enable financing of improvements using the energy costs savings from the improvement
  - Build consumer confidence in the quality and value of energy efficiency projects
  - Possible carbon legislation?

- **Cascade will continue to closely monitor these strategies to assess their potential long-term implications for our service territory.**

Pricing and Carbon Uncertainty Means… Screening is KEY!

- Estimated Avoided Costs used to screen for packages
- Initially Screened for Measures @ levelized costs of $.65 or Less
- Additional Bundles of "Potential"
  - Screened @ $.75/therm
  - Screened @ $.85/therm
  - Screened @ $1.00/therm
  - Screened @ $1.50/therm
  - Screened @ $2.00/therm and greater

WA Conservation Bundles
(Residential)

	Screened at Levelized cost/therm						
	$0.65	$0.70	$.75	$0.85	$1.00	$1.50	>$ 2.00
Existing Shell	3,585,461	3,585,461	3,585,461	3,585,461	3,585,461	3,585,461	3,585,461
New Construction Shell	5,776,721	5,776,721	5,776,721	7,920,357	9,365,736	9,365,736	9,365,736
HVAC	4,183,200	6,452,534	6,482,246	7,753,797	9,698,678	9,892,797	10,249,568
Water Heating (New/Existing)	155,904	155,904	155,904	1,135,937	1,135,937	1,878,664	1,878,664
Boiler to Combo System	6,777,258	6,777,258	6,777,258	6,777,258	6,777,258	6,777,258	6,777,258
Appliances	1,060,550	1,065,143	1,065,143	1,065,143	1,065,143	1,065,143	1,065,143
	21,539,094	23,813,021	23,842,733	28,237,953	31,628,213	32,565,059	32,921,830

Technical to Achievable

- Technical Potential: The estimate of all energy savings that could be accomplished without the influence of any market barriers such as costs and customer awareness

- Achievable Potential: “a realistic assessment of what can be expected taking into account not all consumers can be persuaded

- Changes to Code move measures from “technical” to “achievable” regardless of cost

Adjustments to Achievable for 2012

- Ratios of technical-to-achievable remain identical from the 2010 planning period.
  - 61% of technical for commercial sector
  - 58% of technical for residential sector

- 2012 the first year that CNGC will factor in prior years' conservation achievements.
  - Approximately 900k therms have been conserved in the residential sector from 2008-2011.
  - Approximately 1.1m therms have been conserved in the commercial sector from 2008-2011.
  - What has already been achieved, cannot be re-achieved.

Adjustments to Achievable for 2012 (Continued)

- Targets in Residential Sector follow identical ramping formula to prior planning periods
- Targets in Commercial Sector have been stabilized to reflect a more mature program
- Commercial targets remain higher than the residential target during most program years, which is a more realistic assessment of our conservation potential.
- The Company will continue to seek new opportunities for cost-effective therm savings and will adjust as appropriate if emerging technologies or increased gas prices warrant target expansion.

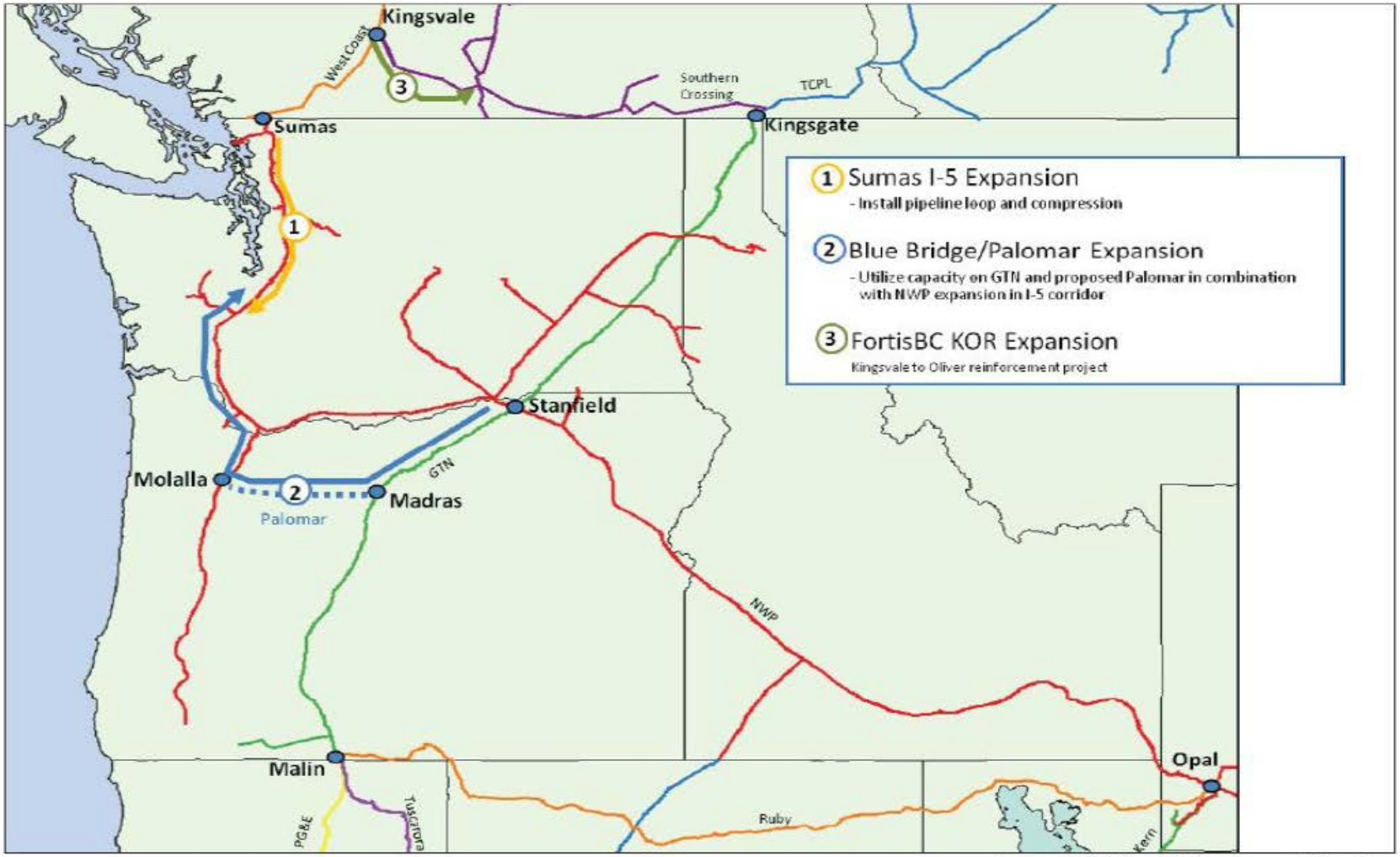
Questions?

SENDOUT Scenarios and Inputs

Resource Planning

5/15/12

Source: Northwest Gas Association - Numbers indicate delivery or takeaway capacities in MDth.



Source: Williams Northwest Pipeline

Scenario Name	Key Elements in SENDOUT Scenarios
All in Case	Medium Load Growth, Medium Gas Price Forecast, Average weather with Peak Event. Includes existing supply contracts, incremental supplies (peaking, annual, seasonal and citygate) from various receipt points (AECO, Rockies, Sumas, Station 2, Malin, as well as behind the citygate (satellite LNG)). Incremental supplies also include bio-natural gas, satellite LNG (behind citygate), current upstream pipeline transport capacity, as well as proposed pipelines and extensions (Pacific Connector, Southern Crossing, and Palomar-Cross Cascade). We also included Cascade's current Jackson Prairie storage accounts, our Plymouth LNG account, as well as the potential to obtain a third party's Jackson Prairie account, as well as Ryckman Creek and Mist storage. Almost any alternative that can be reasonably considered is included.
Limited Canadian Imports	Model contains all the elements of the basecase, but incremental Annual AECO and seasonal Sumas resources will be limited to the model. Annual Sumas max is lowered from 100,000 to 50,000 dths. The intent is to mimic possible Canadian LNG exports to Asia. We will also make additional volumes available but at significantly higher price, representing completion for the supply.
No Rockies price advantage	Model contains all the elements of the Basecase; however, all potential incremental resources are priced at NYMEX flat with no basis adder. In other words, incremental AECO, Sumas and Rockies all have the same price. This scenario allowed testing of inputs as transport costs were the variable. This is a "sanity check" of the transport inputs.
Incremental Ruby Pipeline	Model contains all the elements of the Basecase; however, incremental Ruby Pipeline is added as an additional resource. For modeling purposes we assume the $0.95 rate (the max rate identified in their tariff). The model is set up so that Ruby becomes an option to move Rockies gas to GTN, where it would require incremental GTN capacity (backhaul) to move to Cascade's citygates, likely in Central Oregon, although it is possible to move the gas to Stanfield for transport on NWP.
Incremental TransCanada	Model contains all the elements of the Basecase; however, incremental NOVA, Foothills and GTN forward haul are added as additional resources. For modeling purposes we assume the $1.20 rate The model is set up so that the TransCanada pathing becomes an option to move AECO gas to Cascade's citygates, likely in Central Oregon, although it is possible to move the gas to Stanfield for transport on NWP.

Scenario Name	Key Elements in SENDOUT Scenarios
Incremental NWP	Model contains all the elements of the Basecase; however, incremental Northwest Pipeline is added as an additional resource. For modeling purposes we assume the $1.20 rate (or a other rate based on general discussions with NWP). The model is set up so that NWP becomes an option to move Rockies and Sumas gas to GTN citygates.
Pacific Connector	Model contains all the elements of the Basecase; however, Pacific Connector is added as an additional resource. For modeling purposes we started with Pacific Connector transport priced at approximately 3 times the current NWP rate. The model is set up so that Pacific Connector becomes an option to move pick up Rockies supplies in route the a potential export facility which would require incremental GTN capacity (backhaul) to move to Cascade's citygates.
Kemmerer Solution	Model contains all the elements of the Basecase; Cascade assumes the full cost of a 40 year amortized solution to fix the 75000 dths of displacement currently required by NWP. Pricing is yet to be determined; subject to information provided by NWP to a general request.
Modified Palomar or a Cross Cascade Pipeline	Model contains all the elements of the Basecase, utilize transportation by others (TBO) between NWP and Palomar to reach "Blue Bridge" or continue on to Central Oregon down GTN.
Southern Crossing	Model contains all the elements of the Basecase; however, we give the model the option to move British Columbia supplies to Kingsgate (and vis-versa). This could represent a potential way around a significant Westcoast or Foothills/NOVA interruption. We will also run sensitivities using varying the prices between the BC and AB basins to gauge arbitrage opportunities

MODEL NAME	CONTRACT LOCATION TYPE	PIPELINE	PRICE TYPE	XPIRY DATE	OTHER COMMENTS	PRICE OR INDEX BASIS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
WCT-CNG CG	WCT/CNG Citygate	NWP	Index w Resv	Oct-14	Increm after orig, demand charge of $0.05 to $0.15	SUMAS FLAT, .03	25,000	25,000	25,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
NWP CG	NWP Citygate	NWP	Index w Resv	Oct-13	Increm after orig, demand charge $0.05 to $0.30	.09,.05	30,000	30,000	15,000							
AECO AN IND	AECO Annual	NOVA, FOOTHILL, GTN, NWP	Index	Oct-14	Increm after orig	.01, transport	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
AECO AN FIX	AECO Annual	NOVA, FOOTHILL, GTN, NWP	Fixed	Oct-14	Increm after orig, price goes to avg of next 3 yrs, then zero	4.379	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
AECO SEA IND	AECO Seasonal	NOVA, FOOTHILL, GTN, NWP	Index	Mar-14	Increm after orig	0.01	6,800	6,800	5,000							
AECO SEA FIX	AECO Seasonal	NOVA, FOOTHILL, GTN, NWP	Fixed	Oct-12	Increm after orig, price goes to avg of next 3 yrs, then zero	5.51	15,000	15,000		2,000	2,000					3,000
AECO VAR IND	AECO Seasonal	NOVA, FOOTHILL, GTN, NWP	VV Index	Jun-12	Increm after orig	0.01	8,500	8,500	5,000	2,000	3,500	1,000				
AECO VAR FIX	AECO Seasonal	NOVA, FOOTHILL, GTN, NWP	VV Fixed	Feb-13	Increm after orig, price goes to avg of next 3 yrs, then zero	5.182	10,000			7,000						
AECO DAY IND	AECO Day Gas	NOVA, FOOTHILL, GTN, NWP	Index		Variable volume, up to 10,000 day	0.01					4,500		1,400	1,300	1,800	
AECO DAY FIX	AECO Day Gas	NOVA, FOOTHILL, GTN, NWP	Fixed		Avg of next 3 yrs											
AECO STRUC	AECO Structured	NOVA, FOOTHILL, GTN, NWP	Index w Levels		Variable volume, up to 10,000 day											
AECO PEAK	AECO Peaking	NOVA, FOOTHILL, GTN, NWP	Index w Resv		Incremental, demand charge $0.05 to $0.25, vol variable	0.03	10,000	10,000	10,000							
RM AN IND	Rockies Annual	NWP, RUBY, CROSS CASCADE	Index	Oct-14	Increm after orig	0.015	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500
RM AN FIX	Rockies Annual	NWP, RUBY, CROSS CASCADE	Fixed	Oct-14	Increm after orig, price goes to avg of next 3 yrs, then zero	5.09	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000
RM AN VVIND	Rockies Annual	NWP, RUBY, CROSS CASCADE	VV Index		Variable volume, up to 10,000 day											
RM AN VVFIX	Rockies Annual	NWP, RUBY, CROSS CASCADE	VV Fixed		Avg of next 3 yrs											
RM SEA IND	Rockies Seasonal	NWP, RUBY, CROSS CASCADE	Index	Mar-14	Increm after orig	0.02	25,500	26,500	26,750							3,000
RM SEA FIX	Rockies Seasonal	NWP, RUBY, CROSS CASCADE	Fixed	Feb-12	Increm after orig, price goes to avg of next 3 yrs,	7.1	4,000	4,000								

MODEL NAME	CONTRACT LOCATION TYPE	PIPELINE	PRICE TYPE	XPIRY DATE	OTHER COMMENTS	PRICE OR INDEX BASIS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
RM SEA VVIND	Rockies Seasonal	NWP, RUBY, CROSS CASCADE	VV Index	Feb-13	Increm after orig	0.005	6,000	6,000		6,000	6,000	3,000	4,000	4,000	4,000	4,000		
RM SEA VVFIX	Rockies Seasonal	NWP, RUBY, CROSS CASCADE	VV Fixed	Mar-13	Increm after orig, price goes to avg of next 3 yrs, then zero	5.69	1,000	3,500	1,500							4,000	1,500	4,500
RM DAY IND	Rockies Day Gas	NWP, RUBY, CROSS CASCADE	Index		Variable volume, up to 10,000 day	-0.005					4,300						30,000	
RM DAY FIX	Rockies Day Gas	NWP, RUBY, CROSS CASCADE	Fixed		Avg of next 3 yrs													
RM STRUC	Rockies Structured	NWP, RUBY, CROSS CASCADE	Index w Levels	Oct-14	Increm after orig	4.29	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
RM PEAK	Rockies Peaking	NWP, RUBY, CROSS CASCADE	Index w Resv		Variable volume, up to 10,000 day													
BC AN IND	Sumas Annual	WCT, NWP, SOUTHERN CROSS (NOVA, FOOTHILLS, GTN)	Index	Oct-14	Increm after orig	0.17	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
BC AN FIX	Sumas Annual	WCT, NWP, SOUTHERN CROSS (NOVA, FOOTHILLS, GTN)	Fixed	Oct-14	Increm after orig, price goes to avg of next 3 yrs, then zero	4.725	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
BC AN VVIND	Sumas Annual	WCT, NWP, SOUTHERN CROSS (NOVA, FOOTHILLS, GTN)	VV Index		Variable volume, up to 10,000 day													
BC AN VVFIX	Sumas Annual	WCT, NWP, SOUTHERN CROSS (NOVA, FOOTHILLS, GTN)	VV Fixed	Oct-13	Increm after orig, price goes to avg of next 3 yrs, then zero	5.766	5,000	5,000	1,000	5,000	5,000	1,500	1,500	1,500	1,500	5,000	1,000	5,000
BC SEA IND	Sumas Seasonal	WCT, NWP, SOUTHERN CROSS (NOVA, FOOTHILLS, GTN)	Index	Mar-14	Increm after orig	-0.18	23,250	20,250	15,250								12,750	23,250
BC SEA FIX	Sumas Seasonal	WCT, NWP, SOUTHERN CROSS (NOVA, FOOTHILLS, GTN)	Fixed	Feb-12	Increm after orig, price goes to avg of next 3 yrs, then zero	5.29	13,000	15,000	15,000								13,000	13,000
BC SEA VVIND	Sumas Seasonal	WCT, NWP, SOUTHERN CROSS (NOVA, FOOTHILLS, GTN)	VV Index	Mar-14	Increm after orig	0.07	9,000	5,000	250							1,250	5,000	7,500
BC SEA VVFIX	Sumas Seasonal	WCT, NWP, SOUTHERN CROSS (NOVA, FOOTHILLS, GTN)	VV Fixed		Avg of next 3 yrs													

MODEL NAME	CONTRACT LOCATION TYPE	PIPELINE	PRICE TYPE	XPIRY DATE	OTHER COMMENTS	PRICE OR INDEX BASIS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
BC DAY IND	Sumas Day Gas	WCT, NWP, SOUTHERN CROSS (NOVA, FOOTHILLS, GTN)	Index		Variable volume, up to 10,000 day	0.0025			5,000	15,600	2,500	12,000	4,000	9,000	8,000	1,100	22,000	43,000
BC DAY FIX	Sumas Day Gas	WCT, NWP, SOUTHERN CROSS (NOVA, FOOTHILLS, GTN)	Fixed		Avg of next 3 yrs													
BC STRUC	Sumas Structured	WCT, NWP, SOUTHERN CROSS (NOVA, FOOTHILLS, GTN)	Index w Levels		Variable volume, up to 10,000 day													
BC PEAK	Sumas Peaking	WCT, NWP, SOUTHERN CROSS (NOVA, FOOTHILLS, GTN)	Index w Resv		Incremental, demand charge $0.05 to $0.25, vol variable	0.05	10,000	10,000	10,000								10,000	10,000
MALN SEA FIX	Turquoise Flats Seasonal	RUBY, GTN, NWP	Fixed		Avg of next 3 yrs													
MALN DAY IND	Turquoise Flats Daily	RUBY, GTN, NWP	Index		Variable volume, up to 10,000 day													
MALN AN FIX	Turquoise Flats Annual	RUBY, GTN, NWP	Fixed		Avg of next 3 yrs													
MALN SEA IND	Turquoise Flats Seasonal	RUBY, GTN, NWP	Index		Variable volume, up to 10,000 day													
MALN AN IND	Turquoise Flats Annual	RUBY, GTN, NWP	Index		Variable volume, up to 10,000 day													
MALN STRUC	Turquoise Flats Structured	RUBY, GTN, NWP	Index w Levels		Variable volume, up to 10,000 day													
MALN SE VVIND	Turquoise Flats Seasonal	RUBY, GTN, NWP	VV Index		Variable volume, up to 10,000 day													
MALN SE VVFIX	Turquoise Flats Seasonal	RUBY, GTN, NWP	VV Fixed		Avg of next 3 yrs													
MALN AN VVFIX	Turquoise Flats Annual	RUBY, GTN, NWP	VV Fixed		Avg of next 3 yrs													
MALN AN VVIND	Turquoise Flats Annual	RUBY, GTN, NWP	VV Index		Variable volume, up to 10,000 day													
MALN PEAK	Turquoise Flats Peaking	RUBY, GTN, NWP	Index w Resv		Incremental, demand charge $0.05 to $0.25, vol variable	0.04	10,000	10,000	10,000								10,000	10,000
SAT LNG 10	Satellite LNG Zone 10	CNG	NYMEX		RUN AT VARIABLE VOLUMES UP TO THE AMOUNT		1,000	1,000	1,000								1,000	1,000
SAT LNG 11	Satellite LNG Zone 11	CNG	NYMEX		RUN AT VARIABLE VOLUMES UP TO THE AMOUNT		1,000	1,000	1,000								1,000	1,000

MODEL NAME	CONTRACT LOCATION TYPE	PIPELINE	PRICE TYPE	XPIRY DATE	OTHER COMMENTS	PRICE OR INDEX BASIS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SAT LNG 30-S	Satellite LNG Zone 30-S	CNG	NYMEX		RUN AT VARIABLE VOLUMES UP TO THE AMOUNT		1,000	1,000	1,000								1,000	1,000
SAT LNG OR	Satellite LNG Zone Oregon	CNG	NYMEX		RUN AT VARIABLE VOLUMES UP TO THE AMOUNT		1,000	1,000	1,000								1,000	1,000
BNG 10	Bio-natural gas Zone 10	CNG	NYMEX		RUN AT VARIABLE VOLUMES UP TO THE AMOUNT		1,000	1,000	1,000								1,000	1,000
BNG 20	Bio-natural gas Zone 20	CNG	NYMEX		RUN AT VARIABLE VOLUMES UP TO THE AMOUNT		1,000	1,000	1,000								1,000	1,000
BNG ME-OR	Bio-natural gas Zone Meacham-Oregon	CNG	NYMEX		RUN AT VARIABLE VOLUMES UP TO THE AMOUNT		1,000	1,000	1,000								1,000	1,000

ALL POTENTIAL
EXISTING AND POTENTIAL ADDITIONAL STORAGE RESOURCES

	Model Name	Type	Location	Pipeline Transport Required	Evergreen	Start	Contract Expiration	Lead Time	Max Cap	WD MDQ	Fuel Inj < 3%	SVDD	D2 RATE > $0.05 < $0.15
STORAGE 1	JP-1	Undergound	Jackson Prairie	Yes	Yes	1994	2014	NA	604,351	16,789	YES	SGS	YES
STORAGE 2	JP-EXP	Undergound	Jackson Prairie	Yes	Yes	2009 (full access mid-2012)	2060	NA	350,000	30,000	YES	SGS	YES
STORAGE 3	LNG	LNG	Plymouth	Yes	Yes	1994	2014	NA	562,207	60,000	YES	SGS	YES
STORAGE 4	*RYCKMAN CREEK STORAGE*	*Undergound*	*Opal Hub*	*Yes*	*NA*	*2013*	*2032*	*NA*	*350,000*	*10,000*	*YES*	*RYCK*	*YES*
STORAGE 5	*MIST STORAGE*	*Undergound*	*Mist*	*Yes*	*NA*	*2013*	*2032*	*NA*	*350,000*	*10,000*	*YES*	*MIST*	*YES*
STORAGE 6	*INCREM-JP*	*Undergound*	*Jackson Prairie*	*Yes*	*Yes*	*2012*	*2032*	*TBD*	*350,000*	*10,000*	*YES*	*SGS*	*YES*

POTENTIAL ADDITIONAL PIPELINE TRANSPORT RESOURCES

Model Name	Start Date	End Date	Daily MDQ	Description	Cost Dths	Lead Time	Pipeline	RMIX MAX	RMIX MIN	VARIABLE < $.10	FUEL < 3%		
INCR-PGT	*Nov-12*	*TBD*	*20000*	*AECO NIT, Foothills to Kingsgate*	*NOVA, Foothills, GTN*		*NOVA, Foothills, GTN*	*UP TO 50,000*	*0*	*YES*	*YES*		
INCR-WGPW	*Nov-12*	*TBD*	*20000*	*Sumas to WA and OR citygates*	*NWP Rate up to 4x*		*NWP*	*UP TO 50,000*	*0*	*YES*	*YES*		
CROSS CASCADE	*Nov-15*	*TBD*	*10000*	*Rockies to Stanfield Interconnect*	*Precedent Agmt*	*>3 years*	*TBD*	*UP TO 50,000*	*0*	*YES*	*YES*		
INCR-STAINF	*Nov-12*	*TBD*	*20000*	*Stanfield Interconnect to Central OR*	*GTN Rate*	*> 2 years*	*GTN*	*UP TO 50,000*	*0*	*YES*	*YES*		
INCR-RUBY	*Nov-13*	*TBD*	*20000*	*Opal Hub to Turquoise Flats*	*0.95*		*RUBY*	*UP TO 50,000*	*0*	*YES*	*YES*		
PALOMAR XPORT	*Nov-15*	*TBD*	*10000*	*Madras OR to Molalla OR (bi-directional)*	*NWP Rate up to 4x*	*> 3 years*	*PALOMAR*	*UP TO 50,000*	*0*	*YES*	*YES*		
PAC CONNECT	*Nov-15*	*TBD*	*10000*	*Jordona Cove OR to Malin*	*NWP Rate up to 4x*	*> 3years*	*PAC CONNECT*	*UP TO 50,000*	*0*	*YES*	*YES*		

MODEL NAME	CONTRACT DESCRIPTION	PIPELINE	XPIRY DATE	RESV RATE	MDQ	ANNUAL	SEASONAL
FTHL FS-1 7.6K	FS-1 Transportation (ANG) June 12, 1991 (CNG FS-1)	FOOTHILLS	10/31/2023	0.1043	7600		X
FTHL FS-2 3.1K	2002 Service Agreement (CNG FS-2)	FOOTHILLS	11/1/2017	0.1043	3126	X	
FTHL FS-3 21K	Service Agreement (ANG) September 11, 2001 (#CNG FS-3)	FOOTHILLS	10/31/2028	0.1043	21500	X	
GTN 152 7.4K	Firm Transportation #00152 (December 1, 1997)	GTN	10/31/2023	0.24592	7446		X
GTN 179 31.3K	Firm Transportation #00179 (October 7, 1993)	GTN	10/31/2023	0.184362	31335	X	
GTN 2812 3.6K	Firm Transportation #02812 (November 4, 1994)	GTN	11/1/2015	0.320201	3600		X
GTN EXP 20.3K	2003 Expansion, #08844	GTN	10/31/2028	0.320201	20380		X
NOVA 22K	Service Agreement (NOVA) September 4, 2001 (#2003039348-1)	NOVA	10/31/2028	0.2292	21800	X	
NWP-064	Contract #100064 May 8, 1995	NWP	3/31/2013	0.37883	1078	X	
NWP-134	Contract #100134 January 15,1993	NWP	11/30/2015	0.37883	330	X	
NWP-149	Contract #100149 February 15,1996	NWP	11/30/2015	0.37883	75	X	
NWP-150	Contract #100150 May 15, 1996	NWP	11/30/2015	0.37883	160	X	
NWP-ACQ12	Contract #139090 June 2, 2011	NWP	3/31/2052	0.37883	27063	X	
NWP-JPBREM	Contract #135384 (JP/Bremerton), March 26, 2007	NWP	10/31/2029	0.37883	30000		X
NWP-JPEXP-TF	Jackson Prairie Expansion Precident Agreement	NWP	10/31/2060	0.08453	30000		X
NWP-SEDRO	Contract 139382 Sumas/Sedro Wooley	NWP	10/31/2050	0.37883	6191	X	
NWP-SEDRO	Contract 139383 Sumas/Sedro Wooley	NWP	10/31/2050	0.37883	1050	X	
NWP-SEDRO	Contract 139384 Sumas/Sedro Wooley	NWP	10/31/2050	0.37883	3259	X	
NWP-SUMPDX	Contract #135558 (Sumas/Prtld), 4/1/2007)	NWP	4/30/2020	0.37883	25400	X	
NWP-TF1	TF-1 Contract #100002 April 31, 1991	NWP	4/30/2015	0.37883	206123	X	
NWP-TF2-LS	Contract #100304 LS-1 (January 12, 1994)	NWP	10/31/2014	0.37883	15000		X
NWP-TF2-SGS	Contract #100302 SGS-1 January 12, 1994	NWP	10/31/2014	0.37883	2000		X
NWP-WEY	Weyer Release Contract #132329 July 1, 2004	NWP	1/31/2016	0.37883	5000	X	
RUBY 10K	Firm Service Agreement January 9, 2012	RUBY	4/30/2037	0.75	10000		X
WCT 20K	Westcoast Service Agreemenet January 3, 2002 (#FI-2583-B-00)	WESTCOAST	10/31/2014	0.5095	20000	X	

Other thoughts, questions, concerns…

- **Are there other ideas or concerns that you feel need to be addressed?**
- **Are there other alternatives we should consider?**

2012 Integrated Resource Plan

Technical Advisory Group Meeting

May 16, 2012

2012 Integrated Resource Plan

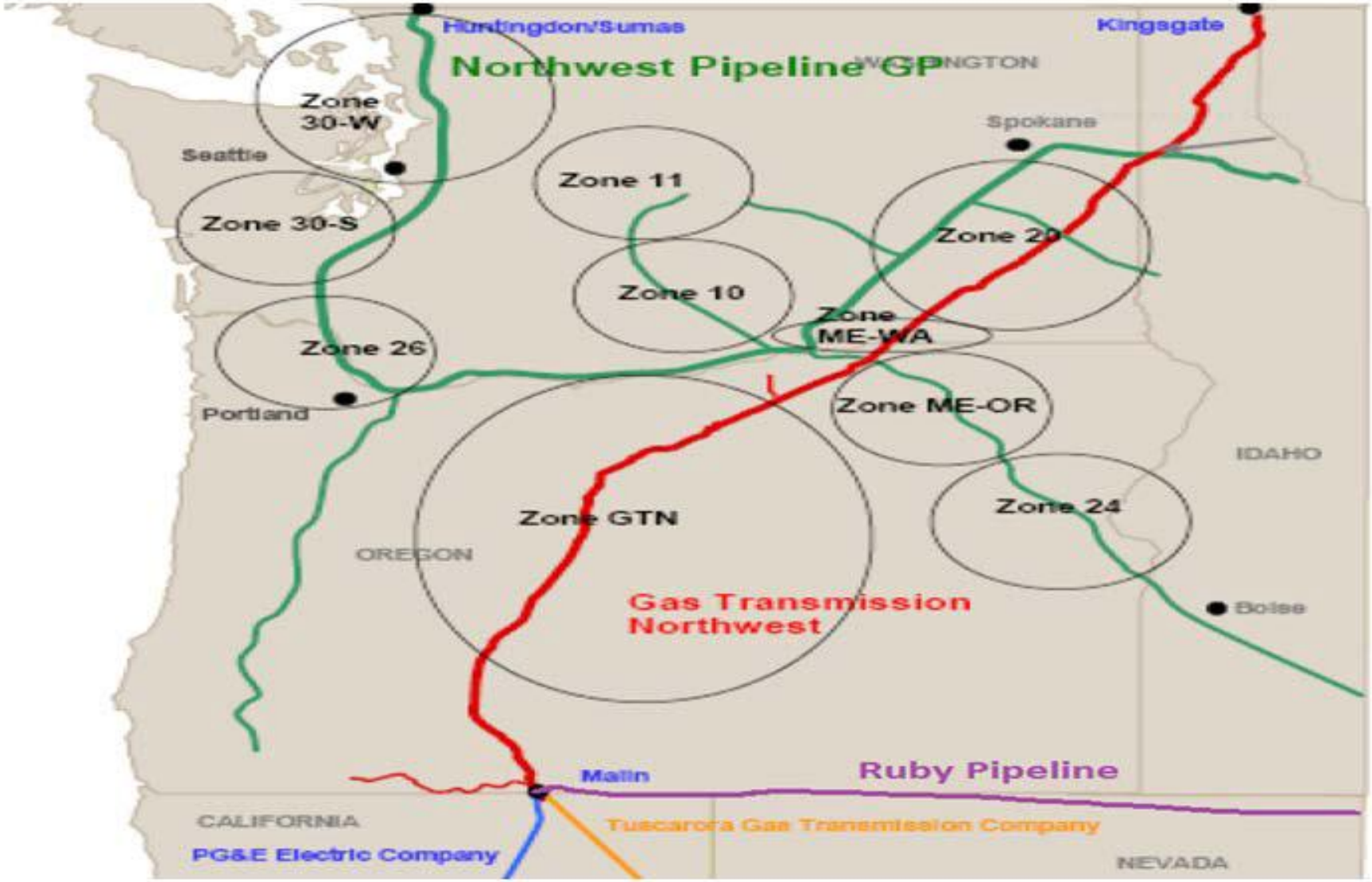
Technical Advisory Group Meeting

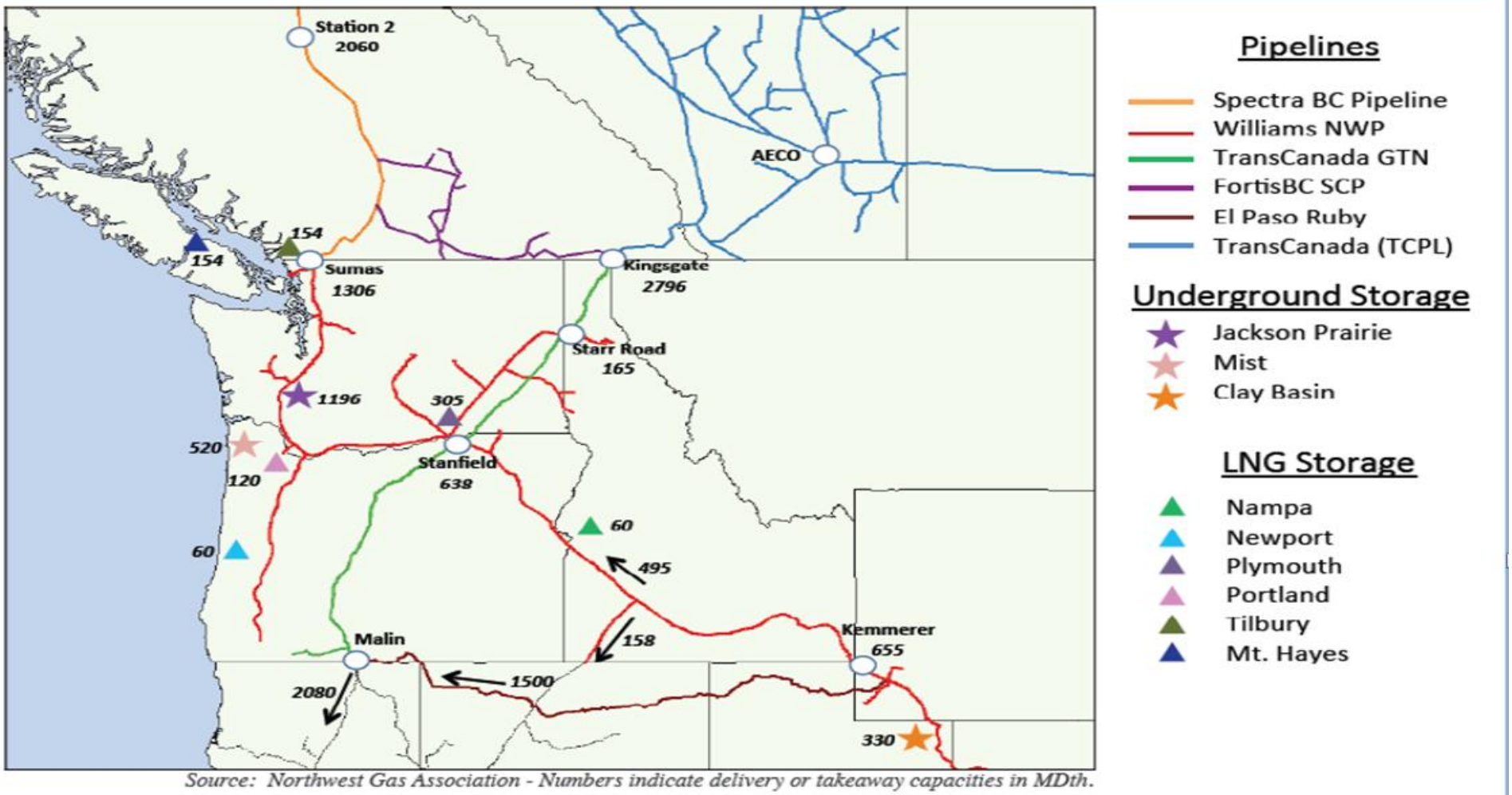
September 20, 2012

1

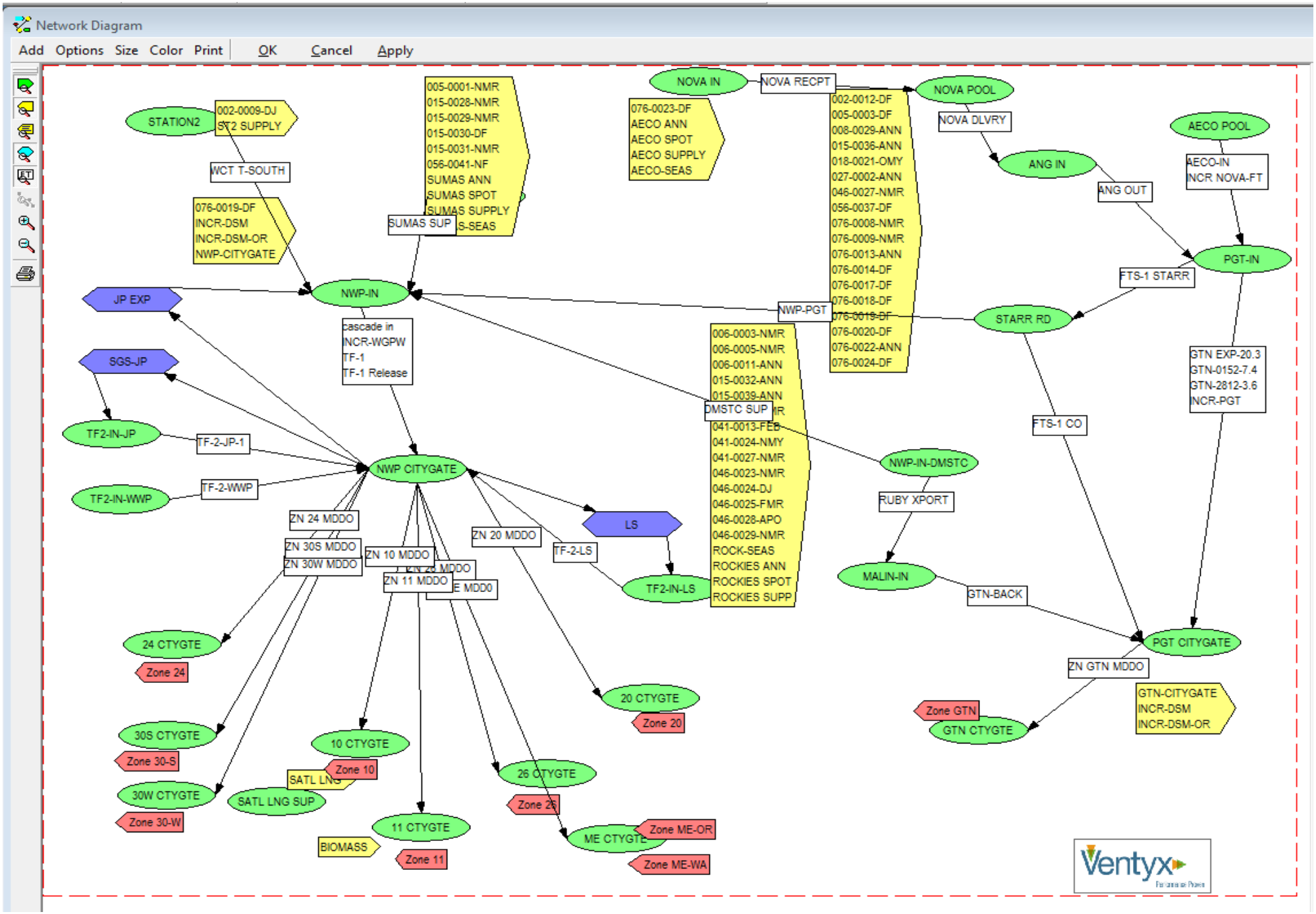
Agenda

- Introductions
- Overview of the maps
- SENDOUT scenarios and inputs
- NPVs
  - Future meeting dates/Other Comments


Huntingdon/Sumas
Kingsgate
Northwest Pipeline GP
Zone 30-W
Seattle
Spokane
Zone 11
Zone 30-S
Zone 20
Zone 10
Zone ME-WA
Zone 26
Portland
Zone ME-OR
IDAHO
Zone GTN
Zone 24
OREGON
Gas Transmission Northwest
Boise
Malin
Ruby Pipeline
CALIFORNIA
Tuscarora Gas Transmission Company
PG&E Electric Company
NEVADA



Source: Northwest Gas Association - Numbers indicate delivery or takeaway capacities in MDth.


Network Diagram
Add Options Size Color Print OK Cancel Apply
STATION2
002-0009-DJ
ST2 SUPPLY
WCT T-SOUTH
076-0019-DF
INCR-DSM
INCR-DSM-OR
NWP-CITYGATE
005-0001-NMR
015-0028-NMR
015-0029-NMR
015-0030-DF
015-0031-NMR
056-0041-NF
SUMAS ANN
SUMAS SPOT
SUMAS SUPPLY
SUMAS SUP
S-SEAS
NOVA IN
NOVA RECPT
076-0023-DF
AECO ANN
AECO SPOT
AECO SUPPLY
AECO-SEAS
NOVA POOL
NOVA DLVRY
002-0012-DF
005-0003-DF
008-0029-ANN
015-0036-ANN
018-0021-OMY
027-0002-ANN
046-0027-NMR
056-0037-DF
076-0008-NMR
076-0009-NMR
076-0013-ANN
076-0014-DF
076-0017-DF
076-0018-DF
076-0019-DF
076-0020-DF
076-0022-ANN
076-0024-DF
ANG IN
ANG OUT
AECO POOL
AECO-IN
INCR NOVA-FT
PGT-IN
FTS-1 STARR
STARR RD
JP EXP
NWP-IN
NWP-PGT
cascade in
INCR-WGPW
TF-1
TF-1 Release
SGS-JP
TF2-IN-JP
TF-2-JP-1
TF2-IN-WWP
TF-2-WWP
NWP CITYGATE
DMSTC SUP
006-0003-NMR
006-0005-NMR
006-0011-ANN
015-0032-ANN
015-0039-ANN
041-0013-FEB
041-0024-NMY
041-0027-NMR
046-0023-NMR
046-0024-DJ
046-0025-FMR
046-0028-APO
046-0029-NMR
ROCK-SEAS
ROCKIES ANN
ROCKIES SPOT
ROCKIES SUPP
NWP-IN-DMSTC
RUBY XPORT
MALIN-IN
GTN-BACK
FTS-1 CO
GTN EXP-20.3
GTN-0152-7.4
GTN-2812-3.6
INCR-PGT
PGT CITYGATE
ZN GTN MDDO
GTN-CITYGATE
INCR-DSM
INCR-DSM-OR
Zone GTN
GTN CTYGTE
ZN 24 MDDO
ZN 30S MDDO
ZN 30W MDDO
ZN 10 MDDO
ZN 11 MDDO
ZN 20 MDDO
TF-2-LS
LS
TF2-IN-LS
24 CTYGTE
Zone 24
30S CTYGTE
Zone 30-S
30W CTYGTE
Zone 30-W
SATL LNG SUP
10 CTYGTE
Zone 10
SATL LNG
BIOMASS
11 CTYGTE
Zone 11
26 CTYGTE
Zone 26
ME CTYGTE
Zone ME-OR
Zone ME-WA
20 CTYGTE
Zone 20
Ventyx

	EXISTING SUPPLY PORTFOLIO (AUGUST 2012)																
	MODEL NAME	TERMINATION	EST AVG PRICE	PRICE FORMULA		Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13
	DESCRIPTION	DATE	PER DAY		POINT	30	31	31	28	31	30	31	30	31	31	30	31
1	002-0009-DJ	1/31/2013	$ 3.0884	IF S plus $.12	SUMAS		5000	5000									
2	002-012-DF	2/28/2013	$ 5.7400	Fixed	NOVA	0	700	1000	1000	0	0	0	0	0	0	0	0
3	005-0001-NMR	3/31/2014	$ 3.5667	IF SUMAS + $.0075	SUMAS	1250	3750	3750	8750	1250							
4	005-0003-DF	2/28/2013	$ 4.5200	Fixed	NOVA	0	700	1000	1000	0	0	0	0	0	0	0	0
5	006-0003-NMR	3/31/2013	$ 3.0459	IF RM - $.01	ROCKIES	10000	10000	10000	10000	10000							
6	006-0005-NMR	3/31/2013	$ 3.0309	IF RM -$.025	ROCKIES	5000	5000	5000	5000	5000							
7	006-0011-ANN	10/31/2014	$ 4.7250		SUMAS	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
8	008-0029-ANN	10/31/2014	$ 2.8936	CGPR - $.17	DET	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
9	015-0028-NMR	3/31/2014	$ 3.0103	IF SUMAS-$.39	SUMAS	2250	2250	2250	2250	2250							
10	015-0029-NMR	3/31/2014	$ 2.9903	IF SUMAS- $.41	SUMAS	8000	8000	8000	8000	8000							
11	015-0030-DF	2/28/2014	$ 2.7161	IF SUMAS -$.65	SUMAS		2500	2500	2500								
12	015-0031-NMR	3/31/2013	$ 2.7881	IF SUMAS -$.45	SUMAS	7500	7500	7500	7500	7500							
13	015-0032-ANN	10/31/2014	$ 4.8851	<$6.51>$7.26 dth/day	ROCKIES	2500	2500	2500	2500	2500	1000	1000	1000	1000	1000	1000	1000
14	015-0036-ANN	10/31/2014	$ 3.4043	CGPR Plus $.01 Plus upst	KING	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
15	015-0039-ANN	10/31/2014	$ 4.2900	IF RM -$1.0 FLR $4.29	ROCKIES	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
16	027-0002-ANN	10/31/2014	$ 4.5925		NOVA	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
17	028-0004-NMR	3/31/2013	$ 4.7500	Fixed	ROCKIES	1500	5000	2500	5000	1500	0	0	0	0	0	0	0
18	041-0013-FEB	2/28/2013	$ 2.8809	IF RM Plus $.005	ROCKIES				3000								
19	041-0024-NMY	5/31/2013	$ 3.0180	IF RM -$.01	ROCKIES	2000	2000	2000	2000	2000	2000	2000					
20	041-0027-NMR	10/31/2014	$ 4.6850		ROCKIES	3000	3000	3000	3000	3000							
21	046-0023-NMR	3/31/2013	$ 2.7959	IF RM -$.08	ROCKIES	5000	5000	5000	5000	5000							
22	046-0024-DJ	1/31/2014	$ 3.1997	IF RM Less $.08	ROCKIES												
23	046-0025-FMR	3/31/2014	$ 3.2701	IF RM +$.01	ROCKIES				4000	4000							
24	046-0027-NMR	3/31/2014	$ 3.6814	IF RM +$.01	ROCKIES												
25	046-0028-AO	10/31/2013	$ 3.0345	IF RM-.02	ROCKIES	0	0	0	0	0	10000	5000	5000	5000	5000	5000	10000
26	046-0029-NMR	3/31/2013	$ 2.9359	IF RM +$.01	ROCKIES	1000	5000	5000	5000	1000							
27	056-0037-DF	2/28/2013	$ 4.5500	Fixed	NOVA	0	700	1000	1000	0	0	0	0	0	0	0	0
28	056-0041-NF	2/28/2013	$ 3.0591	IF SUMAS + $.0275		2000	2000	2000	2000								
29	076-0008-NMR	3/31/2014	$ 2.9353	CGPR + $.015	NOVA	2000	2000	2000	2000	2000							
30	076-0009-NMR	2/28/2014	$ 2.8966	CGPR + $.015	NOVA	1000	3000	3000	3000	1000							
31	076-0013-ANN	10/31/2013	$ 5.7660	Fixed $5.766	NOVA	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
32	076-0014-DF	2/28/2013	$ 5.4900	Fixed	NOVA	0	700	1000	1000	0	0	0	0	0	0	0	0
33	076-0017-DF	2/28/2013	$ 5.4960	Fixed	NOVA	0	700	1000	1000	0	0	0	0	0	0	0	0
34	076-0020-DF	2/28/2013	$ 5.4360	Fixed	NOVA	0	700	1000	1000	0	0	0	0	0	0	0	0
35	076-0018-DF	2/28/2013	$ 5.1060	Fixed	NOVA	0	700	1000	1000	0	0	0	0	0	0	0	0
36	076-0019-DF	2/28/2013	$ 5.7460	Fixed	NOVA	0	700	1000	1000	0	0	0	0	0	0	0	0
37	076-0022-ANN	10/31/2013	$ 5.9960	Fixed $5.996	SUMAS	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
38	076-0023-DF	2/28/2013	$ 4.6560	Fixed	NOVA	0	700	1000	1000	0	0	0	0	0	0	0	0
39	076-0024-DF	2/28/2013	$ 4.4560	Fixed	NOVA	0	700	1000	1000	0	0	0	0	0	0	0	0
40	018-0021-OMY	10/31/2013	$ 5.5160	Fixed $5.516	SUMAS	500	500	500	500	500	6000	3000	0	0	0	0	3000

	EXISTING SUPPLY PORTFOLIO (AUGUST 2012)																
	MODEL NAME	TERMINATION	EST AVG PRICE	PRICE FORMULA		Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14
	DESCRIPTION	DATE	PER DAY		POINT	30	31	31	28	31	30	31	30	31	31	30	31
1	002-0009-DJ	1/31/2013	$ 3.0884	IF S plus $.12	SUMAS												
2	002-012-DF	2/28/2013	$ 5.7400	Fixed	NOVA												
3	005-0001-NMR	3/31/2014	$ 3.5667	IF SUMAS + $.0075	SUMAS	750	3750	3750	3750	750							
4	005-0003-DF	2/28/2013	$ 4.5200	Fixed	NOVA												
5	006-0003-NMR	3/31/2013	$ 3.0459	IF RM - $.01	ROCKIES												
6	006-0005-NMR	3/31/2013	$ 3.0309	IF RM -$.025	ROCKIES												
7	006-0011-ANN	10/31/2014	$ 4.7250		SUMAS	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
8	008-0029-ANN	10/31/2014	$ 2.8936	CGPR - $.17	DET	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
9	015-0028-NMR	3/31/2014	$ 3.0103	IF SUMAS-$.39	SUMAS	2250	2250	2250	2250	2250							
10	015-0029-NMR	3/31/2014	$ 2.9903	IF SUMAS- $.41	SUMAS	8000	8000	8000	8000	8000							
11	015-0030-DF	2/28/2014	$ 2.7161	IF SUMAS -$.65	SUMAS		2500	2500	2500								
12	015-0031-NMR	3/31/2013	$ 2.7881	IF SUMAS -$.45	SUMAS												
13	015-0032-ANN	10/31/2014	$ 4.8851	<$6.51>$7.26 dth/day	ROCKIES	2500	2500	2500	2500	2500	1000	1000	1000	1000	1000	1000	1000
14	015-0036-ANN	10/31/2014	$ 3.4043	CGPR Plus $.01 Plus upst	KING	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
15	015-0039-ANN	10/31/2014	$ 4.2900	IF RM -$1.0 FLR $4.29	ROCKIES	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
16	027-0002-ANN	10/31/2014	$ 4.5925		NOVA	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
17	028-0004-NMR	3/31/2013	$ 4.7500	Fixed	ROCKIES												
18	041-0013-FEB	2/28/2013	$ 2.8809	IF RM Plus $.005	ROCKIES												
19	041-0024-NMY	5/31/2013	$ 3.0180	IF RM -$.01	ROCKIES												
20	041-0027-NMR	10/31/2014	$ 4.6850		ROCKIES	3000	3000	3000	3000	3000							3000
21	046-0023-NMR	3/31/2013	$ 2.7959	IF RM -$.08	ROCKIES												
22	046-0024-DJ	1/31/2014	$ 3.1997	IF RM Less $.08	ROCKIES		5000	5000									
23	046-0025-FMR	3/31/2014	$ 3.2701	IF RM +$.01	ROCKIES				4000	4000							
24	046-0027-NMR	3/31/2014	$ 3.6814	IF RM +$.01	ROCKIES	4000	6000	6000	6000	4000							
25	046-0028-AO	10/31/2013	$ 3.0345	IF RM-.02	ROCKIES												
26	046-0029-NMR	3/31/2013	$ 2.9359	IF RM +$.01	ROCKIES												
27	056-0037-DF	2/28/2013	$ 4.5500	Fixed	NOVA												
28	056-0041-NF	2/28/2013	$ 3.0591	IF SUMAS + $.0275													
29	076-0008-NMR	3/31/2014	$ 2.9353	CGPR + $.015	NOVA	2000	2000	2000	2000	2000							
30	076-0009-NMR	2/28/2014	$ 2.8966	CGPR + $.015	NOVA		500	500	500								
31	076-0013-ANN	10/31/2013	$ 5.7660	Fixed $5.766	NOVA												
32	076-0014-DF	2/28/2013	$ 5.4900	Fixed	NOVA												
33	076-0017-DF	2/28/2013	$ 5.4960	Fixed	NOVA												
34	076-0020-DF	2/28/2013	$ 5.4360	Fixed	NOVA												
35	076-0018-DF	2/28/2013	$ 5.1060	Fixed	NOVA												
36	076-0019-DF	2/28/2013	$ 5.7460	Fixed	NOVA												
37	076-0022-ANN	10/31/2013	$ 5.9960	Fixed $5.996	SUMAS												
38	076-0023-DF	2/28/2013	$ 4.6560	Fixed	NOVA												
39	076-0024-DF	2/28/2013	$ 4.4560	Fixed	NOVA												
40	018-0021-OMY	10/31/2013	$ 5.5160	Fixed $5.516	SUMAS												

	ALTERNATE SUPPLY RESOURCES (AUGUST 2012)											
	MODEL NAME	**CATEGORY**	**OTHER CAT INFO**	**RECEIPT PT(S)**	**DELIVERY PT(S)**	**PRICE INDEX**	**INDEX DIFFERENTIAL/EST PRICE**	**COMM ADDER**	**DEMAND CHARGE**	**DEAL START DATE**	**DEAL END DATE**	**MDQ IN DTHS**
1	FIRM IFSUM	ANNUAL	EXISTING	SUMAS	NWP, GTN	IFERC SUMAS	$ 0.0400	YES		RMIX for EXISTING	3/31/2014	VARIABLE
2	FIRM IF RM	ANNUAL	EXISTING	ROCKIES	NWP, GTN	IFERC ROCKIES	$ 0.0300	YES		RMIX for 2012	3/31/2014	VARIABLE
3	FIRM NYM NIT	ANNUAL	EXISTING	AECO	NWP, GTN	NYMEX HH	$ 0.0150	YES		RMIX for 2012	2/28/2014	VARIABLE
4	FIRM CGP NIT	ANNUAL	EXISTING	AECO	NWP, GTN	AECO (CGPR)	$ 0.0100	YES		RMIX for 2012	3/31/2014	VARIABLE
5	FIRM FX NIT1	SEASONAL	EXISTING	AECO	NWP, GTN	FIXED	$ 3.6650			RMIX for 2012	2/28/2013	VARIABLE
6	FIRM CGP ST2	SEASONAL	EXISTING	STATION 2	NWP, GTN	AECO (CGPR)	$ 0.0467	YES		RMIX for 2012	4/1/2013	VARIABLE
7	FIRM FX SUM	SEASONAL	EXISTING	SUMAS	NWP, GTN	FIXED	$ 4.0800			RMIX for 2012	10/31/2013	VARIABLE
8	PEAK 1	PEAKING	EXISTING	CITYGATE	NWP	GD SUMAS	$ 0.1800	YES	0.05	RMIX for 2012	10/31/2014	15000
9	PEAK 2	PEAKING	EXISTING	CITYGATE	NWP	GD SUMAS	FLAT			RMIX for 2012	10/31/2014	15000
10	PEAK 4	PEAKING	EXISTING	SUMAS	NWP	GD SUMAS	$ 0.0300	YES	0.03	RMIX for 2012	10/31/2014	5000
11	FIRM I STAN	SEASONAL	EXISTING	STANIFIELD	NWP, GTN	IFERC SUMAS	$ (0.4700)	YES		RMIX for 2012	3/31/2014	VARIABLE
12	PEAK 5	PEAKING	EXISTING	AECO	NWP, GTN	AECO (CGPR)	$ 0.0200	YES	0.1	RMIX for 2012	3/1/2013	5000
13	FIRM FX NIT2	SEASONAL	EXISTING	AECO	NWP, GTN	FIXED	$ 3.0600			RMIX for 2012	2/29/2012	VARIABLE
14	FIRM FX ST2	SEASONAL	EXISTING	FIXED	NWP, GTN	FIXED	$ 4.1600			RMIX for 2012	12/1/2013	VARIABLE
15	FIRM GD ST2	SEASONAL	EXISTING	STATION 2	NWP, GTN	GD SUMAS	$ 0.0500	YES		RMIX for 2012	4/1/2014	10000
16	FIRM FX RM2	SEASONAL	EXISTING	ROCKIES	NWP, GTN	FIXED	$ 3.6700			RMIX for 2012	3/31/2013	VARIABLE
17	FIRM STR RM	ANNUAL	EXISTING	ROCKIES	NWP, GTN	FIXED IF IF RM < $4	$ 3.4000			RMIX for 2012	11/1/2014	1000 - 2500
18	FIRM STR SUM	SEASONAL	EXISTING	SUMAS	NWP, GTN	IFSUM -.25 W/FLR				RMIX for 2012	3/1/2012	5000
19	FIRM CG NIT	ANNUAL	EXISTING	CITYGATE	GTN	AECO (CGPR)	$ 0.3000	YES		RMIX for 2012	10/31/2014	VARIABLE
20	FIRM GD SUM	SEASONAL	EXISTING	SUMAS	NWP, GTN	GD SUMAS	$ 0.0250	YES		RMIX for 2012	10/31/2012	VARIABLE
21	FIRM CG SUM	SEASONAL	EXISTING	CITYGATE	NWP	IFERC SUMAS	$ 0.4200	YES		RMIX for 2012	10/31/2014	VARIABLE
22	FIRM SPT SUM	SEASONAL	RMIX	SUMAS	NWP, GTN	IFERC SUMAS		NO		11/1/2012	INCREMENTAL	VARIABLE
23	FIRM SPT NIT	SEASONAL	RMIX	AECO	GTN	AECO (CGPR)		NO		11/1/2012	INCREMENTAL	VARIABLE
24	FIRM SPT RM	SEASONAL	RMIX	ROCKIES	NWP, GTN	IFERC ROCKIES		NO		11/1/2012	INCREMENTAL	VARIABLE
25	INCR SUM A	ANNUAL	RMIX	SUMAS	NWP, GTN	IFERC SUMAS		NO		11/1/2012	INCREMENTAL	VARIABLE
26	INCR RM A	ANNUAL	RMIX	ROCKIES	NWP, GTN	IFERC ROCKIES		NO		11/1/2012	INCREMENTAL	VARIABLE
27	INCR NIT A	ANNUAL	RMIX	AECO	GTN	AECO (CGPR)		NO		11/1/2012	INCREMENTAL	VARIABLE
28	INCR SUM S	SEASONAL	RMIX	SUMAS	NWP, GTN	IFERC SUMAS		NO		11/1/2012	INCREMENTAL	VARIABLE
29	INCR RM S	SEASONAL	RMIX	ROCKIES	NWP, GTN	IFERC ROCKIES		NO		11/1/2012	INCREMENTAL	VARIABLE
30	INCR NIT S	SEASONAL	RMIX	AECO	GTN	AECO (CGPR)		NO		11/1/2012	INCREMENTAL	VARIABLE
31	INCR ST2	SEASONAL	RMIX	STATION 2	NWP, GTN	GD SUMAS		NO		11/1/2012	INCREMENTAL	VARIABLE
32	INCR STRU SU	ANNUAL	RMIX	SUMAS	NWP, GTN	STRUCTURED	Index Ls $0.25 if Inde	NO		11/1/2012	INCREMENTAL	VARIABLE
33	INCR STRU RM	ANNUAL	RMIX	ROCKIES	NWP, GTN	STRUCTURED	Index Ls $0.25 if Inde	NO		11/1/2012	INCREMENTAL	VARIABLE
34	INCR STRU AE	ANNUAL	RMIX	AECO	GTN	STRUCTURED	Index Ls $0.25 if Inde	NO		11/1/2012	INCREMENTAL	VARIABLE
35	INCR SUM FX	ANNUAL	RMIX	SUMAS	NWP, GTN	FIXED		NO		11/1/2012	INCREMENTAL	VARIABLE
36	INCR RM FX	ANNUAL	RMIX	ROCKIES	NWP, GTN	FIXED		NO		11/1/2012	INCREMENTAL	VARIABLE
37	INCR NIT FX	ANNUAL	RMIX	AECO	GTN	FIXED		NO		11/1/2012	INCREMENTAL	VARIABLE

	ALTERNATE SUPPLY RESOURCES (AUGUST 2012)											
	MODEL NAME	**CATEGORY**	**OTHER CAT INFO**	**RECEIPT PT(S)**	**DELIVERY PT(S)**	**PRICE INDEX**	**INDEX DIFFERENTIAL/EST PRICE**	**COMM ADDER**	**DEMAND CHARGE**	**DEAL START DATE**	**DEAL END DATE**	**MDQ IN DTHS**
38	INCR MAL	SEASONAL	RMIX	MALIN	BACKHAULS NWP, GTN	MALIN		NO		11/1/2012	INCREMENTAL	VARIABLE
39	SAT LNG	SEASONAL	RMIX	ZONAL	ZONAL	NYMEX HH		NO		11/1/2012	INCREMENTAL	VARIABLE
40	IMP LNG NOR	SEASONAL	RMIX	PALOMAR	BACKHAULS NWP, GTN	NYMEX HH		NO		11/1/2015	INCREMENTAL	VARIABLE
41	IMP LNG SOR	SEASONAL	RMIX	PACIFIC CONNECTOR	BACKHAULS NWP, GTN	NYMEX HH		NO		11/1/2016	INCREMENTAL	VARIABLE
42	SAT PROP	SEASONAL	RMIX	ZONAL	ZONAL	NYMEX HH		NO		11/1/2016	INCREMENTAL	VARIABLE
43	INCR CG NWP	SEASONAL	RMIX	CITYGATE	NWP	NYMEX HH		NO		11/1/2016	INCREMENTAL	VARIABLE
44	INCR CG GTN	SEASONAL	RMIX	CITYGATE	GTN	NYMEX HH		NO		11/1/2016	INCREMENTAL	VARIABLE
	SUPPLY MDQS ARE CAPPED AT 20,000 DTHS/DAY											

Potential and Existing Storage and Transport

2012 Integrated Resource Plan

EXISTING AND POTENTIAL ADDITIONAL STORAGE RESOURCES

	Model Name	Type	Location	Pipeline Transport Required	Start	Contract Expiration	Lead Time	PRINCIPLE DEL AREA			Max Cap	WD MDQ	Fuel Inj < 3%	SVDD	D2 RATE > $0.05 < $0.15
1	JP-1	Undergound	Jackson Prairie	Yes	Existing	2020	NA	MOST OR AND WA NWP POINTS			604,351	16,789	YES	SGS	YES
2	JP-EXP	Undergound	Jackson Prairie	Yes	Full access begins in Nov 2012	2060	NA	ZONE 30-S			350,000	30,000	YES	SGS	YES
3	LNG	LNG	Plymouth	Yes	Existing	2020	NA	MANY OR AND WA NWP POINTS			562,200	60,000	YES	SGS	YES
4	JP-3	Undergound	Jackson Prairie	Yes	Nov-12			ZONE 30-S, ZONE 30-W			102,782	3,500	YES		YES
5	JP-4	Undergound	Jackson Prairie	Yes	Nov-12			ZONE 30-S, ZONE 30-W			178,460	6,077	YES		YES
6	RYCKMAN	Undergound	Near Opal WY	Yes	2013			ZONE-GTN, OTHER			350000 - 500000	10,000	YES	RYCK	NEGOTIATED
7	AECO STORAGE	Undergound	AECO	Yes	2014						300,000	10,000	YES	AECO C STRG	YES
8	MIST STORAGE	Undergound	Mist	Yes	2014			NWP			300,000	10,000	YES	MIST	YES
9	CLAY BSN	Undergound	Wyoming	Yes	2014			NWP, RUBY						SGS	
10	JP-OTHER	Undergound	Jackson Prairie	Yes	2014			NWP			300,000	5,000	YES	SGS	YES

	TRANSPORT RATES			
Ln #	**Pipeline**	**Rate**		**Rate Change**
	Westcoast - T-South Service			
1	Huntington Delivery Rate (5yr Service term)	$ 0.50950		Every three years
2	Motor Fuel Tax (Average 2010)	$ 0.41632	$7175 per month	
3	Carbon Tax (Average 2010)	$ 0.75935	$13087per month	
	Foothills - BC			
	FT Firm Service (A/BC to Kingsgate)			
4	FT Rate	$ 0.10430		Every three years
5	Fuel	1.100%		
	Nova Gas Transmission			
6	Firm Transportation Rate	$ 0.22920		Every three years
	TransCanada GTN			
	FTS-1 Rate			
7	Daily Mileage	$ 0.000498	(Dth-Mile)	Every five years
8	Daily Non-Mileage	$ 0.003922	(Dth)	$0.21 for backhaul
9	Delivery	$ 0.000016	(Dth-Mile)	
10	Fuel %	0.2500%	(Dth)	
	Charge to Delivery locations			
11	Starr Road	108.29	$ 0.053928	
12	Stanfield	277.37	$ 0.138130	
13	Bend	454.51	$ 0.226346	
14	Malin	612.46	$ 0.305005	

	TRANSPORT RATES			
Ln #	**Pipeline**	**Rate**		**Rate Change**
	Northwest Pipeline			
	TF-1 Rate			
15	Reservation (System-Wide)	$ 0.37883	($/Dth)	Every five years
16	Volumetric (System-Wide)	$ 0.03000	($/Dth)	
17	Fuel	1.85%		
	TF-2 Rate (Storage)			
18	Reservation	$ 0.37883	($/Dth)	
19	Volumetric	$ 0.03000	($/Dth)	
	SGS-2F			
20	Capacity Demand Charge (Pre-Exp Shipper)	$ 0.00056	($/Dth)	
21	Capacity Demand Charge (Exp Shipper)	$ 0.00232	($/Dth)	
22	Demand Charge (Pre-Exp Shipper)	$ 0.01547	($/Dth)	
23	Demand Charge (Exp Shipper)	$ 0.08453	($/Dth)	
	LS-2F			
24	Capacity Demand Charge	$ 0.00390	($/Dth)	
25	Demand Charge	$ 0.03054	($/Dth)	
26	Liquefaction	$ 0.64110	($/Dth)	
27	Vaporization	$ 0.04184	($/Dth)	
	Ruby			
28	Reservation Rate (seasonal)	$ 0.75	($/Dth)	Every five years
30	Reservation Rate (max rate)	$ 0.95	($/Dth)	
31	Commodity Rate	$ 0.01	($/Dth)	
32	Fuel	0.44%	(Dth)	
	We use standard escalation factor in SENDOUT: 3% first year, 4% each subsequent renewal period			

	POTENTIAL ADDITIONAL PIPELINE TRANSPORT RESOURCES									
	Model Name	Start Date	End Date	Daily MDQ	Description	Cost Dths	Lead Time	Pipeline	VARIABLE < $.10	FUEL < 3%
1	BLUEBRDIGE	TBD	TBD	VARIABLE	Stanfield and/or Stanfield Interconnect to I-5 Corridor?	NWP Rate X 3 (min approx $1.14)	TBD	NWP, PALOMAR?	YES	YES
2	INCR-GTN-BK	2013	OPEN	VARIABLE	Malin backhaul to Central OR and Stanfield Interconnect	GTN Rate (approx $0.22)	Some level now	GTN	YES	YES
3	INCR-GTN-FW	2013	OPEN	VARIABLE	AECO NIT, Foothills to Kingsgate	NOVA, Foothills, GTN (approx $0.64)	Avail now	NOVA, Foothills, GTN	YES	YES
4	INCR-NWP	2013	OPEN	VARIABLE	Sumas to WA and OR citygates	NWP Rate X 3 (min approx $1.14)	TBD	NWP	YES	YES
5	INCR-RUBY	2013	2021	VARIABLE	Opal Hub to Mailin	Variable up to $0.95	Cap Rel avail now	RUBY	YES	YES
6	PAC CONNECT	TBD	OPEN	VARIABLE	Jordona Cove OR to Malin?	NWP Rate X 3 (min approx $1.14)	> 4 years	PAC CONNECT	YES	YES
7	PALOMAR XPORT	TBD	OPEN	VARIABLE	Madras OR to Molalla OR (bi-directional)?	NWP Rate X 3 (min approx $1.14)	> 3years	PALOMAR	YES	YES
8	SO-XING	2016	15 YEARS	VARIABLE	Huntingdon/Kingsgate	$0.45 to 0.47	> 3 years	SPECTRA, SO-XING	YES	YES

	SCENARIO NAME	KEY ELEMENTS IN SENDOUT	COMMENT ON RESULTS	NPV 20 Yr Portfolio costs in $000s	Avg Cost Per Therm
1	All in Case	Medium Load Growth, Medium Gas Price Forecast, Average weather with Peak Event. Includes existing supply contracts, incremental supplies (peaking, annual, seasonal and citygate) from various receipt points (AECO, Rockies, Sumas, Station 2, Ruby, as well as behind the citygate (satellite LNG)). Incremental supplies also include propane, satellite LNG (behind citygate), imported LNG, current upstream pipeline transport capacity, as well as proposed pipelines and extensions (Modified-Palomar-BlueBridge, Pacific Connector, incremental pipeline capacity (NWP, GTN, Foothills, Nova, Ruby). We also included Cascade's current Jackson Prairie storage accounts, our Plymouth LNG account, as well as the potential to obtain a third party's Jackson Prairie account, as well as Ryckman Creek, AECO and Mist storage. All excess capacity release under RS 685 is returned to the core by 2014.Almost any alternative that can be reasonably considered is included.	The all resource run allows the company to determine the likely base case although the company still runs sensitivities on the various pipeline projects. Currently Ruby accompanied with incremental GTN capacity seems to be selected. None of the initial LNG facilities were selected unless extremely discounted (e.g. reservation rates at less than $0.05)	$2,743,510	$0.46961
2	Base Case (Expected)	Medium Load Growth, Medium Gas Price Forecast, Average weather with Peak Event. Includes existing supply contracts, incremental supplies (peaking, annual, seasonal and citygate) from various receipt points (AECO, Rockies, Sumas, Station 2, Malin, as well as behind the citygate (satellite LNG)) along the Wenatchee lateral. All excess capacity release under RS 685 is returned to the core by 2014.We also included Cascade's current Jackson Prairie storage accounts, our Plymouth LNG account. Incremental GTN, NWP and Ruby capacity is acquired to meet shortfalls.	In the base case, the anticipated demand with our existing resources plus several of the alternative resources had the lowest PVRR (The T-South enhancement is slightly lower but not viewed as a viable source) and was therefore selected as our preferred portfolio. Alternative supply-side resources selected to meet demand include: 1) the acquisition of currently available pipeline capacity on GTN, 2) Conservative expectations to re-align contract rights on NWP to points with potential shortfall 3) Currently available Ruby capacity coupled with GTN backhaul 4) A small amount of biofuel is assumed to be available in isolated areas of the CNGC (zone 10 and 11). 5) Satellite LNG at critical sites (Bend, Yakima, Shelton) are the least of cost/risk options currently available to meet peak day demand given the limited plans by NWP to have a system expansion. 6) Leasing additional JP is included to the extent that it can be sized (or leased from another party) to meet our needs. 7) Ryckman is also a possibility was not selected for the base case at this time as there are too many unknowns (interconnect with Ruby, potential rate, length, sizing) at this time. 8) Similarly none of the imported LNG proposals seem likely to come to fruition.	$2,403,106	$0.41134

	SCENARIO NAME	KEY ELEMENTS IN SENDOUT	COMMENT ON RESULTS	NPV 20 Yr Portfolio costs in $000s	Avg Cost Per Therm
3	Limited Canadian Imports	Model contains all the elements of the Base case, but incremental Annual AECO and seasonal Sumas resources will be unavailable to the model. Additionally, annual Sumas max is lowered from to 50% of contract MDQ.	• Not likely—will be exporter • Natural gas is expected to be abundant for the foreseeable future • The other storage options may provide some other sourcing possibilities.	$2,710,061	$0.46398
4	No basin price advantage	Model contains all the elements of the Base case; however, all potential incremental resources are priced at NYMEX flat with no basis adder. In other words, incremental AECO, Sumas and Rockies all have the same price. This scenario allowed testing of inputs as transport costs were the variable.	In this run, the model chose to increase interest in acquiring Ruby. We continue to run numerous sensitivities with varying levels of restrictions in order to see the impact to the portfolio.	$2,423,970	$0.41491
5	Incremental Ruby	Model contains all the elements of the Base case; however, Ruby Pipeline is added as an additional resource. For modeling purposes we assume the $0.95 rate (the max rate identified in their tariff). The model is set up so that Ruby becomes an option to move Rockies gas to GTN, where it would require incremental GTN capacity (backhaul) to move to Cascade's citygates, likely in Central Oregon, although it is possible to move the gas to Stanfield for transport on NWP.	Rate stacking (GTN and Ruby); although discounts increased electability volumes • Basis parity would mean this provides transportation diversity as opposed to supply diversity • GTN backhaul offering	$2,449,811	$0.41934
6	Ryckman Creek	Medium Load Growth, Medium Gas Price Forecast, Average weather with Peak Event. Includes existing supply contracts, incremental supplies (peaking, annual, seasonal and citygate) from various receipt points (AECO, Rockies, Sumas, Station 2, Malin, as well as behind the citygate (satellite LNG)) along the Wenatchee lateral. All excess capacity release under RS 685 is returned to the core by 2014.We also included Cascade's current Jackson Prairie storage accounts, our Plymouth LNG account. Incremental GTN, NWP and Ruby capacity is acquired to meet shortfalls. Facility was tied only to Ruby and NWP. We let SENDOUT size the working inventory. Since rates are negotiated at Ryckman we modeled using annualize price for JP Expansion on NWP, and ran various scenarios to see at what level	SENDOUT only selected Ruby for transporting storage. NWP appears not to be selected due to lack of available northbound capacity. It should be noted that while we have received proposals in excess of 1 bcf, SENDOUT consistently sized the working inventory at less than .5 bcf, regardless of the negotiated rate.	TBA	TBA

	SCENARIO NAME	KEY ELEMENTS IN SENDOUT	COMMENT ON RESULTS	NPV 20 Yr Portfolio costs in $000s	Avg Cost Per Therm
7	T-South Enhancement	Medium Load Growth, Medium Gas Price Forecast, Average weather with Peak Event. Includes existing supply contracts, incremental supplies (peaking, annual, seasonal and citygate) from various receipt points (AECO, Rockies, Sumas, Station 2, Malin, as well as behind the citygate (satellite LNG)) along the Wenatchee lateral. All excess capacity release under RS 685 is returned to the core by 2014.We also included Cascade's current Jackson Prairie storage accounts, our Plymouth LNG account. Incremental GTN, NWP and Ruby capacity is acquired to meet shortfalls. Model was given the flexibility to move AECO supplies to BC and visversa along Southern Crossing.	While the model did select a small increment of this service, upon further analysis the only time the model took the supplies if when there was a clear price advantage. Since SENDOUT has perfect knowledge of prices every day we decided it was unrealistic to assume this service is viable at this time for the potfolio.	$2,399,977	$0.41081
8	Imported LNG	Medium Load Growth, Medium Gas Price Forecast, Average weather with Peak Event. Includes existing supply contracts, incremental supplies (peaking, annual, seasonal and citygate) from various receipt points (AECO, Rockies, Sumas, Station 2, Malin, as well as behind the citygate (satellite LNG)) along the Wenatchee lateral. All excess capacity release under RS 685 is returned to the core by 2014.We also included Cascade's current Jackson Prairie storage accounts, our Plymouth LNG account. Incremental GTN, NWP and Ruby capacity is acquired to meet shortfalls. We assumed a Pacific Connector type of facility. However it is expected that this would be an export facility so Cascade's advantage is to acquire supplies as the gas moves across the pipeline to the export facility.	The Company has insufficient information available as to the likelihood and costs associated with acquiring additional transport capability to move supplies from the proposed Northwest facilities to Cascade's distribution system	$2,716,354	$0.46496
	Basecase Scenario High Load Growth Low Load Growth				
	Environmental Externalities Case 1			$2,683,084	$0.45927
	Environmental Externalities Case 2			$2,787,726	$0.47718
	Environmental Externalities Case 3			$2,997,011	$0.51300

	SCENARIO NAME	KEY ELEMENTS IN SENDOUT	COMMENT ON RESULTS	NPV 20 Yr Portfolio costs in $000s	Avg Cost Per Therm
	Simulation Results				
	Monte-Carlo Average			$2,399,363	$0.41070
	Monte-Carlo Expected High			$2,715,659	$0.46484
	Monte-Carlo Expected Low			$2,040,981	$0.34936

In the Community to Serve®

2012
Integrated Resource Plan
Technical Advisory Group
Materials for 5th Meeting

October 26, 2012

Section 5

Supply Side Resources (Draft)

Cascade's core market residential and small volume commercial and industrial customers expect and require the highest reliability of energy service. Because of the Company's obligation to provide gas service to these customers, the Company must determine and achieve the needed degrees of service reliability and attain the lowest costs possible while providing an infrastructure that responds to the customers' concerns in meeting customer growth and provides all necessary administrative services to provide the stated services. Assuming such an infrastructure is in place and operating effectively, the most important functions necessary for reliable natural gas service are planning for, providing and administering the gas supply, interstate pipeline transportation capacity, and distribution service components that constitute the "bundled services" required by core market customers.

Cascade's 20-year supply side resource goal is to continue to meet the energy needs of its core market customers with a package of services that combines adequate gas supplies and cost-effective winter peaking services with long-term pipeline transportation contracts and sufficient distribution system capacity at the lowest possible cost.

This section describes the various gas supply resource and transportation resource options that are available to the Company as supply side resources.

Gas Supply Resource Options

Gas supply options available to Cascade to meet the core market demand requirements generally fall into two groups: 1) Firm gas supplies on a short or long-term basis, and 2) Short term gas supplies purchased on the open market as needed for a particular month for one or more days. A separate and important source of gas supply is natural gas storage service, which is required to meet the needs of the broad seasonal peak and the needle peaks of the heating season in order to provide economical service to low load factor customers.

Firm Supply Contracts

Firm supply contracts commit both the seller and the buyer to deliver and take gas on a firm basis, except for *force majeure* conditions. From Cascade's perspective, the most important consideration is the seller's contractual commitment to make gas available day in and day out, regardless of market conditions. Firm supplies are a necessary component of Cascade's core market portfolio given the obligation to serve and the lack of easily obtainable alternatives for consumers during periods of peak demand. Firm contracts can provide baseload services, provide seasonal peaking services during the winter months, or can be used to meet daily needle peaking requirements. Each of these services is discussed briefly below.

Baseload resources are those that are taken day in and day out, 365 days a year. As a result, baseload gas tends to be the least expensive of the firm supply contracts because it matches the production of gas and guarantees the producer that the volumes will be taken. Cascade’s ability to contract for baseload supplies is limited because of

the relatively low summer demand on the system. Baseload resources are used to meet the non-weather sensitive portion of the core market requirements, or may be used to refill storage reservoirs during periods of lower demand.

Winter gas supplies are firm gas supplies that are purchased for a short period during the winter months to cover increased loads, primarily for space heating. The contracts are typically 3 to 5 month durations (primarily November through March). This enables the Company to ensure firm winter supplies without incurring obligations for high levels of take during periods of low demand in the summer months. Winter supplies combined with baseload supplies will be adequate to cover the moderately cold days in winter.

Peaking gas supplies, similar to storage, are firm contracts purchased only as load actually materializes due to high winter demand. That is, the producer must deliver the gas when the Company requires it, but the Company is not required to take gas unless needed to meet customer load requirements. Peaking resources typically allow the Company to take between 15 and 20 days of service during the winter period. These resources are more expensive than baseload or winter supplies and typically include fixed charges to cover the costs for the producers to stand by to deliver the supplies.

Needle peaking resources are utilized during severe or “arctic” cold experiences when demand can increase sharply. These resources are very expensive and are available for a very short period of time. One source of needle peaking gas supply that is actually a form of demand side management may be obtained from Cascade's industrial customer base. These customers would be required to maintain standby or alternate fuel capability that Cascade would contract the right to request the customer switch to so Cascade could utilize (divert) their gas supply and transportation capacity to meet the Company’s core market requirements. The benefits associated with this type of resource would include lowering the demand of the industrial facility, and providing a like amount of additional gas supply with pipeline capacity to meet core demand. Needle peaking requirements can also be met through the use of propane air plants, or on-site liquefied natural gas (LNG) facilities.

Contract terms for firm commodity supplies vary greatly. Some contracts specify fixed prices, while others are based on indices that float from month to month. Some contracts have fixed reservation charges assessed each month, while others may have minimum daily or monthly take requirements. Most contain penalty provisions for failure to take the minimum supply according to the contract terms. Contract details will also vary from year to year, depending on company and supplier needs and the general trends in the market.

More specific descriptions of the alternatives appear later in this section. Appendix E summarizes the gas supply alternatives evaluated during this planning cycle.

Spot Market Supplies (also "just in time" or "day gas")

Gas that is purchased for a short period of time (1 to 30 days) when neither the seller nor the buyer has a longer-term firm commitment to deliver or take the gas is referred to as a spot market purchase. Spot market supplies differ from firm resources in that they are more volatile, both in terms of availability and price, and are largely influenced by the laws of supply and demand.

In general, spot market supplies are provided from gas supplies not under any long- term firm contract, as mentioned earlier. Therefore, as firm market demand decreases, more gas becomes available for the spot market. Prices for spot market supplies are market driven and may be either lower or higher than prices under firm supply contracts. In warmer weather, as firm market demand requirements decrease, usually more gas becomes available for the spot market, resulting in lower prices. In colder weather, as firm markets demand their gas supplies, the remaining spot market supplies can carry higher prices until the price equates or exceeds that of alternate energy supplies (such as oil or electricity). Spot supplies can be expected to move to the markets that offer the highest price, which in turn can affect delivery reliability.

Due to the potential for interruption of the spot market, these supplies are not considered as reliable a source of gas supply for the winter peaking requirements of Cascade's core market. As identified earlier, part of the reason these supplies are considered less reliable is that these volumes are made available after longer-term firm commitments have been contracted for delivery by upstream suppliers. These available volumes are likely to vary daily, depending on production or the suppliers' ability to store un-marketed supply. Under a NAESB (North American Energy Standards Board) contract, which is the standard contract used by buyers and sellers when entering into short term supply transactions, parties have the ability to identify firm variable or interruptible quantities for these supplies. Therefore, these spot volumes are more susceptible to daily operational constraints on the upstream pipelines. This is particularly true in the case of Northwest Pipeline, which is a displacement pipeline with bi-directional flow. Depending on how gas is scheduled versus actually flowing between compressor stations, constraints can possibly occur. Complicating matters is that each of the pipelines has multiple supply scheduling deadlines, allowing scheduled volumes to be adjusted. As a result, at any given point in the process, constraints can occur, leading to the potential of the scheduled spot supply volumes being reduced or not delivered to the citygate at all.

The role for spot market gas supply in the core market portfolio is based upon economics. Spot market supplies may be used to supplement firm contracts during periods of high demand or to displace other volumes when it is cost-effective to do so. For example, should prices in one basin drop radically compared to another basin, a contract may allow the flexibility to reduce takes in order to take advantage of supply from a lower priced basin. Depending upon availability and price, spot market volumes may be used in place of storage withdrawal volumes to meet firm requirements on a given day or for mid-heating season refills of storage inventory during periods of weather moderation.

Other Unconventional Gas Supply Resources

Cascade considers Unconventional Gas Supply Resources such as supplies from an LNG Import Terminal, BNG or other manufactured gas supply opportunities as speculative supply side resources at this point in time. In most cases unconventional gas supply resources would become an alternative to traditional gas supplies from the conventional gas fields in Canada or the Rockies and would have to compete for inclusion in the Company's portfolio planning. The two remaining LNG Import Terminal projects since the publishing of the last IRP, Jordan Cove and Oregon LNG, have shifted to export facilities. In early 2012, both facilities filed with FERC to withdraw their plans to import LNG. Jordan Cove re-filed with FERC to become an exporter; industry experts expect Oregon LNG to follow suit. Recently, a natural gas power plant is being planned to be built in the Jordan Cover region to power the LNG exportation.

One of the potential impacts of having export facilities in the Pacific Northwest (including the Kitimat) is what affect the flow of natural gas to export facilities will have on competition and pricing of natural gas supplies. Demand for natural gas in Asia, coupled with relatively inexpensive and plentiful shale gas may create a favorable long-term market opportunity for North American producers. For example, Japan has been hesitant to restart their nuclear plants in the aftermath of the devastating earthquake and tsunami of 2011. However, demand for energy will continue there as well as in China, as that country increasingly flexes its growing economic muscle and need for energy to drive its manufacturing base.

Infrastructure such as the Williams' Companies' Pacific Connector Pipeline to move natural gas to these facilities also means the opportunity to divert some of these supplies to markets such as LDCs that are located near the routes to the exportation facilities. In periods of great demand in Asia one would expect upward pressure on natural gas prices; correspondingly during periods of lower demand, prices would likely drop. Of course, if it is economical to do so, producers will increase the volumes of natural gas to this area, which will provide another supply resource alternative for Cascade. While it is much too early to tell (since exportations have yet to begin at any of these facilities), exportation facilities in the Pacific Northwest could potentially create a new pricing dynamic for the region; a dynamic which Cascade will be monitoring carefully as both public (EIA) and private (Wood MacKenzie, Bentek) intelligence becomes available.

Palomar Gas Transmission has withdrawn its application for a certificate to build a natural gas pipeline in Oregon, and it has told the Federal Energy Regulatory Commission that it continues to work with potential customers and a potential additional partner to provide a regional solution to the need for access to this important form of energy. Palomar said that while they will no longer seek to permit a pipeline to serve the previously proposed liquefied natural gas terminal on the Columbia River, it will continue its effort to find commercial support for a new pipeline in Oregon to meet the needs of the Pacific Northwest.

Another alternative is BNG. Bio natural gas continues to receive increased attention as a possible resource. BNG typically refers to a gas produced by the biological breakdown of

organic matter in the absence of oxygen. BNG originates from biogenic material and is a type of biofuel. One type of BNG is produced by anaerobic digestion or fermentation of biodegradable materials such as biomass, manure or sewage, municipal waste, green waste and energy crops. This type of BNG is comprised primarily of methane and carbon dioxide. The principal type of BNG is wood gas which is created by gasification of wood or other biomass. This type of BNG is comprised primarily of nitrogen, hydrogen, and carbon monoxide, with trace amounts of methane.

The gases methane, hydrogen and carbon monoxide can be combusted or oxidized with oxygen. Air contains 21% oxygen. This energy release allows BNG to be used as a fuel. BNG can be used as a low-cost fuel in any country for any heating purpose, such as cooking. It can also be utilized in modern waste management facilities where it can be used to run any type of heat engine, to generate either mechanical or electrical power. BNG is a renewable fuel, which can be used for transport, and electricity production, so it attracts renewable energy subsidies in some parts of the world.

In many cases, there is currently not enough pricing and information available to be considered in this planning cycle; however, where possible, we have endeavored to analyze those situations where we feel sufficient data is available. Cascade continues to monitor the BNG activities of companies such as Pacific Gas & Electric, Intermountain Gas, Sempra Utilities and Puget Sound Energy.

Storage Resources

Cascade also utilizes natural gas storage to meet a portion of the requirements of its core market. Storing gas supplies, purchased and injected during periods of low demand, is a cost-effective way of meeting some of the peak requirements of Cascade's firm market. Natural gas can be stored in naturally occurring reservoirs, such as depleted oil or gas fields, salt caverns or other geological formations with an impermeable cap over a porous reservoir. Gas can also be stored in vessels or tanks under pressure as compressed natural gas, or cooled to a liquid state, which is liquefied natural gas (LNG).

Natural gas storage service is not only an excellent supply source for meeting peak winter demand, but it can also be an important gas supply management tool. Storing excess or unused supply during periods of low demand increases the annual utilization rate of a supply contract, therefore improving the annual load factor for the Company's gas supplies. Improving the annual load factor of a supply contract improves the Company's ability to purchase gas supplies on a more economical basis. Purchasing natural gas for storage during periods of low demand generally yields prices at the low point on the seasonal price curve.

Depending upon the location of the storage facility, pipeline transportation may also be required. Storage facilities located within the Company's distribution system or on the interstate pipeline are preferable to those located "off-system". Off-system storage requires additional pipeline transportation and may limit the flexibility of the resource. Cascade does not own its own storage facility and therefore must contract with storage owners to access a portion of their storage capacity. In 1994, Cascade had two contracts for utilization of underground storage located at Jackson Prairie (SGS-1). SGS-1 service is

contracted directly from NWP and additional SGS-1 service was assigned from Avista Corporation for Cascade's use. Both of these contracts provided daily deliverability and seasonal inventory capacity. However, Avista declined to extend its agreement with Cascade and the Avista storage service was no longer available following the 2006/07 heating season.

Consequently, Cascade entered into an Agreement with Northwest Pipeline for additional Jackson Prairie storage service that will replace the access to storage that was available through the Avista storage contract. The new Agreement will provide Cascade with twice the amount of daily deliverability of the Avista agreement (30,000 Dth/d vs. 15,000 Dth/d) with approximately the same annual storage quantity. The Jackson Prairie expansion will be fully operational by late Fall 2012. Cascade has also entered into a companion transportation Agreement with Northwest Pipeline for the transportation of gas supplies stored under this Agreement to Cascade's service area.
The Company also has contracted for service (LS-1) from NWP's Plymouth, Washington LNG facility. Both Jackson Prairie facilities and the Plymouth facility are located directly on NWP's transmission system. Therefore, storage withdrawal rates can be changed several times during an individual gas day to accommodate weather driven changes in core customer requirements. This type of operating flexibility would not necessarily be available with off-system storage. The Company's contracted storage services as of the last IRP (2010) are summarized below. Cascade has recently acquired two additional storage accounts at Jackson Prairie. Those will be discussed in more detail later in this section.

TABLE 5-1
Cascade's contracted storage services as of the 2010 IRP

STORAGE FACILITY	SEASONAL QUANTITY (Dths)	DAILY WITHDRAWAL RIGHTS (Dths)	EXPIRATION DATE
PLYMOUTH (LNG)	562,200	60,000	10/21/2019
JACKSON PRAIRIE	604,351	16,789	10/31/2019
JACKSON PRAIRIE EXPANSION	326,339	30,000	10/31/2060

Withdrawal capabilities must also be accompanied by firm capacity on the transporting pipeline(s) to be of any value as a reliable source of gas supply. Cascade's SGS-1 and LS-1 service requires TF-2 firm transportation service for storage withdrawals; Cascade has sufficient firm TF-2 service to meet its storage daily deliverability levels.

Capacity Resource Options

Capacity options are either interstate pipeline transportation resources or capacity on Cascade's local distribution system. Cascade's local distribution system was built to serve the entire connected load in its various distribution service areas, on a coincidental demand basis, regardless of the type of service the customer may have been receiving. Cascade generally has the distribution capacity available to deliver the gas to customers if the pipeline delivers the gas to the Company's citygate stations. Core interruptible service relates to the spot market supplies and interruptible interstate pipeline transportation contracted to serve these markets. Cascade does not contract for firm supply or interstate transportation for these interruptible customers. Cascade's interruptible rates also reflect the fact that no firm supply or transportation services are purchased on behalf of interruptible customers.

Interstate Pipeline Transportation Services

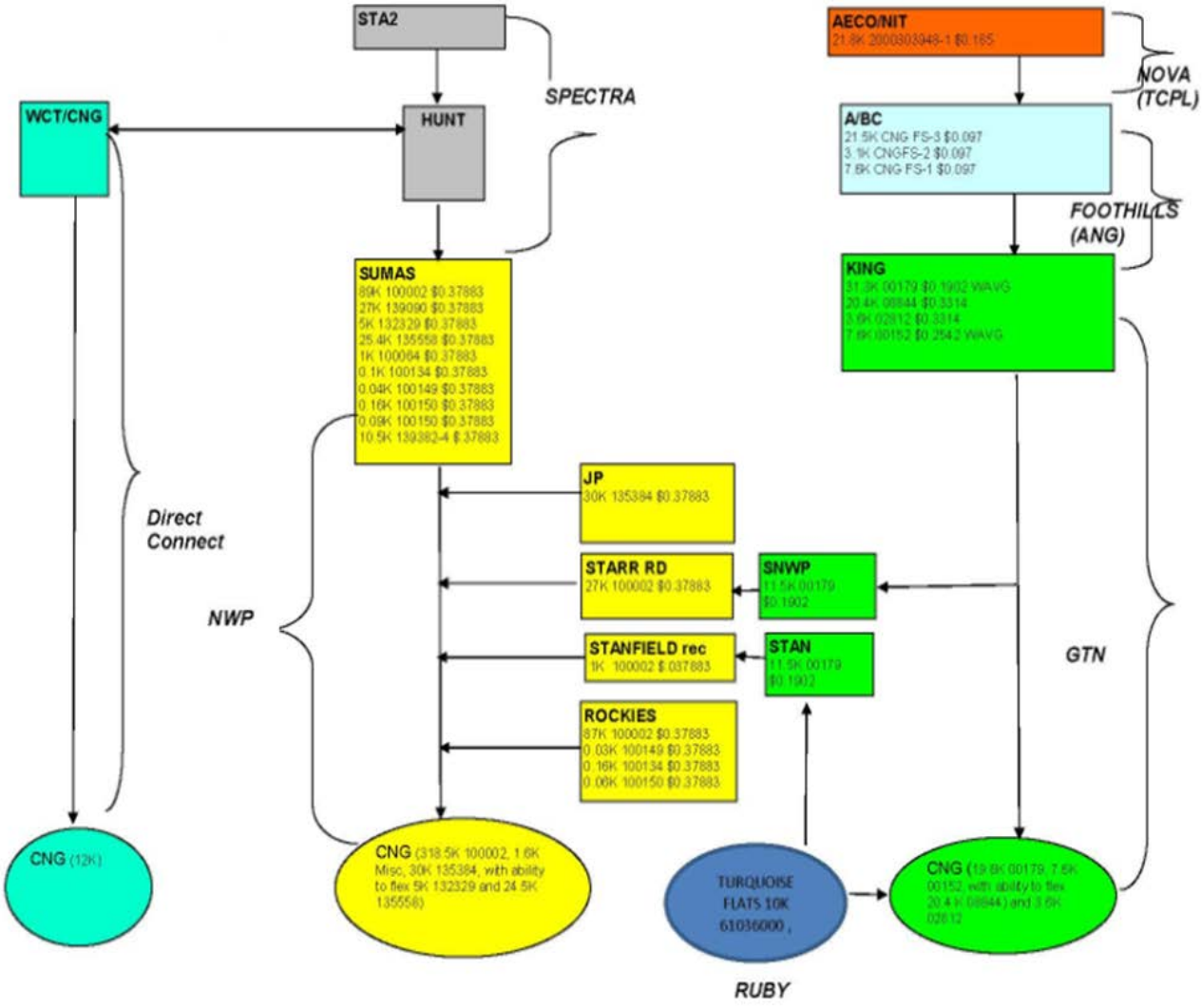
Pipeline transportation resources are utilized to transport the gas supplies from the producer/supply sources to Cascade's system. Cascade currently purchases supplies from three different regions or basins: U.S. Rockies, British Columbia, and Alberta, Canada. Unless the gas supplies have been "bundled" by the supplier, these resources require pipeline transportation to deliver them to Cascade's local distribution system.

Cascade has several long-term annual contracts with NWP, two long-term annual contracts and three long-term winter-only contracts with GTN (including the upstream capacity on Trans Canada Pipeline’s Foothills and Alberta systems), a long-term winter-only contract with Ruby Pipeline and one long-term annual contract with Spectra in British Columbia, Canada. These contracts do not include storage or other peaking services that provide additional delivery capability rights ranging from 9 to 120 days.

As noted earlier, available capacity exists on two of the three upstream pipelines serving the region: Spectra Energy’s T-South Mainline from Northeast BC to the BC-Washington Border at Sumas, and TransCanada’s GTN System that takes natural gas from Alberta at Kingsgate, Idaho and ships it to and through the region. The Company constantly reviews existing capacity options and works to negotiate contract terms that make sense for both parties, whenever we determine a project is viable.

Figure 5-B provides a schematic of Cascade's various transportation agreements, approximate contract demand (in thousands of dths) and their general flow patterns.

FIGURE 5-B



Section 5-A

Supply Side Resources Acquired Since 2010 IRP (Draft)

Transportation resources historically have been purchased from the pipeline at the time of an expansion under long-term (twenty to thirty year) contracts. As a result, the Company may find that it has capacity excess to its core market needs, especially in the early years following an expansion. Since late 1989, Cascade has, through its Optional Firm Pipeline Capacity tariffs, allowed its non-core customers to utilize Cascade's firm pipeline capacity that is excess to current core customer requirements. By accepting all of the obligations associated with the underutilized pipeline capacity, the non-core customers have relieved Cascade's core customers of the costs associated with holding the pipeline capacity for future growth.

Additionally, pipeline capacity is a tradable commodity through each pipeline's Electronic Bulletin Board (EBB). Should a utility have temporarily underutilized transportation capacity it can release that capacity to third parties. Such activities allow holders of pipeline capacity contracts to recoup a portion of the fixed costs incurred. The value of the capacity will fluctuate depending upon market conditions. Any pipeline capacity in excess of core requirements can be offered to qualified buyers. The capacity is offered to any credit-worthy market through the respective pipeline's EBB.

Cascade's utilization of pipeline transportation and peak day capacity for core and contracted for non-core firm transportation gradually changes over the planning horizon. Current company-acquired firm supplies utilize existing core firm transportation capacity. A portion of future core market growth utilizes non-core firm transportation capacity that will be converted to core market firm transportation capacity as core market growth occurs.

Package 1: Vintage NWP capacity throughout the region

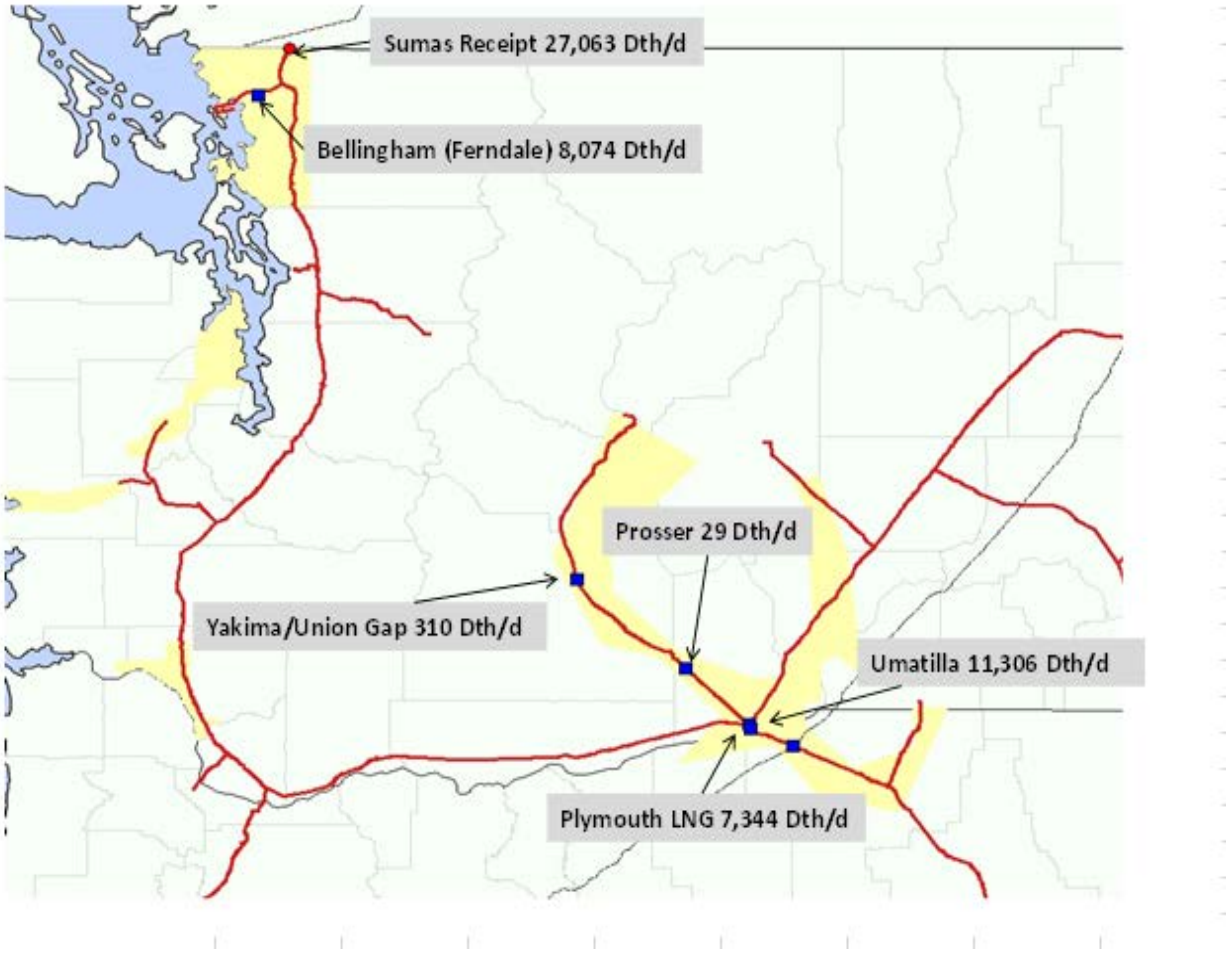
As Cascade's customer count and loads continue to grow, the Company will need to acquire additional capacity resources. In May 2011, Cascade was able to obtain vintage NWP capacity through a pre-arranged agreement with NWP that provided additional MDDOs (maximum daily delivery obligations) to several gates, including Yakima/Union Gap on the Wenatchee lateral and Bellingham/ (Ferndale) gates. This capacity (27,063 dths) became available to Cascade in April 2012. The current vintage transportation rates on NWP compared favorably to any of the other proposed pipeline projects at the time, such as the Blue Bridge/Palomar integrated project. For the past several Integrated Resource Plans, Cascade has identified the need for incremental pipeline capacity in order to meet anticipated peak day requirements for its core market as early as the 2012/2013 timeframe. Additionally, there are several locations where Cascade's design day requirements are greater than existing contracted delivery, including the Bellingham area. With the incremental capacity Cascade will have enough receipt contract rights to meet core requirements until 2023 and will provide adequate delivery MDDOs until the 2022 timeframe. This capacity is priced at current tariff rates and is less expensive than adding pipeline infrastructure.

The table below describes the capacity associated with Package 1:

TABLE 5-2: Package 1

NWP Incremental Vintage Capacity, effective 4/1/2012

Receipt Point	Delivery Pt	Del Pt Qty (Dths)
Sumas	Bellingham	8,074
Sumas	Prosser	29
Sumas	Yakima/Union Gap	310
Sumas	Umatilla	6,160
Sumas	Plymouth LNG	12,490



Package 2: Vintage NWP Capacity in the Sedro-Woolley area

In December 2011, the Company was presented with an opportunity to obtain vintage NWP capacity through a pre-arranged agreement with Northwest Pipeline that provided additional MDDOs to Sedro-Woolley, and by extension increase our firm rights in NWP Zone 30 (Cascade Zone 30-S and 30-W).

TABLE 5-3

NWP Incremental Vintage Capacity, Sedro-Woolley block

REC PT	*DEL PT*	*Dths/DAY*	*DTHS/D AND TERM*
SUMAS	SEDRO	6191	03/2012 – 10/2050
SUMAS	SEDRO	1050	04/2013 – 10/2050
SUMAS	SEDRO	3259	01/2014 – 10/2050

The pre-arranged agreement was subject to competitive bid and it was ultimately awarded based on the offer which represented the highest net present value (NPV). We believed that based on our modeling, economic feasibility of vintage vs. incremental capacity costs, proximity to our distribution system and our ongoing obligation to serve, that proposing a long-term contract through October 2050 would ensure that the agreement would be awarded to Cascade.

SUPPLMENTAL BACKGROUND AND ANALYSIS

- For the past several Integrated Resource Plans requirements are greater than existing contracted delivery in CNG Zone 30-W, particularly the Bellingham area. Cascade has identified the need for incremental pipeline capacity in order to meet anticipated peak day requirements for its core market in Whatcom County (CNG Zone 30-W) as early as the 2018 timeframe. Figure 5-C-1 provides a clear picture of the impending peak day shortfall.

- Even at maximum rate, vintage capacity is considerably less expensive than proposed pipeline expansion projects including a Palomar/Blue Bridge type of scenario, which is anticipated to be upward of $.82/dkth and is not guaranteed to be built.

- Both TransAlta and Boardman coal-fired generation plants have committed to reduce and eventually cease operation and will likely be replaced with gas fired generation, providing greater interest in the pipeline capacity, particularly if Puget determines to add to their gas fired generation in the areas to meet power shortfalls identified in their integrated resource plan.

- The proposed capacity package provides delivery to Sedro-Woolley, a point on CNG's system.

- Although this capacity will become effective prior to the actual need, NWP has not identified any plans for a future system expansion in the area; however, having this capacity would lessen the amount of incremental capacity (and

associated costs) Cascade would need to pay for to participate in a future system expansion.

- Acquiring the proposed capacity from NWP will extend our ability to meet peak day in CNG Zone 30-W to around the 2022 time frame. The combined Zone 30-S and Zone 30-W (the actual nominated zone) would have sufficient capacity to meet peak day through 2026.

- These measures are part of a larger strategy to secure NWP turned back vintage capacity acquisitions to mitigate shortfalls . Work will continue to work with NWP to re-align our contractual delivery rights (where operationally feasible) from citygates with projected excess capacity to citygates where we forecast shortfalls exist.

FIGURE 5-C-1

Before Acquiring Packages 1 and 2

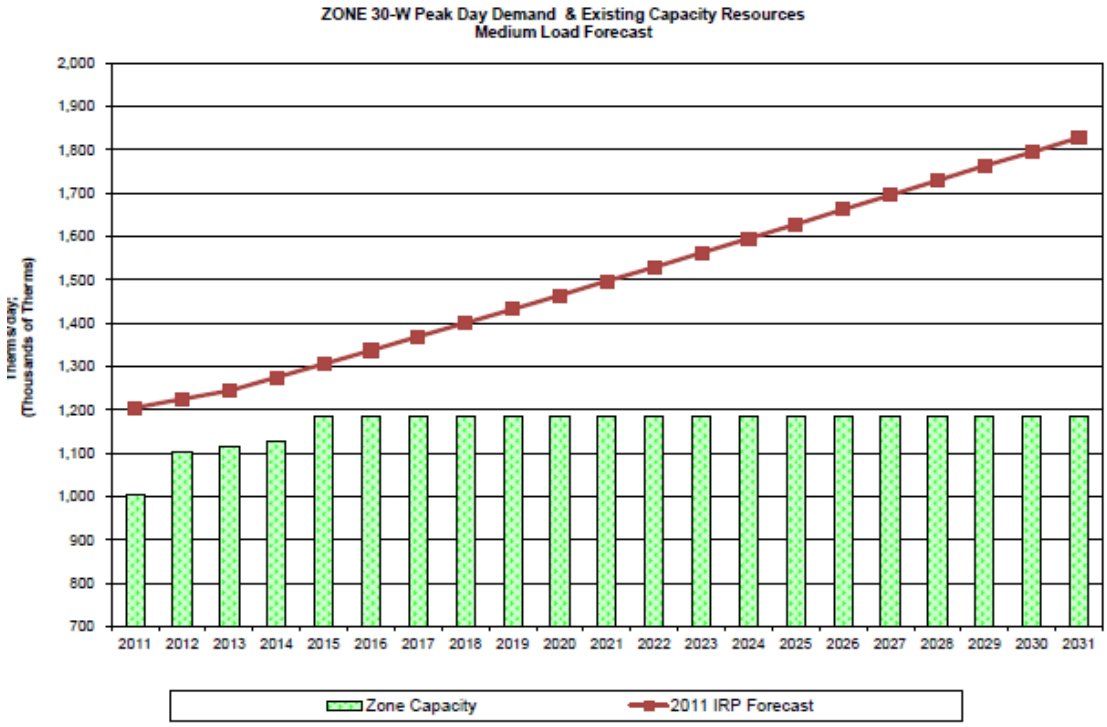
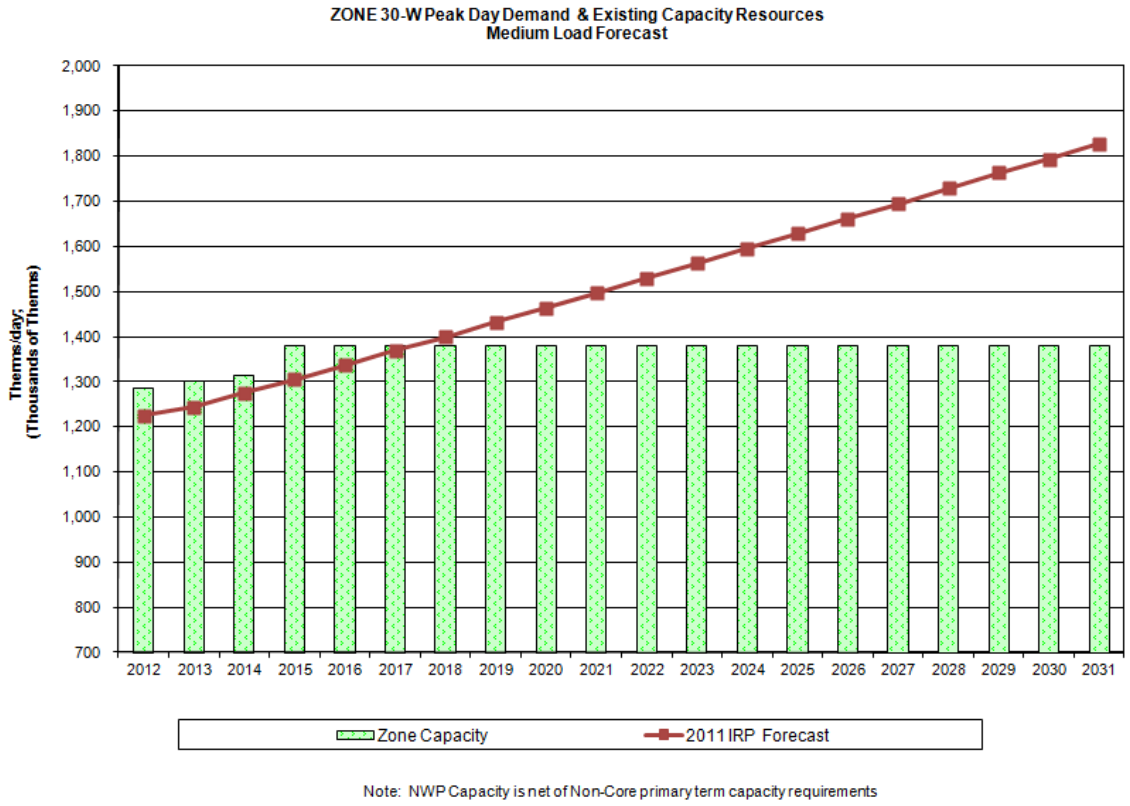


FIGURE 5-C-2

After acquiring Package 1 and 2



Package 3: Ruby Pipeline and Incremental GTN northbound firm service

On July 28, 2011, El Paso Corporation placed the Ruby Pipeline in service. Ruby is a 680-mile, 42-inch interstate natural gas pipeline, providing transportation service from Opal, Wyoming, to interconnections near Malin, Oregon. Ruby has an initial design capacity of up to 1.5 billion cubic feet per day (Bcf/d) and traverses portions of four states: Wyoming, Utah, Nevada, and Oregon. The project utilizes four compressor stations: one near the Opal Hub in southwestern Wyoming; one south of Curlew Junction, Utah; one at the mid-point of the project, north of Elko, Nevada; and one in northwestern Nevada.

Throughout 2011, Cascade worked with both existing Ruby shippers and with Ruby Pipeline to obtain discounted, long-term firm capacity on Ruby Pipeline along with the chance to acquire firm Malin north capacity on GTN through a pre-arranged agreement via Ruby that would provide the means to deliver Rockies supplies to Central Oregon, thereby increasing supply diversity and mitigating some of the negative impacts of constraints on Northwest Pipeline. Currently, gas supplies for Central Oregon are almost exclusively sourced from Alberta. While this has been a price advantage we feel it is important to have flexibility of

supply options, particularly since we may find ourselves competing for Canadian supplies that will be pulled to the exportt facility in Kitimat to serve increasing Asian demand.

Ultimately, as will be explained further, Cascade worked with Ruby to finalize a long term transportation agreement based on the following original proposal which went through several revisions due to federal regulatory concerns:

- **Term:** The term of the proposed Ruby Pipeline capacity is for 25 years, beginning as early as April 1, 2012 but no later than November 1, 2012.
- **Maximum Daily Quantity (MDQ):** November 1st - April 30th of each year: 10,000 dths/day. Ruby would also provide Cascade with an option for 20,000 Dth per day (in addition to the 10,000 Dth described above) pursuant to the same terms and conditions. The option would expire on October 31, 2014. If at any time during the option period, Ruby receives a bona fide offer from a third party to contract for the optioned capacity, Ruby would provide notice to Cascade with sixty days to exercise the option. This will be contractually structured consistent with FERC allowances.

- **Receipt Point(s):** Any Ruby interconnect at the Opal Hub, including (CIG, Overthrust, Pioneer)

- **Delivery Point:** Ruby – GTN interconnect at Malin, Oregon (Turquoise Flats)

- **Rate:** Fixed reservation rate of $ 0.75 per dth/d for the twenty-five year term, plus Ruby commodity and FERC fuel and variable charges as authorized (estimated at $0.01 and 1.5% respectively). The current recourse rate is $0.95 per dth/d. This proposal represents a 21% discount.

- **GTN Capacity:** Separate from the Cascade/Ruby capacity, Ruby has been working with GTN to contract for maximum rate firm transportation rate on GTN and compensating GTN for its capital expenditures in providing firm, northbound service. Ruby would, in turn, post on GTN's EBB a pre-arranged capacity release to Cascade with Malin northbound firm transportation capacity, subject to bid, consistent with FERC rules.

SUPPLEMENTAL BACKGROUND AND ANALYSIS for RUBY ACQUISITION

As the chart below indicates, the annual cost per unit for the Nov-Mar Ruby capacity is less than vintage year round capacity on Northwest Pipeline. Granted, Northwest Pipeline does have some capacity release value but there is intrinsic value with Ruby capacity associated with providing supply diversity for Central Oregon, plus the Ruby/GTN path will give us an alternative path for re-directing NWP Rockies gas around a Kemmerer constraint. Rockies gas originally destined for NWP could be shipped via Ruby-GTN to Stanfield where it can then flow back on NWP if needed, potentially avoiding having to sell otherwise constrained supplies at less than purchase contract terms or incur banking or penalty charges.

TABLE 5-4

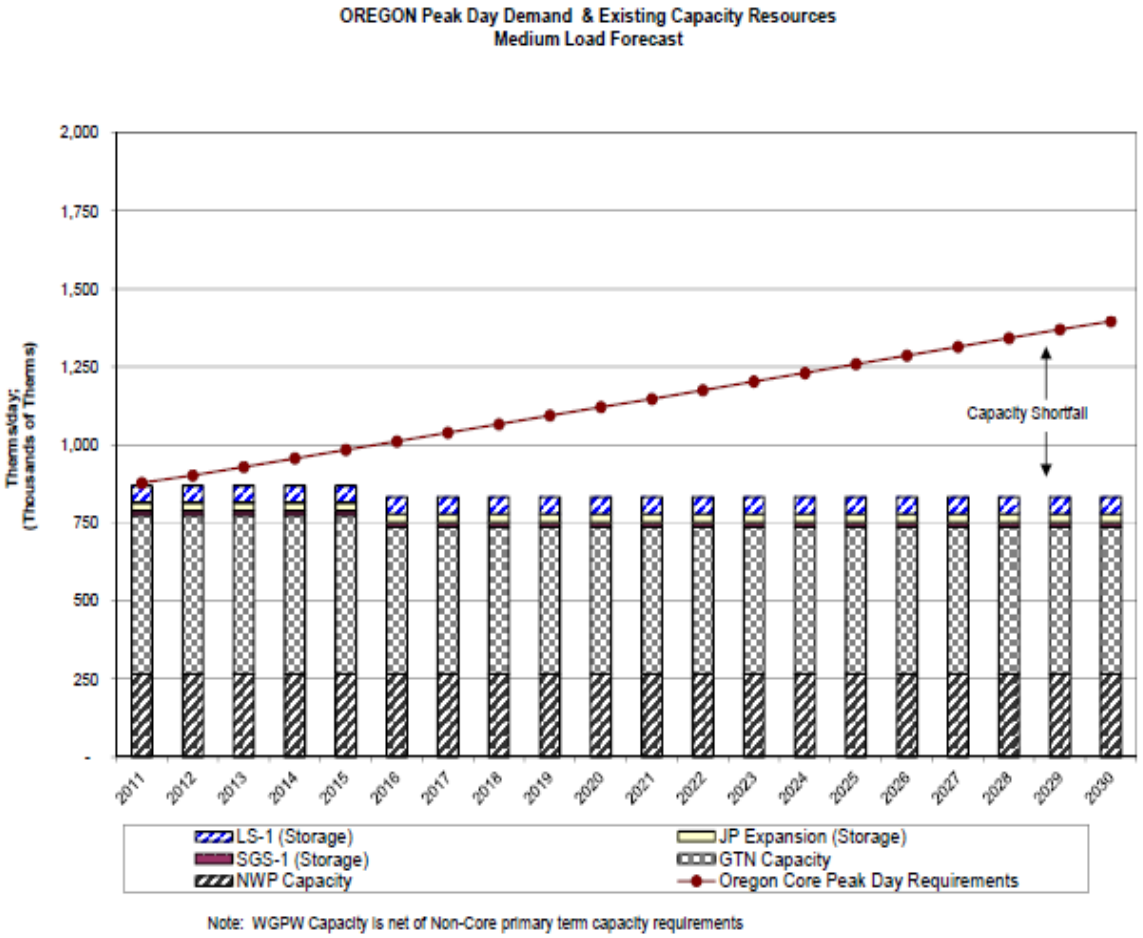
Ruby vs Vintage NWP annualized capacity costs

Category	Rate, per dth	Days in Year	Annual Cost
Vintage NWP	$ 0.3879	365	$ 141.58
Discounted Annual Ruby	$ 0.7600	365	$ 277.40
Winter Only (Nov-Apr)	$ 0.7600	181	$ 137.56

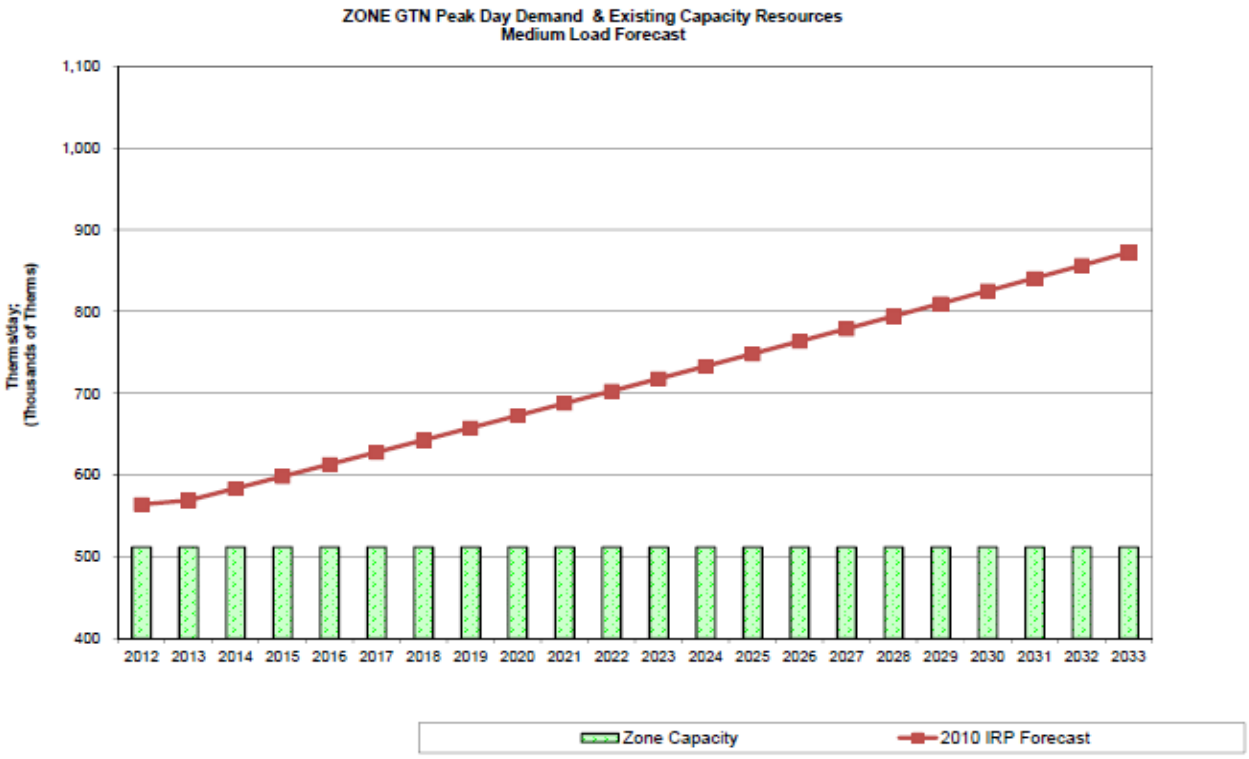
At the time the Company began to seriously consider Ruby, the proposed Blue Bridge and Palomar pipelines which would also bring Rockies gas to the Pacific Northwest were put on hold by their respective owners and as of this writing it is questionable as to whether they will be built. In addition, these options have projected rates that exceed $0.80/dth.

As indicated earlier during this time the Company was also in discussions to acquire multi-year (up to ten) capacity releases from existing Ruby shippers; however, none of the parties we worked with were able to match the discount being proposed by Ruby. In fact, most of the parties we spoke with initially did not offer a discount; and when they did the discounts were typically less 10% versus the recourse rate ($0.95). Additionally, none of these parties had or were seeking to obtain firm primary northbound service on GTN. From the Company's perspective under current resource planning guidelines we could only use the current GTN backhaul as a secondary service; it couldn't be used for peak day planning in the IRP. However, if Ruby was successful in acquiring the GTN northbound capacity and we acquired it via GTN's EBB, then the Ruby/GTN capacity would form a needed primary firm resource for regular use as well as for peak day.

As the following chart shows, Oregon faces sizeable capacity shortfalls on peak day in the long-term. Short-term, we have been and plan on continuing to meet these needs via citygate supplies, which do not require Cascade to pick up additional capacity. Additionally, since GTN is still experiencing continued de-contracting, it is likely that there will be available capacity available on GTN for short term capacity releases. While this is fine for the short-term, we will need to consider acquiring additional resources to meet peak day. The portions of Oregon served by NWP (Zone 24 and Zone ME-OR) have sufficient long-term capacity through 2026.



However, as can be seen on the following chart, the GTN zone, which is primarily supported by Alberta sourced supplies, is significantly short. Therefore, not only will acquiring Ruby bring supply diversity to supplement what is purchased from Alberta, having Ruby acquire firm northbound GTN capacity and releasing it to Cascade will help us meet our long-term incremental need for capacity. It should also be noted that our modeling and discussions with stakeholders have recognized that Cascade needs more storage to serve Oregon. One possible source of storage Cascade will consider as a result of having Ruby capacity is Ryckman Creek storage at the Opal Hub, which will connect to Ruby and other Rocky Mountain area pipelines, thereby giving Cascade a possible storage source to meet Oregon load, as well as price arbitrage to the benefit of all ratepayers.



Modeling for Ruby Pipeline and Incremental GTN northbound firm service

Described below is additional information regarding these two alternative resources. Utilizing the SENDOUT™ resource optimization model, several scenarios were run to test the viability of acquiring Ruby capacity either based on their proposal, or through a third party. Incremental and corresponding GTN Malin north capacity was also modeled. At the time of the modeling last year basin prices in the model over the 20 year planning horizon had Rockies trading at a slight discount to AECO, Malin and Sumas ($0.06 - $0.15). This relatively inexpensive Rockies supply coupled with discounted Ruby capacity utilizing existing secondary GTN backhaul capability proved to be attractive to SENDOUT.

Regardless of the scenarios modeled, SENDOUT™ consistently selected Ruby capacity in a range of 10,000 to approximately 19,000 dths/day. A recap of some of the scenarios run and the results follows:

Summary of SENDOUT™ results for Ruby and Incremental GTN northbound firm service

SCENARIO (Description of the terms, conditions, pricing, etc)	*RESULTS*	*ADDITIONAL COMMENTS*
RUBY DISCOUNTED PROPOSAL WITHOUT DISCOUNTED GTN BACKHAUL Ruby Transport: 25 years, Seasonal (Nov-Mar),$0.75 reservation, $0.01 commodity, 1.5% Fuel, no limit MDQ, allow resizing every year after Oct13: GTN backhaul at current recourse rate (approx $0.26)	SENDOUT™ selected 17.26 MDth/day Nov12-Oct13 and 17 MDth of GTN backhaul	This is the ORINGAL Ruby deal without taking into account discounted GTN backhaul, or comparisons to a shorter term Ruby capacity release.
RUBY PROPOSAL AT RECOURSE VS RUBY DISCOUNTED CAP REL Ruby Transport: 25 years, Seasonal (Nov-Mar),$0.95 reservation (recourse rate), $0.01 commodity, 1.5% Fuel, no limit on MDQ, allow resizing every year after Oct13 Vs Ruby Cap Release: 10 years, Annual release from 3rd party,$0.69(discounted) reservation, $0.01 commodity, 1.5% Fuel, 10,000 dth MDQ	SENDOUT™ selected 10 MDth of 3rd party capacity release and 7.45MDth/d of the Ruby proposal and 17.19 MDth of GTN backhaul	Even at the recourse rate, SENDOUT™ selects a substantial portion of Ruby on a seasonal basis
Ruby Transport: 25 years, Seasonal (Nov-Mar),$0.75 reservation, $0.01 commodity, 1.5% Fuel, no limit on MDQ, allow resizing every year after Oct13 Vs: Ruby Cap Release: 10 years, Annual release from 3rd party,$0.75 reservation, $0.01 commodity, 1.5% Fuel, 10,000 dth MDQ	SENDOUT™ selected 10 MDth of 3rd party capacity release and 7.26 MDth/d of the Ruby proposal and 17 MDth of GTN backhaul	
25 YR RUBY DISCOUNTED PROPOSAL VS 25 YR ANNUAL CAP REL VS 10 YR CAP REL Ruby Transport: 25 years, Seasonal (Nov-Mar),$0.75 reservation, $0.01 commodity, 1.5% Fuel, no limit on MDQ, allow resizing every year after Oct13 vs. Ruby Cap Release Annual: 25 years, Annual release from 3rd party,$0.75 reservation, $0.01 commodity, 1.5% Fuel, 10,000 dth MDQ vs. Ruby Cap Release: 10 years, Annual release from 3rd party,$0.75 reservation, $0.01 commodity, 1.5% Fuel, 10,000 dth MDQ	SENDOUT™ selected 10 MDth of 3rd party capacity release and 7.45MDth/d of the Ruby proposal and 17.19 MDth of GTN backhaul	

RUBY DISOUNTED PROPOSAL VS STEEP DISCOUNT RUBY CAP REL Ruby Transport: 25 years, Seasonal (Nov-Mar),$0.75 reservation, $0.01 commodity, 1.5% Fuel, no limit on MDQ, allow resizing every year after Oct13 Vs. Ruby Cap Release: 10 years, Annual release from 3rd party,$0.57(40% discount of recourse rate of $0.95) reservation, $0.01 commodity, 1.5% Fuel, 10,000 dth MDQ	SENDOUT™ selected 10 MDth of 3rd party capacity release and 7.26MDth/d of the Ruby proposal and 17 MDth of GTN backhaul	
RUBY DISCOUNTED PROPSAL WITH DISCOUNTED GTN VS STEEP DISCOUNT RUBY CAP RELEASE Ruby Transport: 25 years, Seasonal (Nov-Mar), $0.75 reservation, less $0.06 through March 2017 to represent the 80% discounted GTN northbound capacity that Ruby has offered to acquire and then re-release to Cascade for approximately 4 years. Per Ruby email 11/15/2011: ***If the delivery point is Stanfield, assume a ~ $0.20 rate (depends on points selected), with a 10,000 Dthd MDQ. Therefore $ 3,200,000 / $0.20 /10,000 = 1,600 days of FTSA. 1,600 / 365= 4.38 years of discounted GTN capacity***, model assumes GTN northbound returns to recourse levels after 2017, $0.01 commodity, 1.5% Fuel, MDQ limited to 10 MDTh/day vs. Ruby Cap Release: 10 years, Annual release from 3rd party,$0.57(40% discount of recourse rate of $0.95) reservation, $0.01 commodity, 1.5% Fuel, 10,000 dth MDQ	SENDOUT™ selected 8.84 MDth of 3rd party capacity release and 10MDth/d of the Ruby proposal and 18.56 MDth of GTN backhaul	This scenario mimics the current Ruby proposal against a steeply discounted yearly capacity release from a 3rd party.

Ultimately, FERC Commission issued an order accepting (subject to conditions) Ruby's Non-Conforming Transportation Service Agreement with Cascade. In its order, the Commission noted three areas of concern in the Cascade TSA that would require compliance by Ruby within 30 days.

Seasonal Service – Commission stated that Ruby's Rate Schedule FT and pro forma agreement do not expressly provide shippers with the option to have contracts with seasonal contract demands. To give Cascade alone this option "constitutes a substantial risk of undue discrimination."

> *"[t]he Commission will accept the agreement subject to the condition that Ruby, within 30 days of this letter order, either eliminate the provision granting seasonal service, or revise its Rate Schedule FT and pro forma service agreement to clarify that this seasonal variation in maximum daily quantity is part of the recourse service available to all shippers taking service under the rate schedule."*

Varying MDQ – The Commission stated that the option to vary the MDQ of an agreement (outside the stated tariff procedures) is a right that is not currently provided by Ruby's Tariff to all customers. This constitutes a "substantial risk of undue discrimination."

> *"[t]he Commission will accept the agreement subject to the condition that Ruby eliminate the provision providing Cascade the option to increase its MDQ from the agreement, within 30 days of this letter order."*

Third-Party Capacity/Capacity Release – Commission noted that Ruby would release the acquired capacity to Cascade pursuant to the provisions of GTN's Tariff…"This appears to contravene both Commission policy as well as Ruby's tariff. If Ruby intends to acquire downstream capacity for Cascade on GTN that capacity must be made available to Cascade through Ruby's existing tariff mechanism."

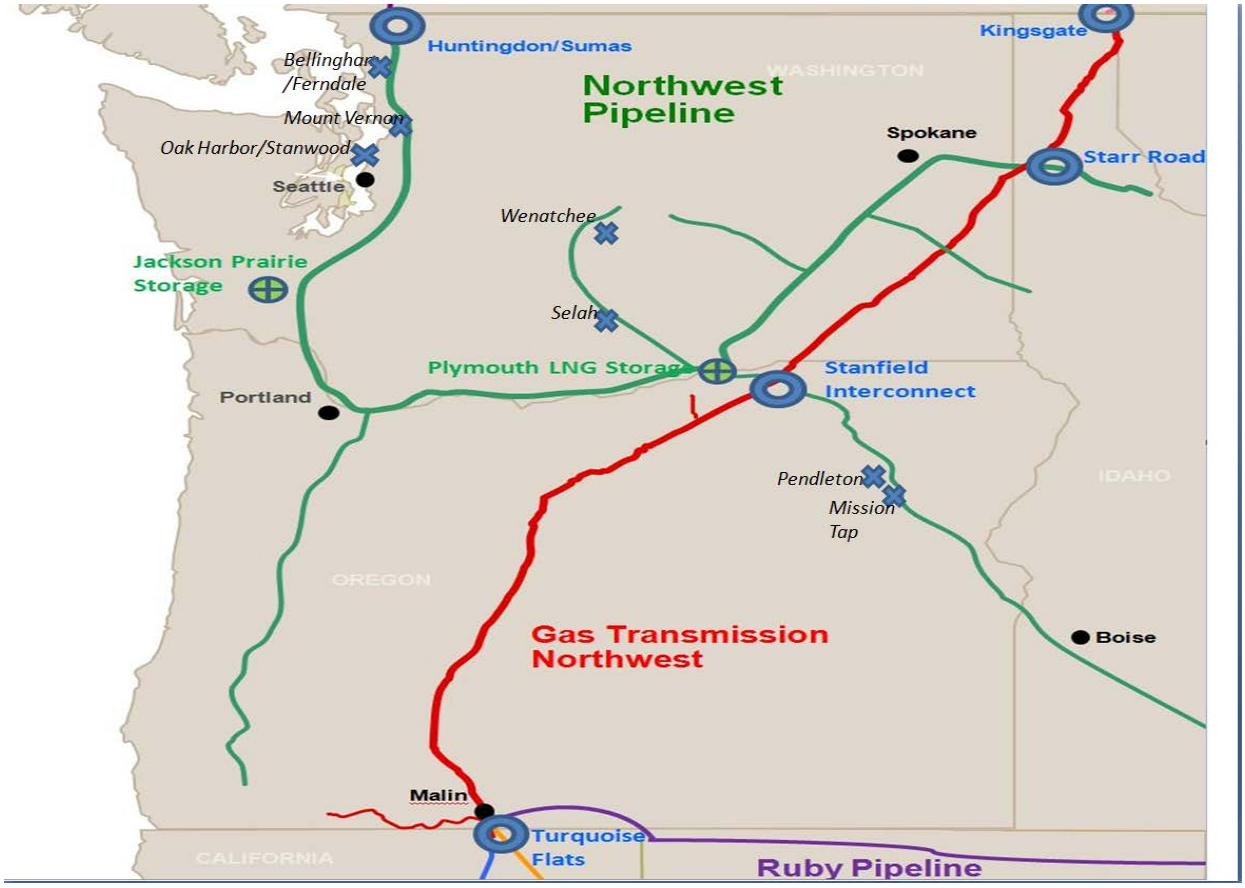
> *"Ruby is directed to revise section 17 of the service agreement such that any capacity purchased on GTN may be made available to Cascade"*

All the parties worked collectively to determine the best way forward. In the end, Ruby filed a winter service tariff, the option to increase the MDQ was removed, and a non-regulated entity of Ruby acquired the GTN capacity which was ultimately awarded to Cascade. The terms of the GTN backhaul are described in Package 5 below. Please note this discounted capacity was subject to bid, but no party opted to "bid up" the offer.

Package 4: GTN backhaul capacity release

ITEM	RESPONSE
Releasing Shipper	El Paso Ruby Holding Company, LLC
Replacement Shipper	Cascade Natural Gas
Type	Biddable
GTN Receipt Point	Turquoise Flats (near Malin)
GTN Delivery Point	Stanfield Interconnect
Quantity	10,000 dths/day
Contract Type	Annual
Maximum Tariff Rate	$0.204766 (reservation components only)
Minimum Bid Rate	80% of maximum tariff rate
Effective Date	November 1, 2012
Termination Date	March 31, 2018

Package 5: PSE and CNGC deal for Jackson Prairie/Wenatchee



The development of this package goes back several years.

The Wenatchee Lateral is a NWP lateral pipeline connected to their mainline at the south-central Washington Plymouth LNG facility near the Washington Oregon border and running approximately 120 miles up the Yakima Valley to the city of Wenatchee. The lateral is divided into two nomination zones; zone 10 and zone 11. Cascade serves Prosser, Grandview, Sunnyside, Zillah and Toppenish in Zone 10. In Zone 11, Cascade serves Moxee City, Yakima, Selah, Quincy, Wenatchee and East Wenatchee. The City of Ellensburg is also a firm shipper on Northwest located and is in Zone 11. PSE's service to Cle Elum and the Suncadia resort is also transported on the Wenatchee Lateral Zone 11 but PSE does not have any firm capacity rights on the lateral.

The peak day capacity of the Wenatchee Lateral is insufficient to provide firm service to all of Cascade's core and noncore customers. The majority of the non-core customers located along the lateral relies upon pipeline capacity that is flexed to the city gate serving their plant location. For example, NWP will accept a flexed nomination only if the primary firm capacity held by Cascade and the City of Ellensburg is not being fully utilized. Tree Top, Alcoa and a few other non-core customers have or had access to firm pipeline

capacity on the lateral through Cascade's Optional Firm Pipeline Capacity Service Schedule 685. Cascade has the right to pull back the capacity upon the expiration of the primary term and has either pulled back the capacity or has provided notice to the customer that Cascade will pull back the capacity at the end of the contract.

Upon the total recall of the capacity, Cascade will have sufficient capacity to serve all firm core customer growth on the Wenatchee Lateral for several more years, likely through 2023. However, a few non-core customers had hoped to secure firm capacity beyond the expiration of their contract with Cascade and asked Cascade to explore with them the various options to expand peak day capacity on the lateral. The City of Ellensburg also projected the need for additional capacity in the future as growth occurred. PSE also was interested in obtaining firm capacity for the current and future needs of the Cle Elum/Suncadia service area. As a group, we explored various scenarios of pipeline looping and added compression to increase Northwest's available Wenatchee Lateral capacity. Northwest's estimated costs and rates for these scenarios all were too expensive for the group to want to pursue.

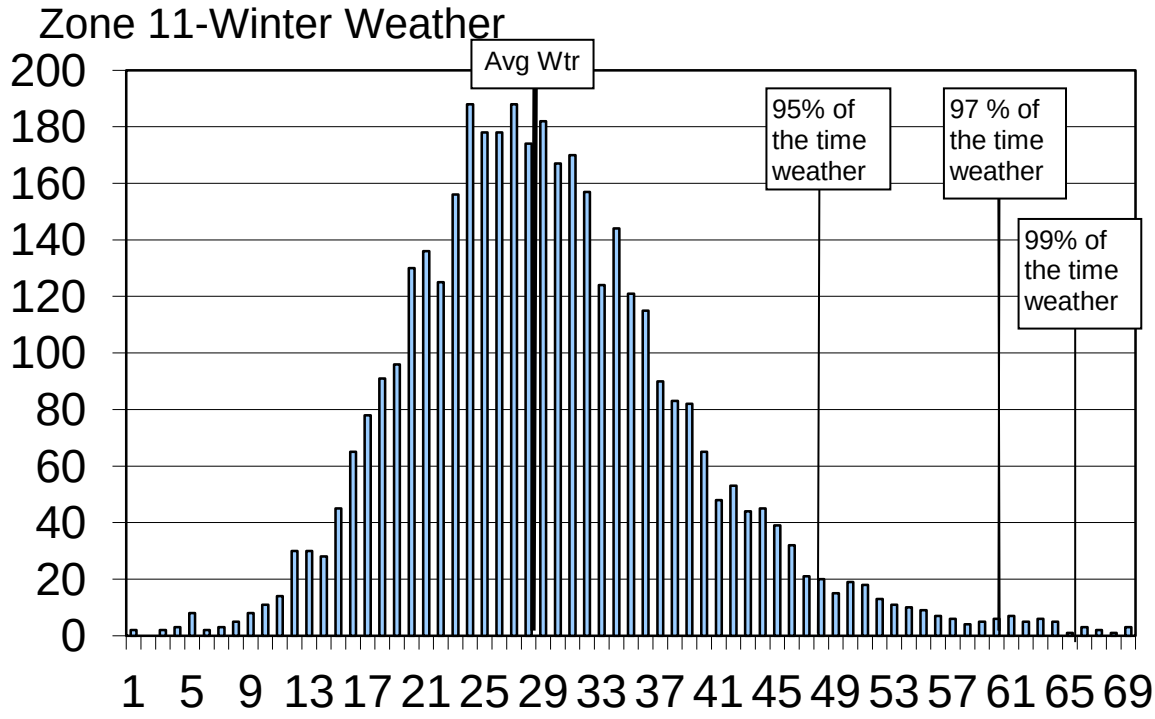
After exhausting pipeline looping and compression alternatives, the group explored various scenarios of LNG peak shaving. We examined the possibility of a single LNG facility located a various different points along the Wenatchee Lateral. We examined two smaller LNG satellites located at Yakima and Ellensburg. We examined three smaller satellites located at Wenatchee, Yakima and Ellensburg. The estimated costs and rates for these LNG scenarios all were also too expensive for the group to want to pursue.

Lastly, the group examined propane-air peaking facilities as a solution for the capacity constraint. We examined the possibility of a single propane-air peaking facility located at various different points along the Wenatchee Lateral. We examined two smaller propane-air facilities located at Yakima and Ellensburg. We examined three smaller propane-air facilities located at Wenatchee, Yakima and Ellensburg. We also examined locating five propane-air facilities located at various sites along the lateral. Although the cost of 5 propane-air facilities was clearly the lowest cost option, a few non-core customers decided that they would rather become an interruptible customer instead. The City of Ellensburg decided that they did not need any incremental capacity.

With the expiration of two non-core customer capacity agreements, Cascade would not need any incremental capacity for ten to fifteen years, depending upon actual growth in core demand. Only PSE, who has zero firm capacity on the lateral currently, is still interested in somehow obtaining firm capacity. Without any natural gas to mix with the propane on a peak day, a propane-air facility solution would not be particle.

Additional background and analysis

- Estimated 2011 Core Peak requirements were estimated at 36,700 dkth on a 67DD, with core growth on the lateral estimated at approximately 1%/year.
- Based on 2010 IRP load forecast, Cascade has adequate capacity on Wenatchee lateral through 2015.
- Each drop in HDD, reduces the estimated core requirements by 510 dth. Even with release to PSE through 2019 we would be able to meet core load requirements without peak shaving, providing it is warmer than 60DDs (97%)



- The arrangement with PSE would provide incremental delivery MDDOs to Bellingham, an area where we currently are forecasted to be short (contractually) by approximately 20,000 dths on peak delivery.

- The arrangement provides for additional storage—at the time this transaction was being considered Cascade had 904,000 dths annual inventory and roughly 47,000 dths withdrawal capability (excluding Plymouth LS service). This represents approximately 3% of annual core load and about 13% of peak day requirements.

    - Jackson Prairie is one of the more flexible storage facilities which allows for frequent injections/withdrawals.
    - The arrangement involves obtaining vintage Jackson Prairie, which is less expensive than recent Jackson Prairie expansion capacity
    - The proposed arrangement would increase the annual inventory to approximately 17% of peak requirements and 4% of annual throughput

The Proposed Solution

PSE offered to release some of their excess Jackson Prairie underground storage capacity if Cascade would agree to release to PSE a portion of Wenatchee Lateral capacity. It is the perspective of both companies that any contract was freely negotiated between two LDC market participants seeking to reliably serve their respective retail customers

Therefore PSE and Cascade agreed that:

Cascade needs additional peak-season storage and firm capacity to serve its growing market in the Bellingham, WA area

- *Cascade holds firm year-round pipeline capacity to and on NWP's constrained Wenatchee Lateral*
    - *Due to permanent loss of certain industrial loads Cascade has determined that some of this capacity is surplus to its long-term needs*
    - *Due to slower than expected load growth Cascade has determined some of the capacity is surplus to our short-term needs*

PSE needs year-round firm pipeline capacity on NWP's constrained Wenatchee Lateral to reliably serve Kittitas portion of its distribution system

- *PSE holds (under separate contracts) firm storage service and seasonal firm transportation service to Bellingham area and has determined that portions of these contracts are surplus either on a short-term or long-term basis*
    - *Due to slower than expected load-growth PSE has determined some firm storage service is surplus to its needs*
    - *The seasonal firm transportation service from Jackson Prairie to Bellingham was originally acquired to deliver storage gas to PSE's combined cycle combustion turbine connected to the Cascade's system, but can be served with other capacity held be PSE*

Cascade and PSE were prepared to make both permanent and temporary, pre-arranged capacity releases to the other at the maximum rate; the non-biddable releases would be posted on NWP's EBB with no other conditions

PSE would permanently release at maximum rate: 102,782 Dth of storage capacity and the associated 3,500 Dth/day deliverability of NWP SGS-2 storage service at Jackson Prairie and 3,500 Dth/day of NWP TF-2 transportation service from Jackson Prairie to Bellingham to Cascade, as a pre-arranged shipper (2012)

> *And temporarily release, with recall provisions, at maximum rate: 178,460 Dth of storage capacity and the associated 6,077 Dth/day deliverability of NWP SGS-2 storage service at Jackson Prairie and 6,077 Dth/day of NWP TF-2 transportation service from Jackson Prairie to Bellingham to CNGC, as pre-arranged shipper (2012 to 2020, with recall rights commencing in 2015)*

Cascade would permanently release at maximum rate: 1,000 Dth/day of NWP TF-1 transportation service from Sumas and Opal to Wenatchee to PSE, as pre-arranged shipper (2012)

And temporarily release, with recall provisions, at maximum rate: 2,000 Dth/day of NWP TF-1 transportation service from Sumas and Opal to Wenatchee to PSE, as pre-arranged shipper (2012 to 2020, recall rights commence in 2015)

Cascade and PSE executed a contract which:

- required each party to release specified amount of capacity on a prescribed date
- required capacity to be released through NWP's EBB
- required permanent and temporary, recallable releases to pre-arranged shipper at maximum rate
- specified a "then current" market price for purchase of any remaining storage inventory at time of release and recall
- defined damages to each party for breach of agreement
- ***all subject to receipt of an acceptable response from FERC Staff to the No Action Letter request***

As stated above, each capacity release in this arrangement would be executed through the NWP's EBB as a prearranged release with no other conditions. The idea is that capacity will then be held by the party that values it most and will be at the maximum recourse rate. Neither party would pay more than the maximum rate for the capacity it obtains for the other party. Additionally, neither Cascade nor PSE exchanged cash or any other consideration to consummate the capacity releases (except for any storage inventory at "then current" market price, if applicable. Finally, NWP wouldl continue to receive maximum recourse rate, so they are not harmed.

Although Order No. 636-A includes a broad prohibition on tying a capacity release to other extraneous conditions, we felt the transactions described did not violate the prohibition.

- Goal to protect gas purchasers who sought a competitive gas market by preventing shippers from obtaining market advantages by tying capacity release to the purchase or sale of gas or other services
- Proposed transactions do not implicate circumstances the prohibition on tying is intended to prevent

The only potential extraneous condition is the mutuality of the desired releases between PSE and Cascade. Consequently, we decided to seek confirmation from FERC Staff that the transactions would not result in recommendation of enforcement action. PSE and Cascade personnel met with FERC staff who issued a No Action Letter, clearing the way for Cascade and PSE to complete the arrangement.

Package 6: Increased Wenatchee capacity and extension of 100002

In August Cascade had an opportunity to obtain vintage long-term firm capacity on Northwest Pipeline along with the ability to extend the term of our principle NWP transport

agreement through 2032. The extension of our principle agreement, which is set to expire in 2021, will ensure that our core customers will continue to have their major upstream delivery resource for an additional twelve years without incurring the costs associated with a significant pipeline expansion. This transaction also represented an opportunity to address shortfalls in Zones 11 (Wenatchee) and 30 (Bellingham) , plus acquire capacity that could be segmented and re-aligned to other points along our distribution system. Total Gas Costs of the incremental capacity, based on current estimates (excluding amortization and without revenue sensitive costs), would increase approximately $0.00619 per therm in Oregon and $0.0007 per therm in Washington per year. NWP has no plans to offer a pipeline guaranteed expansion in our critical need areas in the foreseeable future, but even if they did the costs associated with such a project would likely be close to triple the current tariff rate.

Extension of the Base 100002 contract

Cascade's primary NWP transport contract, 100002 has a primary end date of April 30th, 2020. By negotiating a contract extension through October 31, 2032, we will be able to realign our Maximum Daily Delivery Obligations (MDDO's) to delivery points that better meet our customer's projected needs provided the MDDOs are: (1) to delivery points with posted available capacity within the same zone and to a point already existing on this Agreement; and (2) not in violation with NWP's *New Contract Prohibition* as contained in the Settlement Agreement for Reduction in Displacement Reliance, dated May 1, 2001, and the Settlement Agreement for Reduction in Displacement Reliance Through the Columbia River Gorge Corridor, dated July 27, 2001.

Additional Zone 30 & 11 Capacity:

As part of this negotiation we acquired an additional 7,241 Dth/day of Sumas receipt with deliveries of 2,500 Dth/day to Zone 30 and 4,741 Dth/day to Zone 11. Cascade has until the term start date of January 1, 2013 to determine the specific delivery points on this additional capacity. Most importantly, we have negotiated the flexibility of moving 3,320 Dth/day in MDDO's from Wenatchee to the Selah delivery point. In doing so, NWP will allow us a gain in operational efficiency of an additional 1,421 Dth/day in MDDO's at Selah to more effectively cover projected shortfalls at the Yakima/Selah gates along the Wenatchee lateral.

	Contract Demand Pro Rata to MDDOs	2011 IRP Peak Day	2021 IRP Peak Day	2032 IRP Peak Day	2011 IRP Over / (Under) Subscribed	2012 IRP Over / (Under) Subscribed	2032 IRP Over / (Under) Subscribed
Total Zone 30	123,768	130,893	163,479	189,121	(7,125)	(39,711)	(65,353)
Total Zone 26	22,270	12,500	13,747	14,236	9,770	8,523	8,034
Total Zone 10	12,940	10,541	10,786	10,880	2,399	2,154	2,060
Total Zone 11	26,946	35,558	37,540	35,933	(8,612)	(10,594)	(8,987)
Total Zone 20	55,558	43,674	61,787	71,521	11,884	(6,229)	(15,963)
Total Zone ME	65,472	32,824	37,520	37,389	32,648	27,952	28,083
Total Zone 24	11,710	8,082	7,791	7,906	3,628	3,919	3,804
Total MDDOs	322,518	274,073	332,649	366,985	48,445	(10,131)	(44,467)

Additional Stanfield Capacity:

As part of this negotiation we acquired 7,450 Dth/day of Stanfield South capacity beginning September 1st, 2012 with deliveries to Zone 24. We will also retain some additional flexibility to further realign MDDO's prior to April 30, 2020. As part of this arrangement, NWP will also provide segmentation rights totaling 15,697 Dth/day of Stanfield receipt and 12,970 Dth/day of Stanfield delivery point capacity which will add further value to the overall package.

As part of NWP's contract extension tariff, the additional capacity above will be under the 100002 contract (TF-1) without contract specific OFO requirements or NWP having to place it out for competitive bid.

Other Resource Options

Some of the growth will require Cascade to look at alternatives to pipeline mainline capacity such as LNG satellite facilities located near or within the Company's distribution system. The Company is continuing to study the viability of LNG satellite facilities to meet these needs.

The Wenatchee lateral is an example where an LNG satellite facility may be more cost effective than the traditional solution of pipeline expansion for solving the upcoming capacity constraints on the lateral. Preliminary cost studies indicate that an LNG satellite facility solution may be 1/3 to 1/2 the cost of a pipeline expansion project that would provide the same peak day incremental capacity.

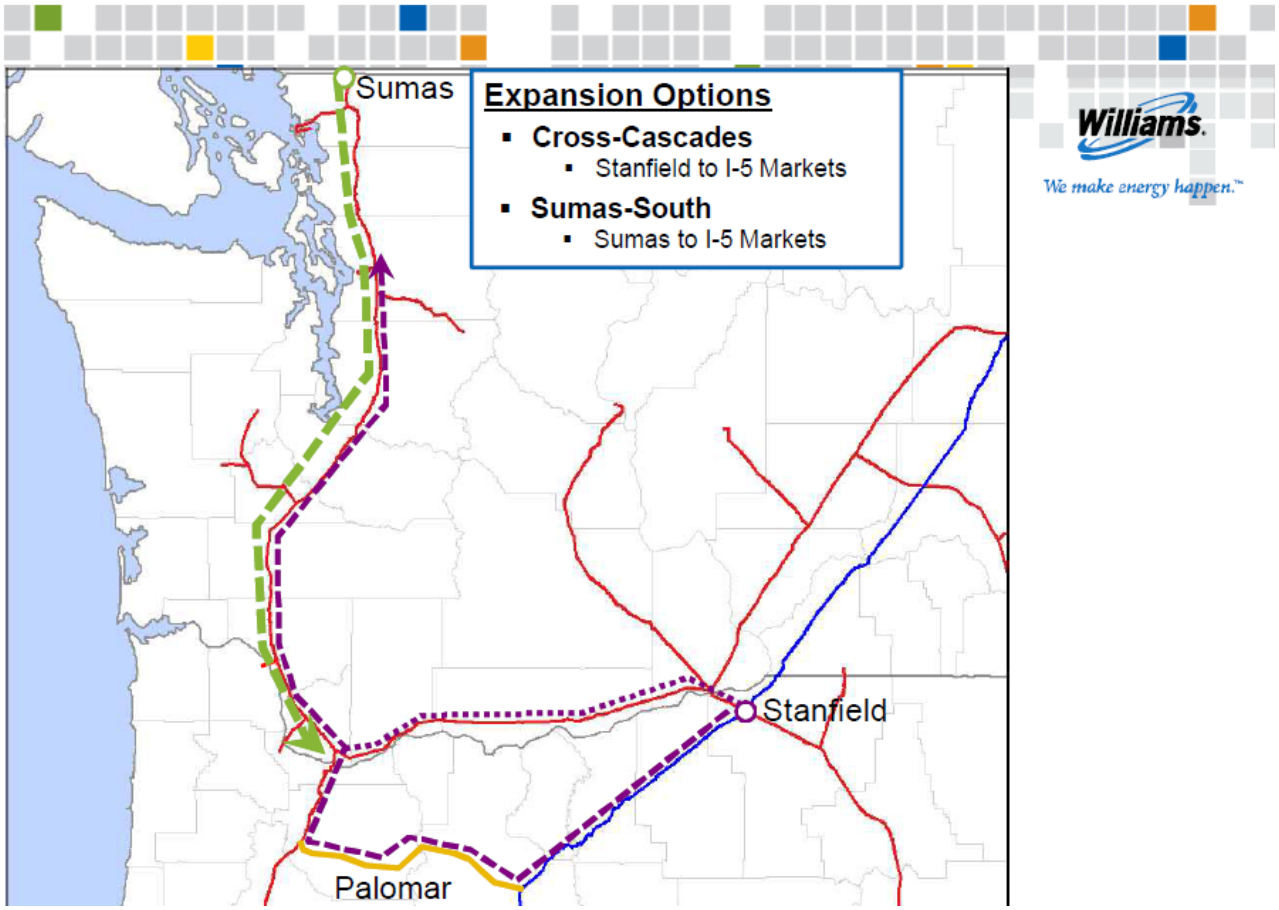
Additionally, the historic load growth the Company enjoyed throughout much of its service areas has begun to create the need to increase the physical capabilities of some of the pipeline's citygates. Even though Cascade may have an adequate amount of transportation

capacity available on the pipeline, we may not have the contractual or physical capabilities at the citygate to meet the incremental load requirements. LNG satellite facilities or trucked in LNG re-gasification facilities or other similar type solutions may provide lower cost alternatives to the cost of city gate rebuilding projects. The Company will continue to study the viability of these alternatives.

Appendix E provides a summary of current and potential capacity resources evaluated during this planning cycle.

Proposed and New Pipelines

Additionally, several pipeline projects have been proposed by a variety of developers to serve the region.



Northwest Market Area Expansion (N-MAX) and Washington Expansion

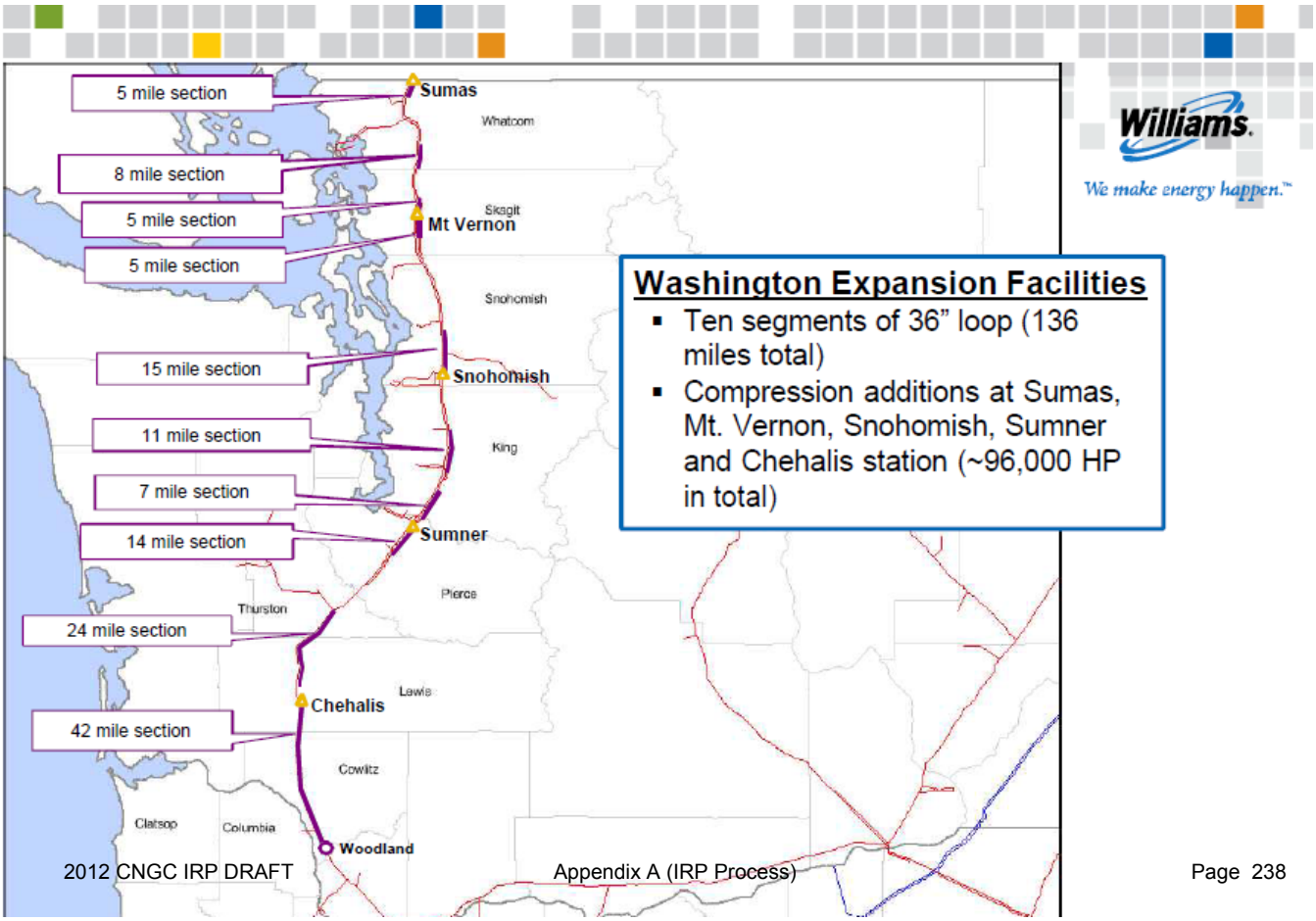
NWP has been working with the partners of Palomar Pipeline (NW Natural and TransCanada) to provide an expansion option from Stanfield, Oregon to markets along the I-5 corridor. Essentially would create an "Oregon Hub" via a Transportation by Other (TBO) process using vintage NWP capacity across the Columbia Gorge combined with vintage GTN capacity from Stanfield to Madras, then using Palomar capacity from Madras

to Molalla tied to NWP expansion capacity up the I-5 Corridor in Washington.

Similar to another regional solution proposed a few years ago, NWP is looking to combine available GTN capacity with Palomar (from Madras, west) along with an I-5 Expansion to near Mount Vernon. NWP is still in the development stages and has not finalized the expansion scenarios or developed the rates. NWP anticipates holding an Open Season in early 2013, with service expected in 2018. We anticipate that along the proposed path there may be an opportunity for Cascade to pick up additional capacity to address our projected shortfalls in the in the Bend, Oregon and Bellingham, Washington areas.

Washington Expansion

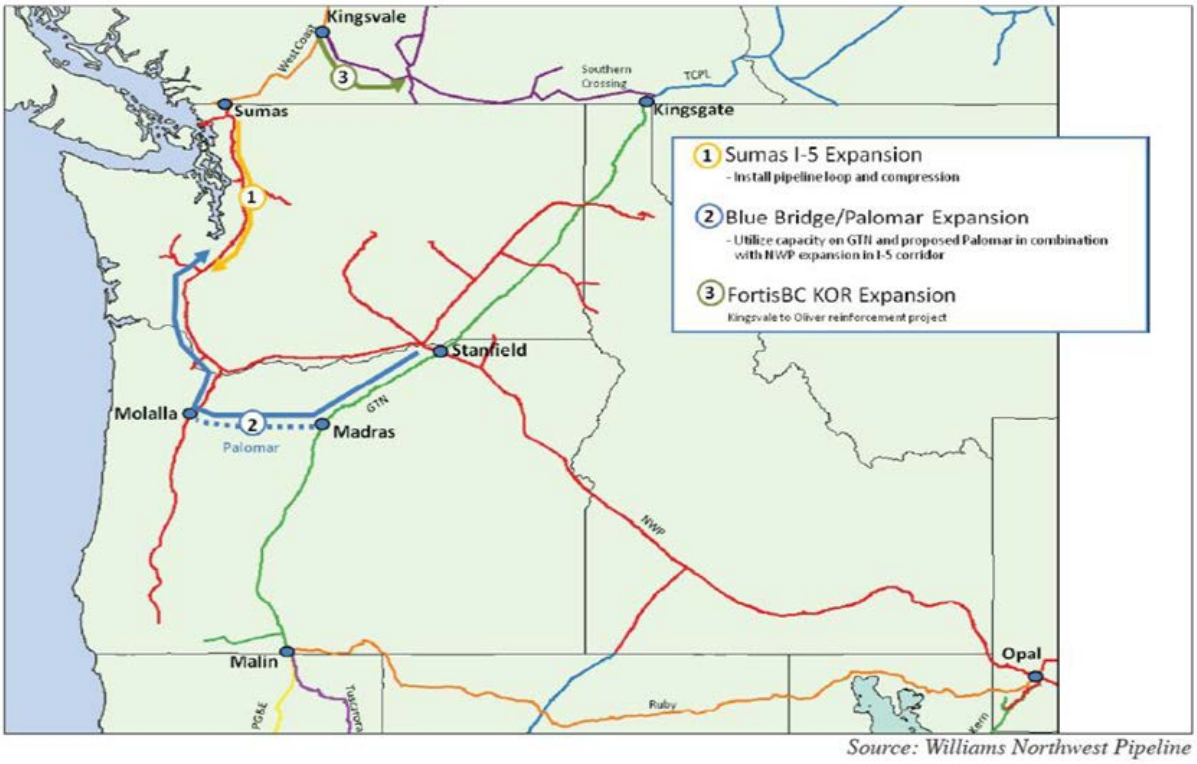
NWP is working with Oregon LNG to develop incremental capacity to serve the LNG terminal in Warrenton, Oregon. The LNG facility is proposed to be a 1.25 Bcf/d export facility. Currently, NWP looking at a 750,000 dths/day expansion that would require installation of 138 miles of 36-inch loop and compression at existing compressor stations. Similar to the N-MAX described above, NWP is still in the development stages and has not finalized the expansion scenarios or developed the rates. NWP anticipates holding an Open Season in early 2013, with service expected in 2016. We anticipate that along the proposed path there may be an opportunity for Cascade to pick up additional capacity to address our projected shortfalls in the Bellingham area.



- Palomar Pipeline – Palomar Gas Transmission is a partnership between NW Natural and TransCanada. The proposed 212 mile, 36-inch-diameter underground pipeline will extend from TransCanada's GTN system near Madras, Oregon to NW Natural's system near Molalla, Oregon. It will be a bi- directional pipeline with an initial capacity of 1,200 MMcf/d. As noted earlier, Palomar Gas Transmission has withdrawn its application for a certificate to build a natural gas pipeline in Oregon.

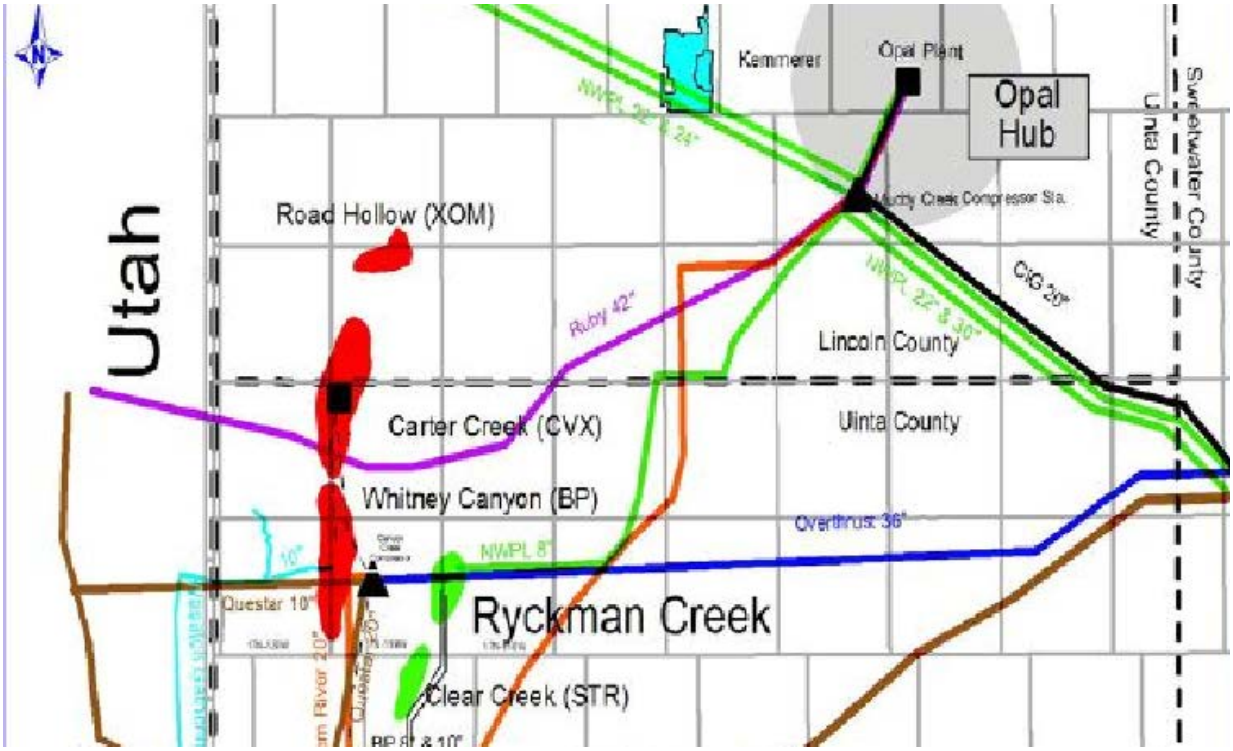
- Pacific Connector Gas Pipeline Project – as identified earlier, is a proposed234-mile, 36-inch diameter pipeline designed to transport up to 1 billion cubic feet of natural gas per day from the Jordan Cove LNG terminal to markets in the region. The Pacific Connector project includes interconnects to Williams´ Northwest Pipeline near Myrtle Creek, Oregon; Avista Corporation´s distribution system near Shady Cove, Oregon; Pacific Gas and Electric Company´s gas transmission system; Tuscarora Gas Transmission´s system; and Gas Transmission Northwest´s system, all located near Malin, Oregon. As noted earlier, this project is now viewed as an export facility; but it also has the possibility of bringing additional supply to the area to make part of our resource portfolio.

- T-South Enhancement/Southern Crossing Pipeline Extension – this is a project development that is being developed by FortisBC and Spectra Energy. A T-South pilot project has been in place since 2010, providing additional flexibility and optionality with bi-directional transport between Kingsgate and Huntingdon/Sumas. The proposed project would bill 160 km of 24 inch pipeline looping and add three new compressors. This will increase capacity to 284 MMcfd to Kingsgate and up to 140 MMcfd to Huntingdon/Sumas. This $440 million dollar project has an expected 2016 in-service date.



Source: Williams Northwest Pipeline

- Ryckman Creek Resources, LLC, a wholly-owned subsidiary of Peregrine Midstream Partners, LLC, recently announced they are conducting a non- binding Open Season to determine the interest of prospective customers in contracting for up to 8 BCF of firm, high- deliverability, multi-cycle (HDMC) working gas storage capacity beginning April 1, 2013. Ryckman Creek is located in Uinta County, Wyoming, near the Opal Hub. Ryckman Creek has converted a partially depleted oil and gas reservoir into a gas storage facility with 35 BCF of working gas and a maximum daily withdrawal rate of 480,000 Dth/d. The initial in-service date was August 20th, 2012. Ryckman Creek Gas Storage Facility is located near the town of Evanston, Wyoming and approximately twenty-five miles southwest of the Opal Hub. Ryckman Creek currently has interconnects with Questar Gas Pipeline, Kern River Transmission, Questar Overthrust Pipeline, Ruby Pipeline and Northwest Pipeline.



Natural Gas Price Forecast

For IRP planning purposes the company develops a baseline, high and low natural gas price forecast. Demand, oil price volatility, the global economy, electric generation, opportunities to take advantage of new extraction technologies, hurricanes and other weather activity will continue to impact natural gas prices for the foreseeable future. Cascade has considered price forecasts from several sources, such as Wood Mackenzie, Energy Information Administration, the Financial Forecast Center's forecast, as well as our observations of the market to develop the low, base and high price forecast. The following discussion provides an overview of the development of the baseline forecasts.

Development of Baseline Henry Hub price forecast

Cascade's long term planning price forecast is based on a blend of current market pricing along with long term fundamental price forecasts. Since pricing on the market is heavily influenced by Henry Hub prices, the Company closely monitors this market trend. While not a guarantee of where the market will ultimately finish, the current market (NYMEX) is the most current information available that provides some direction as to future market prices. On a daily basis, we can see where Henry Hub is trading and how the future basis differential in our physical supply receiving areas (Sumas, AECO, Rockies) is trading.

The fundamental forecasts include Wood Mackenzie, Energy Information Administration (EIA), Northwest Power Planning Council, the Texas Comptroller and the Financial Forecast Center's long term price forecasts. Wood MacKenzie publishes a long-term price forecast each quarter to subscribing customers. This forecast is broken down by month through the planning horizon and includes Henry Hub as well as basis differentials for our receiving areas. The company also considers the EIA forecast; however, it has its limitations since it is not always as current as the most recent market activity. Further, the EIA forecast provides monthly breakdowns in the short term, but longer term forecasts are only by year. Many of the other sources mentioned only provide price forecasts by year. Given Cascade's load profile and the need for more winter gas than summer, the company develops a pattern based on the market monthly forward prices to create a long-term, monthly Henry Hub price.

With a monthly Henry Hub price determined for the above sources, the company assigns a weight to each source to develop the monthly Henry Hub price forecast for the 20 year planning horizon. The forecast weighting factors are shown in Table 5-2. At the time the price forecast was developed, the Financial Forecast Center forecast was significantly lower than the Wood Mackenzie forecast and the forward market. Given the significantly higher future prices at the time versus the Comptroller forecast in addition to the fact that it only gives a three year forecast (2012-2014), the Company decided to severely limit the Financial Forecast Center from the weighted average. The Financial Forecast Center is unlikely to be a price source for Cascade in future plans. In recent years the EIA forecast has often been lower than the actual monthly price; however it is still a respected industry barometer of prices. Therefore, the EIA forecast was given a higher weight. As discussed earlier, while current market pricing may not accurately estimate the final market price, it often is a reliable indicator. Therefore, the company gave the current market pricing (NYMEX HH) some weight based on nearness to term. It should be noted that most of the forecast providers did not provide price forecasts for 2031. We chose to blend the Texas Comptroller and the EIA. While this represented a significant increase in weight for the Comptroller (moving from 1.5% to 45% weight) we decided to use the Comptroller given that 2031 is farthest year for the price forecast and desire to use more than one source for price forecasting. We had the option of also extending the trend-line of the NYMEX HH beyond year 2022, but felt it important to recognize that NYMEX HH is more a factor in short rather than long-term price. In future plans will not use the NYMEX HH trend-line for years beyond NYMEX trading period, consistent with how all other tools are used to develop the 20 year price forecast.

Development of the Basis Differential for Sumas, AECO and Rockies

Since the company's physical supply receiving areas (Sumas, AECO, and Rockies) are at a discount to Henry Hub, we utilize the basis differential from Wood Mackenzie's most recent update and compare that to the future markets basis trading as reported in public market. Although it is impossible to accurately estimate the future, for trading purposes the most recent period has been the best indicator of the direction of the market. Correspondingly, we applied a weighted average to determine the individual basis differential in the price forecast. Typically, we give the most weight to the current NYMEX Henry Hub price in the early years. As our forecast moves ahead we start to reduce the impact of the NYMEX (and the impact of speculation and other market uncertainties) and give greater weight to NWPPC, Wood Mackenzie and EIA.

In order to determine the low case and high case, the Company utilized the EIA economic growth factors (EIA Annual Energy Outlook 2011, Table E-1). This resulted in using 2.1 for the Low Case, 2.7 for the Reference Case and 3.2 for the High Case.

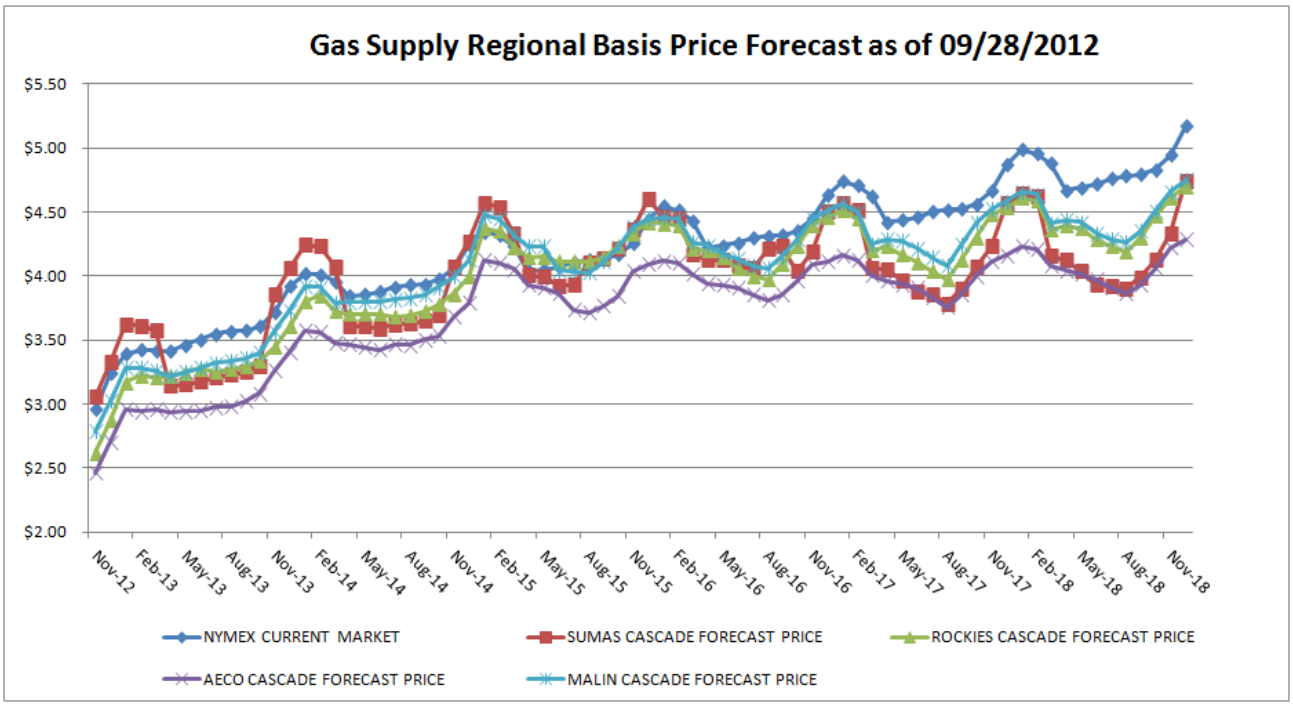
TABLE 5-3
HENRY HUB FORECAST WEIGHTING FACTORS

Year	Financial Forecast Center	NWPPC	TEXAS Comptroller	WoodMac	EIA	NYMEX HH
2012	0.50%	8.00%	0.50%	8.00%	8.00%	75.00%
2013	0.50%	8.00%	0.50%	8.00%	8.00%	75.00%
2014	0.50%	8.00%	0.50%	14.50%	14.50%	62.00%
2015	0.00%	30.00%	1.00%	14.50%	14.50%	40.00%
2016	0.00%	30.00%	1.00%	14.50%	14.50%	40.00%
2017	0.00%	30.00%	1.00%	14.50%	14.50%	40.00%
2018	0.00%	30.00%	1.00%	14.50%	14.50%	40.00%
2019	0.00%	30.00%	1.00%	14.50%	14.50%	40.00%
2020	0.00%	30.00%	1.00%	14.50%	14.50%	40.00%
2021	0.00%	30.00%	1.00%	14.50%	14.50%	40.00%
2022	0.00%	30.00%	1.50%	30.00%	18.50%	20.00%
2023	0.00%	30.00%	1.50%	30.00%	18.50%	20.00%
2024	0.00%	30.00%	1.50%	30.00%	18.50%	20.00%
2025	0.00%	30.00%	1.50%	30.00%	18.50%	20.00%
2026	0.00%	30.00%	1.50%	30.00%	18.50%	20.00%
2027	0.00%	30.00%	1.50%	30.00%	18.50%	20.00%
2028	0.00%	30.00%	1.50%	30.00%	18.50%	20.00%
2029	0.00%	30.00%	1.50%	30.00%	18.50%	20.00%
2030	0.00%	30.00%	1.50%	30.00%	18.50%	20.00%

2031	0.00%	0.00%	45.00%	0.00%	55.00%	0.00%
2032	0.00%	0.00%	45.00%	0.00%	55.00%	0.00%

Figure 5-D on the following page provides a summary of the medium price forecast (in real dollars) over the near term. Appendix E provides the detailed 20 year price forecasts.

FIGURE 5-D



Supply Side Resource Uncertainties

Several uncertainties exist in evaluating supply-side resources. They include regulatory risks, deliverability risks, and price risks. Regulatory risks include the unknown impacts of future Federal Energy Regulatory Commission or Canada's National Energy Board rulings that may impact the availability and cost of interstate pipeline transportation.

Deliverability risk is the risk that the firm supply will not be available for delivery to the Company's distribution system. Purchasing resources from larger producers or marketers who typically have gas reserves in multiple locations may minimize this risk. The risks associated with prices rising or falling during any winter period represent another supply-side uncertainty. To the extent the company purchases firm contracts that are tied to an index price, it may be at risk for paying more than was initially anticipated for the resource when the decision was made. Price risks associated with climbing prices can be minimized through the use of fixed price contracts or through the use of financial derivatives.

It should be noted that several proposals being discussed or that are in process involve a number of Canadian upstream pipelines which could have a direct impact on the availability of supply or at least may pose potential risks to increases in the price of supplies sourced from British Columbia and Alberta. For example, in response to competitive pressure on their mainline tolls, TransCanada Pipeline filed with the NEB to extend NOVA service east to Steelman and west to Kingsgate. This includes the roll-in of Foothills Pipeline. Under the plan, TCPL estimates western shippers (i.e. Cascade) will save between 5-7 cents including fuel. Eastern shippers will also see reduced rates while receipt shipper rates will increase 3-5 cents. Increases in costs for receipt shippers led to concerns that commodity prices for future gas supplies on the Alberta system may raise substantially. The Company will continue to monitor and be actively involved in the various pipeline forums as these initiatives develop.

As noted earlier, demand in Asia will likely make LNG exports from the Pacific Northwest a competitor for natural gas. It is also important to note an increasing trend in the use of natural gas vehicles (NGV) which utilize natural gas that has been compressed into a transportation fuel, also known simply as compressed natural gas. Taxis, transit and school buses, as well as heady- duty trucks are among the users of natural gas powered vehicles. The Natural Gas Vehicle Institute estimates there are more than 112,000 NGVs in the United States. Plentiful reserves of natural gas exist as a domestic fuel, typically at substantial discounts compared to gasoline. From an environmental impact, exhaust emissions are generally much lower than gasoline powered vehicles. As the United States continues to search for environmentally friendly, economically viable options to displace gasoline, natural gas is seen as a fuel that could significantly contribute to lessening American dependency on foreign oil.

According to the January 2012 Alternative Fuel Price Report from the Department of Energy, compressed natural gas had a price differential of between $1.50 and $2.25 compared to gasoline prices in Washington and Oregon. Several compressed natural gas fueling stations exist in the Seattle Metropolitan area; additionally, Avista has an active NGV fleet program in the works. While we have yet to see the demand for NGVs create notable competition for natural gas in the Pacific Northwest (although there are estimates that over 12 million NGVs exist world-wide), as technology improves and costs of fueling stations become more economical there exists the probability that NGV use will put pressure on future gas prices and availability. Cascade will continue to monitor activities in the NGV sector for possible impacts to our resource planning.

Financial Derivatives

Cascade constantly seeks methods to ensure ratepayers of price stability. In addition to methods such as long-term physical fixed price gas supply contracts and storage, another means for creating stability is through the use of financial derivatives. The general concept behind a derivative is to lock-in a forward natural gas price with a hedge, consequently eliminating exposure to significant swings in rising and falling prices. Financial derivatives include futures, swaps, and options on futures or some combination of these.

Natural gas futures contracts are actively traded on the New York Mercantile Exchange (NYMEX). The use of futures allows parties to lock-in a known price for extended periods of time (up to 6 years) in the future. Contracts are typically made in quantities of 10,000 dekatherms to be delivered to agreed-upon points (e.g., Sumas, Station 2, AECO, Northwest Pipeline Rockies, etc.) In a "swap", parties agree to exchange an index price for a fixed price over a defined period. In this scenario, Cascade would be able to provide its customers with a fixed price over the duration of the swap period. In theory the idea is to level the price over the long term. Futures and swaps are typically called "costless" because they have no up-front cost. Unlike futures and swaps, an option on futures only provides protection in one direction—either against rising or falling prices. For example, if Cascade wanted to protect itself against rising gas prices but keep the ability to take advantage of falling prices, Cascade can purchase a "call" option on a natural gas future contract. This arrangement would give the Company the right (but not the obligation) to buy the futures contract at a previously determined price ("strike price"). Similar to insurance, this transaction only protects the company from volatile price spikes, via a premium. The premium is typically a function of the variance between the strike price compared to the underlying futures price, the period of time before the option expires, and the volatility of the futures contract.

Portfolio Purchasing Strategy

Cascade's Gas Supply Oversight Committee (GSOC) oversees the Company's gas supply purchasing strategy. Beginning with the 2004/05 gas supply portfolio, Cascade has employed a more rigorous gas procurement strategy for both physical gas supplies and for hedging the price of the core portfolio. Cascade has contracted for physical supplies for up to three years (based on a warmer-than-normal weather pattern). The Company's current gas procurement strategy is to have physical gas supplies under contract for 100% of year one's warmer than normal core needs, 66% of year two, and 33% of year three. This strategy results in the need to contract annually for approximately one-third of the core portfolio supply needs for the upcoming three-year period. Under this procurement strategy, this leaves roughly 10 to 20% of the annual portfolio to be met with spot purchases. Spot purchases consist of either "First of the Month" deals executed during bid week for the upcoming month, or day purchases which are utilized to meet incremental daily needs.

Once the portfolio procurement strategy and design has been approved by GSOC, the Company employs a variety of methods for securing the best possible deal under existing market conditions. Cascade employs a bidding process when procuring Fixed physical, Indexed Spot physical, as well as financial swaps used to hedge the price of index based physical supplies. In the bidding process we alert a minimum of three suppliers and/or financial counterparties of the specific gas supply transactions Cascade plans to fill. We then collect bids from these parties over a period of days or weeks depending on the number or time requirements of the packages sought, comparing the indicative pricing to each party as well as comparing the information to market intelligence available at the time. Ideally, after monitoring these indicatives and the market, Cascade will award the specific packages to individual parties. Naturally, price is the principle factor; however, Cascade also considers reliability, financial health, past performance, and the party's share of the overall portfolio so that we ensure party diversity. It should be noted that

there is always the possibility the lowest market price may be during a period when we are initially gathering the price indicatives; in that situation there is a risk that a sudden price run-up may lead to filling the transaction at the higher end of the bids over time, or delay the acquisition to another time. However, the reverse is also true—the initial price indicatives may start high and drop over time allowing us to capture the transaction on the downward swing. In the end, timing is always a factor as the market cannot be predicted with any certainty.

GSOC also oversees the Company's gas supply hedging strategy. The Company's current gas hedging strategy is to hedge 45% of the contracted physical supplies of Year One, 30% of Year Two and 15% of Year Three. Depending on market conditions, the strategy allows for the ratchets to increase to 75%, 50% and 30%, respectively, provided current market information supports moving to a higher level. Currently, depressed market prices as well as concerns regarding new laws as a result of Dodd-Frank, have significantly reduced the need for financial swaps; the Company's current strategy is to rely primarily on fixed-priced physical supplies for hedging purposes.

Cascade's programmed buying approach has Cascade negotiating with suppliers and/or financial institutions throughout the year, loosely grouped during three specific time periods (Spring, Summer, and Fall). Ideally, the periods are designed so that each pricing basin (Sumas, Rockies, AECO) has financial swaps or fixed-priced physical supplies in each of the three buy periods. Typically, financial swaps are contracted in amounts in standard blocks of 10,000 dths. While it is possible to contract for other amounts, deviating from the standard blocks could potentially result in having to pay a premium as it is harder for the financial institution to hedge that odd amount with one of their counterparties. As a relatively small LDC, Cascade's ability to hedge in standard blocks is severely limited. Dividing the blocks into numerous smaller or odd sizes would incur increased transactional costs. In fact, some trading partners will not even consider executing a transaction that has varying volumes or are of a non-standard size. Consequently, Cascade's procurement and hedging periods are designed with these concerns in mind while trying to ensure that the total notional volume to be contracted is spread as equally as possible across the buy periods.

Utilizing the consistency of a programmed buying method as described above should help ensure that any locked-in prices provide stability over time, in addition to preventing Cascade from being over or under hedged. In the current contract year and beyond, Cascade plans to annually review our gas procurement physical and hedging strategy and, if unchanged, the company would continue its physical and hedging strategies as outlined above.

Cascade believes its gas procurement strategy is achieving diversity and flexibility in its gas supply portfolio through a combination of physical and financial structures. This goal encompasses not only supply basin origination and capacity limitations, but also includes a combination of pricing options that will assist Cascade in minimizing exposure to price volatility. The programmed buying approach to locking in a significant portion of gas prices maintains a market sensitive and balanced supply portfolio that continues to represent stable pricing as well as secure physical supplies for the Company's core customers.

Section 7

Resource Integration

Resource integration is the last step in Cascade's IRP process. It involves finding the least cost mix of demand and supply side resources given the forecasted load requirements of the core customers. The tool used to accomplish this task is a computer optimization model known as SENDOUT™. This model permits the Company to quickly develop and analyze a variety of resource portfolios to help determine the type, size, and timing of resources best matched to forecast requirements. SENDOUT™ is very powerful and complex. It operates by combining a series of existing and potential demand side and supply side resources and optimizes their utilization, at the lowest net present cost over the entire planning period, for a given demand forecast.

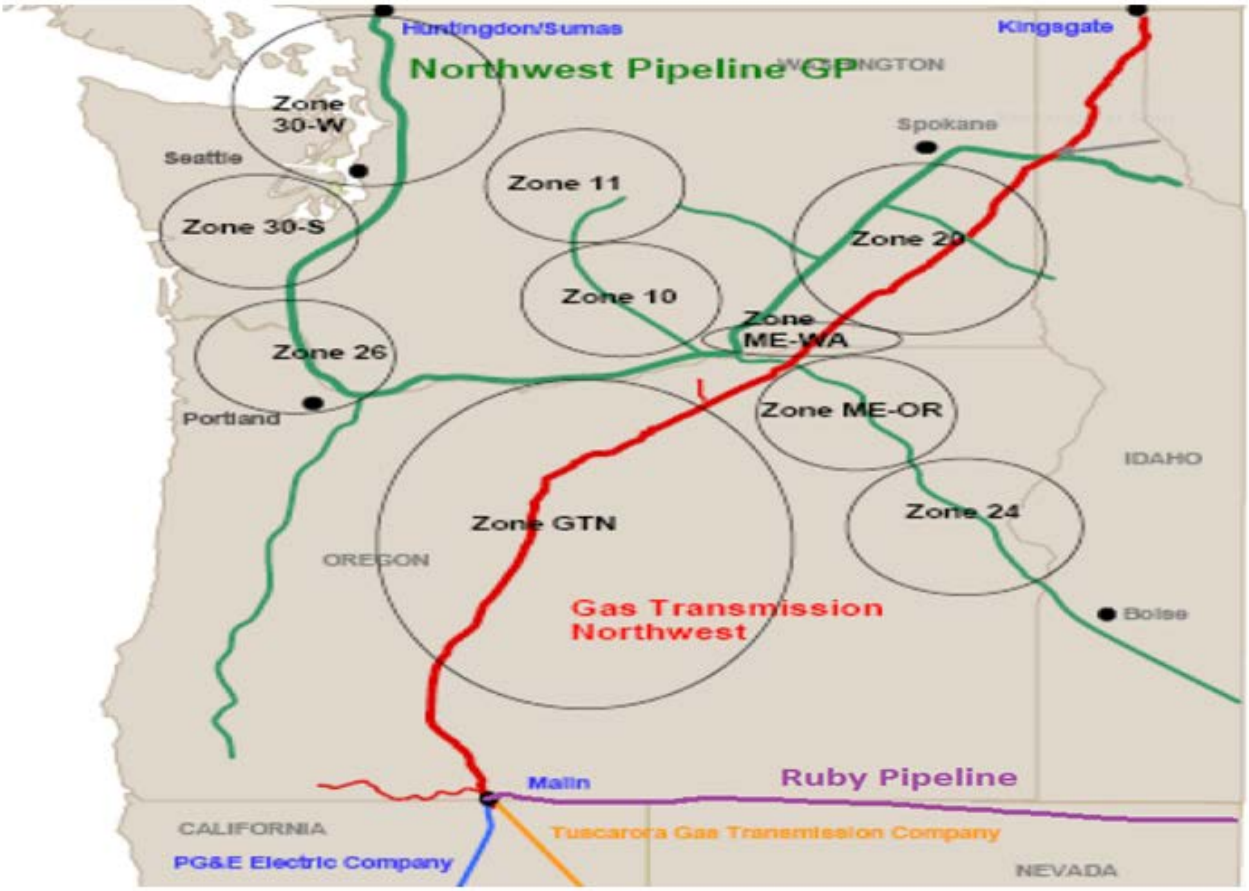
Resource Optimization Analysis Tools

SENDOUT™'s broad capabilities allow the Company to develop supply and demand relationships that closely mirror Cascade's existing operations. Cascade continued to model demand areas grouped by the various pipeline zones, a practice that began with the 2008 IRP. A copy of the network diagram is shown in Figure 7-A on the following page. These demand centers reflect on a daily basis, the aggregate 20 year load forecasts of Cascade's core market customers being served from either Northwest Pipeline GP (NWP) or Gas Transmission Northwest (GTN) interstate pipeline facilities. Individual transportation segments, storage, supply and demand side resources, both existing and potential, are targeted to these pipeline zones. This level of precision allows SENDOUT™ to consider each resource on an individual basis within the portfolio while also recognizing where physical system limitations exist. Resource characteristics such as a supply contract's daily delivery capability, minimum take requirements, maximum daily transport capability by individual segment, and storage inventory limitations and withdrawal and injection curve characteristics can be part of each resource's basic model inputs. The ability to model resources in this fashion allows SENDOUT™ to tailor its optimization within envisioned constraints and ensures that the model's optimal solution can work under anticipated operating conditions.

However, because SENDOUT™ utilizes a linear programming approach, its results are considered "deterministic". For example, the model knows the exact load and price for every day of the planning period based on the analyst's input and can therefore minimize costs in a way that would not be possible in the real world. Therefore, it is important to acknowledge that linear programming analysis provides helpful but not perfect information to guide decisions.

Since decisions are made in the context of uncertainty about the future, in 2006 Cascade purchased VectorGas™. VectorGas™ was an add-in product to the SENDOUT™ model that facilitates the ability to model gas price and load uncertainty (driven by weather) into the future. VectorGas™ utilizes a Monte Carlo approach in combination with the linear programming approach in SENDOUT™. The VectorGas™ functionality was integrated in the SENDOUT™ software with Version 12.5 which is the platform that Cascade prepared its integration analysis. The addition of the Monte-Carlo modeling capability provides additional information to decision makers under conditions of uncertainty. This tool continues to enhance the robustness of the Company's long-term resource planning and acquisition activities.

FIGURE 7-A



Scenarios versus Simulations

Prior to discussing the modeling process, inputs, and ultimately the results of the analyses, a brief discussion of the term scenarios versus simulations is necessary. As stated earlier, SENDOUT™ relies on a series of inputs or assumptions and then solves for the least cost solution based on the information provided to the model. Each group of assumptions is considered a scenario. For example, the company models medium load growth under average weather conditions where the assumed daily weather pattern is input into the SENDOUT™ model. The company also runs scenarios utilizing the low and high growth forecasts and historically has run several different price assumption scenarios. The results of each of these scenarios provide an answer or a least cost solution, which the optimization model has solved based on its perfect knowledge. Historically, this has provided the range of expected outcomes. However, with the addition of the Monte-Carlo functionality, the Company can now run simulations to determine if the scenario results are reasonable and to provide an expected range of results based on a statistical analysis.

Table 7-1 provides the list of scenarios included in this IRP and their key assumptions. To assess the impacts due to variations due in pricing and weather the company ran Monte-Carlo simulations on the Basecase scenario. The Company utilized the Basecase scenario as it represents the scenario Cascade considers most likely to be experienced over the planning horizon.

The basecase (Medium Load Growth, Medium Gas Price Forecast, Average weather with Peak Event) includes existing supply contracts, incremental supplies (peaking, annual, seasonal and citygate) from various receipt points (AECO, Rockies, Sumas, Station 2 and Malin). Other incremental supplies also include biogas and satellite LNG (behind citygate). The basecase includes current upstream pipeline transport capacity, as well as Ruby and incremental NWP and GTN capacity. We also included Cascade's current Jackson Prairie storage accounts, our Plymouth LNG account, as well as the potential to obtain a third party's Jackson Prairie account, Ryckman Creek or Mist storage.

In addition to the 200 draws, the Company prepared several sensitivity scenarios to test the resource selections when the baseline conditions were changed. Table 7-2 below describes those sensitivity scenarios.

Decision Making Tool

Analysis of optimization model results and other operational and contractual constraints allows Cascade to make more informed resource decisions. The IRP optimization model output and Monte-Carlo simulation analysis will provide the quantifiable output from numerous model inputs. The model does not prescribe the ultimate resource portfolio. It can only determine the least cost set of resources given their specific pricing and quantifiable constraint characteristics. However, there are many other combinations of resources that may be available over the planning horizon. Cascade must still make subjective risk judgments about unquantifiable and intangible issues related to resource selections. These will include future flexibility, supplier deliverability risk, pipeline(s) risk, financial risk to the utility and its ratepayers, operational constraints, regulatory risk, etc. The risk judgments are combined with the quantitative IRP analysis to form actual resource decisions.

TABLE 7-1
SUMMARY OF PORTFOLIO ANALYSIS AND RESOURCE ALTERNATI VES

ID	SCENARIO NAME	KEY ELEMENTS IN SENDOUT SCENARIO Medium Load Growth, Medium Gas Price Forecast, Average weather with Peak Event. All elements considered. All items in **RED** mean that elements was excluded from the scenario		
2934	All in Case	**Current Station2** **Current NOVA-Foothills** **Current GTN** **Current NWP** **Current Ruby** **Ryckman Crk Storage** **Incremental JP** **Mist Storage** **DSM as a supply**	**Incremental NOVA** **Incremental GTN** **Incremental NWP** **Incremental Ruby** **JP1, JPExp, JP3-4, LS** **T-South-So Crossing** **Pacific Connector** **N-MAX-Stan-Madr** **N-MAX Madr I-5**	**AECO Year, Seas, Spot** **Sumas Year, Seas, Spot** **Rockies Year, Seas, Spot** **Station2Year, Seas, Spot** **Citygate GTN, NWP** **BioNatualGas** **Satellite LNG** **WA Expansion**
2925	As Is Scenario	**Current Station2** **Current NOVA-Foothills** **Current GTN** **Current NWP** **Current Ruby** ***Ryckman Crk Storage*** ***Incremental JP*** ***Mist Storage*** ***DSM as a supply***	**Incremental NOVA** **Incremental GTN** **Incremental NWP** **Incremental Ruby** **JP1, JPExp, JP3-4, LS** ***T-South-So Crossing*** ***Pacific Connector*** ***N-MAX-Stan-Madr*** ***N-MAX Madr I-5***	**AECO Year, Seas, Spot** **Sumas Year, Seas, Spot** **Rockies Year, Seas, Spot** **Station2Year, Seas, Spot** **Citygate GTN, NWP** ***BioNatualGas*** ***Satellite LNG*** ***WA Expansion***
2929	Limited Canadian Imports	**Current Station2** **Current NOVA-Foothills** **Current GTN** **Current NWP** **Current Ruby** **Ryckman Crk Storage** ***Incremental JP*** ***Mist Storage*** **DSM as a supply**	**Incremental NOVA** **Incremental GTN** **Incremental NWP** **Incremental Ruby** **JP1, JPExp, JP3-4, LS** ***T-South-So Crossing*** ***Pacific Connector*** ***N-MAX-Stan-Madr*** ***N-MAX Madr I-5***	**AECO *Year, Seas*, Spot** **Sumas Year, Seas, Spot** **Rockies Year, Seas, Spot** **Station2 *Year, Seas*, Spot** **Citygate GTN, NWP** **BioNatualGas** **Satellite LNG** ***WA Expansion***

ID	SCENARIO NAME	KEY ELEMENTS IN SENDOUT SCENARIO Medium Load Growth, Medium Gas Price Forecast, Average weather with Peak Event. All elements considered. All items in **RED** mean that elements was excluded from the scenario		
2927	Ryckman Creek	**Current Station2** **Current NOVA-Foothills** **Current GTN** **Current NWP** **Current Ruby** **Ryckman Crk Storage** ***Incremental JP*** ***Mist Storage*** **DSM as a supply**	**Incremental NOVA** **Incremental GTN** **Incremental NWP** **Incremental Ruby** **JP1, JPExp, JP3-4, LS** ***T-South-So Crossing*** ***Pacific Connector*** ***N-MAX-Stan-Madr*** ***N-MAX Madr I-5***	**AECO Year, Seas, Spot** **Sumas Year, Seas, Spot** **Rockies Year, Seas, Spot** **Station2Year, Seas, Spot** **Citygate GTN, NWP** **BioNatualGas** **Satellite LNG** ***WA Expansion***
2928	Mist	**Current Station2** **Current NOVA-Foothills** **Current GTN** **Current NWP** **Current Ruby** ***Ryckman Crk Storage*** ***Incremental JP*** **Mist Storage** **DSM as a supply**	**Incremental NOVA** **Incremental GTN** **Incremental NWP** **Incremental Ruby** **JP1, JPExp, JP3-4, LS** ***T-South-So Crossing*** ***Pacific Connector*** ***N-MAX-Stan-Madr*** ***N-MAX Madr I-5***	**AECO Year, Seas, Spot** **Sumas Year, Seas, Spot** **Rockies Year, Seas, Spot** **Station2Year, Seas, Spot** **Citygate GTN, NWP** **BioNatualGas** **Satellite LNG** ***WA Expansion***
2928	Mist and Ryckman Creek	**Current Station2** **Current NOVA-Foothills** **Current GTN** **Current NWP** **Current Ruby** **Ryckman Crk Storage** ***Incremental JP*** **Mist Storage** **DSM as a supply**	**Incremental NOVA** **Incremental GTN** **Incremental NWP** **Incremental Ruby** **JP1, JPExp, JP3-4, LS** ***T-South-So Crossing*** ***Pacific Connector*** ***N-MAX-Stan-Madr*** ***N-MAX Madr I-5***	**AECO Year, Seas, Spot** **Sumas Year, Seas, Spot** **Rockies Year, Seas, Spot** **Station2Year, Seas, Spot** **Citygate GTN, NWP** **BioNatualGas** **Satellite LNG** ***WA Expansion***
2930	T-South Enhancement/Southern Crossing with Limited Canadian	**Current Station2** **Current NOVA-Foothills** **Current GTN** **Current NWP** **Current Ruby** **Ryckman Crk Storage** ***Incremental JP*** ***Mist Storage*** **DSM as a supply**	**Incremental NOVA** **Incremental GTN** **Incremental NWP** **Incremental Ruby** **JP1, JPExp, JP3-4, LS** **T-South-So Crossing** ***Pacific Connector*** ***N-MAX-Stan-Madr*** ***N-MAX Madr I-5***	**AECO *Year, Seas*, Spot** **Sumas Year, Seas, Spot** **Rockies Year, Seas, Spot** **Station2 *Year, Seas*, Spot** **Citygate GTN, NWP** **BioNatualGas** **Satellite LNG** ***WA Expansion***

ID	SCENARIO NAME	KEY ELEMENTS IN SENDOUT SCENARIO Medium Load Growth, Medium Gas Price Forecast, Average weather with Peak Event. All elements considered. All items in **RED** mean that elements was excluded from the scenario		
2930-1	T-South Enhancement/Southern Crossing	**Current Station2** **Current NOVA-Foothills** **Current GTN** **Current NWP** **Current Ruby** **Ryckman Crk Storage** ***Incremental JP*** ***Mist Storage*** **DSM as a supply**	**Incremental NOVA** **Incremental GTN** **Incremental NWP** **Incremental Ruby** **JP1, JPExp, JP3-4, LS** **T-South-So Crossing** ***Pacific Connector*** ***N-MAX-Stan-Madr*** ***N-MAX Madr I-5***	**AECO Year, Seas, Spot** **Sumas Year, Seas, Spot** **Rockies Year, Seas, Spot** **Station2 Year, Seas, Spot** **Citygate GTN, NWP** **BioNatualGas** **Satellite LNG** ***WA Expansion***
2931	Pacific Northwest Regional (NMAX, WA Expansion, Palomar)	**Current Station2** **Current NOVA-Foothills** **Current GTN** **Current NWP** **Current Ruby** **Ryckman Crk Storage** ***Incremental JP*** ***Mist Storage*** **DSM as a supply**	**Incremental NOVA** **Incremental GTN** **Incremental NWP** **Incremental Ruby** **JP1, JPExp, JP3-4, LS** ***T-South-So Crossing*** ***Pacific Connector*** **N-MAX-Stan-Madr** **N-MAX Madr I-5**	**AECO Year, Seas, Spot** **Sumas Year, Seas, Spot** **Rockies Year, Seas, Spot** **Station2Year, Seas, Spot** **Citygate GTN, NWP** **BioNatualGas** **Satellite LNG** **WA Expansion**
2932	Pacific Connector	**Current Station2** **Current NOVA-Foothills** **Current GTN** **Current NWP** **Current Ruby** **Ryckman Crk Storage** ***Incremental JP*** ***Mist Storage*** **DSM as a supply**	**Incremental NOVA** **Incremental GTN** **Incremental NWP** **Incremental Ruby** **JP1, JPExp, JP3-4, LS** ***T-South-So Crossing*** **Pacific Connector** ***N-MAX-Stan-Madr*** ***N-MAX Madr I-5***	**AECO Year, Seas, Spot** **Sumas Year, Seas, Spot** **Rockies Year, Seas, Spot** **Station2Year, Seas, Spot** **Citygate GTN, NWP** **BioNatualGas** **Satellite LNG** ***WA Expansion***
2933	Incremental JP	**Current Station2** **Current NOVA-Foothills** **Current GTN** **Current NWP** **Current Ruby** **Ryckman Crk Storage** **Incremental JP** ***Mist Storage*** **DSM as a supply**	**Incremental NOVA** **Incremental GTN** **Incremental NWP** **Incremental Ruby** **JP1, JPExp, JP3-4, LS** ***T-South-So Crossing*** ***Pacific Connector*** ***N-MAX-Stan-Madr*** ***N-MAX Madr I-5***	**AECO Year, Seas, Spot** **Sumas Year, Seas, Spot** **Rockies Year, Seas, Spot** **Station2Year, Seas, Spot** **Citygate GTN, NWP** **BioNatualGas** **Satellite LNG** ***WA Expansion***

TABLE 7-2
SENSITIVITIES ANALYSES

Scenario Name	Key Assumptions
High Growth	Strong Economic Growth result in High Load growth, Average Weather, Medium Gas Prices
Low Growth	Economic Conditions result in Low Load growth, Average Weather, Medium Gas Prices
Environmental Externalities Carbon 1	Medium Load Growth, Average Weather, Assumes Carbon Adder Implemented in 2017 for CO2 emissions at $15/ton with adder increasing annually by 3% plus CPI (Consumer Price Index)
Environmental Externalities Carbon 2	Medium Load Growth, Average Weather, Assumes Carbon Adder Implemented in 2017 for CO2 emissions at $20/ton with adder increasing annually by 3% plus CPI (Consumer Price Index)
Environmental Externalities Carbon 3	Medium Load Growth, Average Weather, Assumes Carbon Adder Implemented in 2017 for CO2 emissions at $30/ton with adder increasing annually by 3% plus CPI (Consumer Price Index)

Key Inputs

Demand Forecast Items & Weather Assumptions

The optimization process compares a portfolio of resources against a specific demand requirement. SENDOUT™ generates a daily demand forecast by combining base load and temperature sensitive usage factor inputs with a specified daily temperature pattern input. The company develops usage factors for each of the zones shown on Figure 7-A; this includes nine demand centers on NWP and one on GTN which is utilized to meet Cascade's Central Oregon load. In order to develop the temperature sensitive usage factors on a zone by zone basis, the company reviewed pipeline deliveries for the 2004 through 2010 period and developed monthly use per customer per degree day factors. The annual customer growth rates from the low, medium and high forecasts discussed in Section 3 were developed for each of the NWP zones and were applied to 2010 monthly core customer counts. Weather patterns for each of the zones were developed based on 5 distinct weather areas. The weather areas and their applicability to each of the zones are shown in Appendix B-1.

Prior to the 2007 IRP, the company had developed daily temperature patterns to estimate the impact of weather ranging from warmer than normal to design conditions, with the expected portfolio being one with average weather. The average weather pattern historically had been based on the 20 year average excluding the high/low annual degree day totals to develop an annual total for each area. These totals were then allocated to the daily readings based on the 90/91 winter pattern since that was the most recent year in the company's weather history with a peak day reading of 61 DDs. However, with the

ability to run Monte-Carlo simulations, the company modified its approach and developed its "average" weather pattern based on the company's 60+ year weather history, and the expected degree days for each month. The average pattern for each area was approached on a month-by-month expected value and then the degree days were allocated within the month based on the past years' average daily distribution. Since a peak event can occur in an otherwise normal weather year, the average weather scenario includes one 3-day peak event, which includes a design day reading of 61 degree days system wide.

Demand Side Alternatives

For purposes of this IRP, the Company has utilized the annual achievable potential schedule shown on Table 6-6 in Section 6 as an input to the optimization model. Because the company models demand by individual zone, conservation has been treated as a "must-take" supply alternative available at the pipeline citygate level. This approach allows the conservation resource to displace supply and pipeline transportation resources that would otherwise be necessary to meet demand requirements. For purposes of modeling, 80% of the identified Oregon Conservation resources are assumed to occur on the GTN pipeline with the remaining 20% occurring on Northwest pipeline. Washington conservation was modeled as a must-take resource at the NWP citygate. Because the acquisition of DSM is dependent upon a number of small purchases, determining which pipeline zones will procure the most conservation at this point is still premature. In future planning cycles, the company will continue to review the results of the participation levels and determine if more detailed assumptions on conservation acquisition can be modeled. Under the basecase scenario the company has assumed that conservation resources could be purchased, on a levelized cost per therm basis of $6. The cost per therm figure of $6 is an estimate of the combined Total Resource Cost for all measures included in the program, including program delivery and administration costs.

Supply Side Resource Alternatives

For modeling purposes, supply side alternatives are grouped into one of three categories: gas supply, storage facilities, or pipeline transportation. As discussed in Section 5, some of the supply alternatives include one or more of these categories. For example, a gas supply resource may be delivered at Cascade's citygate, essentially reducing the requirement for firm pipeline capacity. A satellite LNG facility (whether trucked in or liquefied on site) located within Cascade's distribution system can reduce the need for pipeline capacity on a peak day as the supplies will be available to be directly flowed into Cascade's local system. The following table provides a high level summary of the resource alternatives considered over the planning horizon.

Table 7-3
Supply Side Alternatives Modeled

Resource	Scenario Considered
Conventional Gas Supply Contracts with annual, seasonal or winter only characteristics delivered to Northwest Pipeline & GTN Systems	All
Conventional Gas Supply Peaking Contracts Delivered to Northwest Pipeline & GTN Systems	All
Gas Supply Peaking Contract delivered to Cascade's citygates	All
LNG Import Supplies Delivered to Northwest Pipeline System	All
Satellite LNG Storage within Cascade's distribution sytem	All
Additional Pipeline Capacity secured through medium--long term capacity agreements	All

Natural Gas Price Forecast

Price volatility has become an on-going factor in the natural gas industry since 2005. Prices in the natural gas market continued to be volatile through 2008 (upwards to $13 per dth), but have since dropped considerably (currently around $3-$4). As discussed in Section 5, natural gas prices will continue to be influenced by demand, oil price volatility, the global economy, electric generation, new extraction technologies, hurricanes and other weather activity. As a result, it is impossible to accurately estimate what future natural gas prices will be over the planning horizon. However, Cascade has considered price forecasts from several sources, such as Wood Mackenzie, Energy Information Administration, the Financial Forecast Center's forecast, as well as our observations of the market to develop our low, base and high price forecast. As mentioned earlier, details of the company's price forecast can be found in Appendix E.

The Company compared the Monte-Carlo price simulation results to the low, base and high forecasts and found that the 200 draws captured the same range of pricing outlined in the forecasts shown in the Appendix. Therefore, individual deterministic runs under the low and high price forecast were not run.

Integration Results and Key Findings

As described earlier in this section, Cascade performed several different scenarios and the results are summarized below. However, it should be noted that the results of these analyses should be considered broadly. Like all analyses, the results of the resource optimization models are dependent upon the input assumptions provided. Scenario and Monte-Carlo analysis help by providing information on the ranges of input assumptions. Whether Cascade eventually secures these particular resources, acquires ones of comparable size and characteristics, or decides on an alternative approach is subject to ongoing resource investigation and evaluation activities. Specific resources made

available to the model at this time may or may not be physically available at the time they are needed or economically attractive in comparison to alternatives that may become available in the future. Therefore, prior to securing any of these resources, additional analyses of the specific resource must be completed.

The results of the various scenarios are fairly consistent and reveal the following general trends:

- Even with energy efficiency programs, Cascade will need to acquire additional capacity resources to meet anticipated peak day requirements, due to Cascade's continued growth in its residential and commercial customer base. Several of Cascade's existing transportation agreements will expire over the next several years. In most cases, Cascade has the unilateral right to extend or cancel the expiring contracts upon one year's notice. As a result, the company will have the opportunity to review alternatives to extend or replace those contracts.

- Satellite LNG/Peak shaving facilities located within Cascade's distribution system (for example Zones 10 and 11—the Wenatchee lateral) may also be an attractive alternative to incremental pipeline capacity in areas where physical limitations at the gate stations would result in even higher costs associated with a pipeline solution. There may be additional advantages to such a strategy to the extent a facility could be strategically located on a portion of the distribution system that will eliminate or reduce distribution system constraints.
- Based on the shale boom, continuing low price supplies and increasing demand in Asia, it looks like LNG will become an exporter from the Pacific Northwest as opposed to importing. In a situation such as that with Pacific Connector, Cascade will not become a shipper to the export facility but rather we will compete for supplies at the Malin hub where several pipelines, including Pacific Connector will have supply trading activities.

- We considered the impact of possible reductions in exports of gas supplies physically produced in British Columbia and Alberta, by limiting the amount of physical Canadian supplies that could be exported via existing infrastructure at Station 2, Sumas or AECO to approximately 60% by not making several packages of these supplies available to the model.. Under this scenario, the model chose to increase the amount of imported Rockies gas via either Ruby/Malin transaction or Malin/Stanfield exchange. Given the proliferation of shale gas, we do not see access to Canadian gas being a problem—gas will be available—however, we will be competing with many parties and consequently, may experience potential volatility and price spikes.

- We modeled Ryckman Creek storage at varying reservation rates and working inventory levels. In a range of reservation rates that are enssentially equivalent to

slight lower than Jackson Prairie expansion and significantly higher, SENDOUT consistently selected Ryckman Creek storage with working inventory between 300,000 and 500,000. It should be noted that the model also suggested picking up incremental GTN backhaul service as well as increased amounts of Ruby capacity. The model selected incremental Ruby capacity both on a seasonal basis as well as an annual basis, depending on reservation rate. It appears that Cascade should continue to hold discussions with Ryckman Creek as well as do additional al analysis in order to make a final determination of what level of participation would be appropriate.

- Incremental Jackson Prairie storage was also selected by the model. The company will continue to evaluate potential options to acquire more on system storage capabilities. However, it is worth noting that when we ran incremental Jackson Prairie as well as giving the model the option to pick up Mist, Jackson Prairie was selected. Using the current tariff rate for Mist, the model did not select Mist as a storage alternative, even when attached to discounted or current NWP transportation.

- 20 year portfolio costs on a Net Present Value (NPV) basis, are expected to range between $2,448,210,000 to $3,216,376,000 for the planning period, with an average cost per therm ranging between $.354 and $.447.

Table 7-4 on the following page summarizes the results from each of the modeling scenarios mentioned in Table 7-1.

Table 7-4
SUMMARY OF PORTFOLIO ANALYSIS RESULTS

ID	SCENARIO NAME	KEY ELEMENTS IN SENDOUT SCENARIO and RESULTS DISCUSSION Medium Load Growth, Medium Gas Price Forecast, Average weather with Peak Event. All elements considered. All items in **RED** mean that elements was excluded from the scenario
2934	All in Case	**Current Station2** **Current NOVA-Foothills** **Current GTN** **Current NWP** **Current Ruby** **Ryckman Crk Storage** **Incremental JP** **Mist Storage** **DSM as a supply** **Incremental NOVA** **Incremental GTN** **Incremental NWP** **Incremental Ruby** **JP1, JPExp, JP3-4, LS** **T-South-So Crossing** **Pacific Connector** **N-MAX-Stan-Madr** **N-MAX Madr I-5** **AECO Year, Seas, Spot** **Sumas Year, Seas, Spot** **Rockies Year, Seas, Spot** **Station2Year, Seas, Spot** **Citygate GTN, NWP** **BioNatualGas** **Satellite LNG** **WA Expansion** The All In Case run allows the company to see what the model would selcect if all current and probably resources are available. AECO supplies, as the cheapest basin in the horizon, were selected, which makes sense as T-South Enhancement is essentially creates a slight discount to T-South on Spectra. Almost four times as much AECO is selected as compared of the base case. Gas at Malin on its way to the LNG facility is not selected as there are multitude of less expensive resources (for completion purposes we treat Pacific Connector supplies at Malin priced at AECO Plus $4, to mimic the Asian competition for the supplies. The proposed regional pipeline is is selected to take gas from Stanfield, past Madras and on to Bellingham. It is important to note that we set the transport rates for Palomar, N-MAX and WA South Expansion at approximately 3X times the current NWP rate. Until the pipeline(s) reveal the rates, we cannot reliably count on this as a valid resource option for the base case. Ryckman Creek is selected at levels between .3 and 5 Bcf, and is consistently selected regardless of the scenario. Hence we believe it is logical to include Ryckman Creek as part of the base case.

ID	SCENARIO NAME	KEY ELEMENTS IN SENDOUT SCENARIO and RESULTS DISCUSSION Medium Load Growth, Medium Gas Price Forecast, Average weather with Peak Event. All elements considered. All items in **RED** mean that elements was excluded from the scenario
2925	As Is Scenario	**Current Station2** / **Incremental NOVA** / **AECO Year, Seas, Spot** **Current NOVA-Foothills** / **Incremental GTN** / **Sumas Year, Seas, Spot** **Current GTN** / **Incremental NWP** / **Rockies Year, Seas, Spot** **Current NWP** / **Incremental Ruby** / **Station2Year, Seas, Spot** **Current Ruby** / **JP1, JPExp, JP3-4, LS** / **Citygate GTN, NWP** ***Ryckman Crk Storage*** / ***T-South-So Crossing*** / ***BioNatualGas*** ***Incremental JP*** / ***Pacific Connector*** / ***Satellite LNG*** ***Mist Storage*** / ***N-MAX-Stan-Madr*** / ***WA Expansion*** ***DSM as a supply*** / ***N-MAX Madr I-5*** The As Is Case run allows the company to see what the model does without the alternative resources attached. It sets a bench mark to test th validity of the information (for instance comparing system costs the first year to the most recent PGA). Additionally, the model is given a some minor limits to determine see the range of served and unserved peak day load is. Unserved during the planning horizon was approximately 5,217,000 therms.
2929	Limited Canadian Imports	**Current Station2** / **Incremental NOVA** / **AECO *Year, Seas*, Spot** **Current NOVA-Foothills** / **Incremental GTN** / **Sumas Year, Seas, Spot** **Current GTN** / **Incremental NWP** / **Rockies Year, Seas, Spot** **Current NWP** / **Incremental Ruby** / **Station2 *Year, Seas*, Spot** **Current Ruby** / **JP1, JPExp, JP3-4, LS** / **Citygate GTN, NWP** **Ryckman Crk Storage** / ***T-South-So Crossing*** / **BioNatualGas** ***Incremental JP*** / ***Pacific Connector*** / **Satellite LNG** ***Mist Storage*** / ***N-MAX-Stan-Madr*** / ***WA Expansion*** **DSM as a supply** / ***N-MAX Madr I-5*** In this scenario no AECO other than a small amount of an expensive supply (AECO plus $0.26) was made available to the model. In the base case none of the expensive AECO gas is selected. As expected, the model selects an additional 8000 dths of Ruby capacity and ramps up the Ryckman Creek to .5 Bcf. Ruby volumes double compared to the base case.

ID	SCENARIO NAME	KEY ELEMENTS IN SENDOUT SCENARIO and RESULTS DISCUSSION Medium Load Growth, Medium Gas Price Forecast, Average weather with Peak Event. All elements considered. All items in **RED** mean that elements was excluded from the scenario
2927	Base Case	**Current Station2** **Current NOVA-Foothills** **Current GTN** **Current NWP** **Current Ruby** **Ryckman Crk Storage** ***Incremental JP*** ***Mist Storage*** **DSM as a supply** **Incremental NOVA** **Incremental GTN** **Incremental NWP** **Incremental Ruby** **JP1, JPExp, JP3-4, LS** ***T-South-So Crossing*** ***Pacific Connector*** ***N-MAX-Stan-Madr*** ***N-MAX Madr I-5*** **AECO Year, Seas, Spot** **Sumas Year, Seas, Spot** **Rockies Year, Seas, Spot** **Station2Year, Seas, Spot** **Citygate GTN, NWP** **BioNatualGas** **Satellite LNG** ***WA Expansion*** We chose this combination as the base case in that it contains the solid mix of existing supplies and transport. As identified earlier, Ryckman Creek storage is consistently selected by the model regardless of the scenarios so we it is advisable to consider this a viable resource for the horizon. Incremental JP is not currently available or anticipated. While we have managed to pick up some of PSE's excess JP storage it appears from theirs (and other LDCs IRPs) that the ability to pick up long-term storage from existing customer is not likely. Unless steeply discounted, the model did not select Mist Storage when it was run separately, We will watch for an open season, but at this point given the model results this doesn't strike us as prudent choice for the base case. In most of the runs for T-South/Southern Crossing, that resource was only selected at volumes of less than 2000 dths/day; the volume is insignificant and the nomination scheduling is operationally more complicated (Westcoast, Fortis, South Crossing, Nova, Foothills, GTN) . We see limited value in T-South Enhancement at this time. We have excluded Pacifc Connector supplies at Malin from the base case as it is only selected during cold events (e.g. Dec peak day), but it is not certain that the pipeline will get built to the LNG facility, let alone have supplies competitively priced for Cascade to obtain. The N-MAX and WA Expansions seem attractive on the surface in that the projects are along our distribution system—however, there are too many unknowns between the various partners (FERC approval, rates, final paths) so it seems imprudent to include these resources at this time as viable resource candidates for the base case. The has been a bit of interest raised in the last year or so by parties seeking to move biogas on the distribution system; additionally, we still view Satellite LNG at specific locations to be a cost effective solution to meet winter loads without incurring the additional expense of pipeline infrastructure. Therefore, we include small amounts of these potential resources in the base case portfolio.

ID	SCENARIO NAME	KEY ELEMENTS IN SENDOUT SCENARIO and RESULTS DISCUSSION Medium Load Growth, Medium Gas Price Forecast, Average weather with Peak Event. All elements considered. All items in **RED** mean that elements was excluded from the scenario
2928	Mist	**Current Station2** / **Incremental NOVA** / **AECO Year, Seas, Spot** **Current NOVA-Foothills** / **Incremental GTN** / **Sumas Year, Seas, Spot** **Current GTN** / **Incremental NWP** / **Rockies Year, Seas, Spot** **Current NWP** / **Incremental Ruby** / **Station2Year, Seas, Spot** **Current Ruby** / **JP1, JPExp, JP3-4, LS** / **Citygate GTN, NWP** ***Ryckman Crk Storage*** / ***T-South-So Crossing*** / **BioNatualGas** ***Incremental JP*** / ***Pacific Connector*** / **Satellite LNG** **Mist Storage** / ***N-MAX-Stan-Madr*** / ***WA Expansion*** **DSM as a supply** / ***N-MAX Madr I-5*** Unless steeply discounted, the model did not select Mist Storage when it was run separately, We will watch for an open season, but at this point given the model results this doesn't strike us as prudent choice for the base case. We ran this particular scenario without the completion of Ryckman Creek but the model still did not select Mist.
2928	Mist and Ryckman Creek	**Current Station2** / **Incremental NOVA** / **AECO Year, Seas, Spot** **Current NOVA-Foothills** / **Incremental GTN** / **Sumas Year, Seas, Spot** **Current GTN** / **Incremental NWP** / **Rockies Year, Seas, Spot** **Current NWP** / **Incremental Ruby** / **Station2Year, Seas, Spot** **Current Ruby** / **JP1, JPExp, JP3-4, LS** / **Citygate GTN, NWP** **Ryckman Crk Storage** / ***T-South-So Crossing*** / **BioNatualGas** ***Incremental JP*** / ***Pacific Connector*** / **Satellite LNG** **Mist Storage** / ***N-MAX-Stan-Madr*** / ***WA Expansion*** **DSM as a supply** / ***N-MAX Madr I-5*** We modeled Ryckman Creek storage at varying reservation rates and working inventory levels. In a range of reservation rates that are essentially equivalent to slight lower than Jackson Prairie expansion and significantly higher, SENDOUT consistently selected Ryckman Creek storage with working inventory between 300,000 and 500,000. It should be noted that the model also suggested picking up incremental GTN backhaul service as well as increased amounts of Ruby capacity. The model selected incremental Ruby capacity both on a seasonal basis as well as an annual basis, depending on reservation rate. It appears that Cascade should continue to hold discussions with Ryckman Creek as well as do additional al analysis in order to make a final determination of what level of participation would be appropriate.

ID	SCENARIO NAME	KEY ELEMENTS IN SENDOUT SCENARIO and RESULTS DISCUSSION Medium Load Growth, Medium Gas Price Forecast, Average weather with Peak Event. All elements considered. All items in **RED** mean that elements was excluded from the scenario
2930	T-South Enhancement/Southern Crossing with Limited Canadian	**Current Station2** **Incremental NOVA** **AECO *Year, Seas*, Spot** **Current NOVA-Foothills** **Incremental GTN** **Sumas Year, Seas, Spot** **Current GTN** **Incremental NWP** **Rockies Year, Seas, Spot** **Current NWP** **Incremental Ruby** **Station2 *Year, Seas*, Spot** **Current Ruby** **JP1, JPExp, JP3-4, LS** **Citygate GTN, NWP** **Ryckman Crk Storage** **T-South-So Crossing** **BioNatualGas** ***Incremental JP*** ***Pacific Connector*** **Satellite LNG** ***Mist Storage*** ***N-MAX-Stan-Madr*** ***WA Expansion*** **DSM as a supply** ***N-MAX Madr I-5*** In most of the runs for T-South/Southern Crossing, that resource was only selected at volumes of less than 2000 dths/day; the volume is insignificant and the nomination scheduling is operationally more complicated (Westcoast, Fortis, South Crossing, Nova, Foothills, GTN) . We see limited value in T-South Enhancement at this time. We left the same parameters as the "Limited Canadian supplies" the only noticeable change was an increase of T-South supplies moving to Kingsgate to serve Oregon load.
2930-1	T-South Enhancement/Southern Crossing	**Current Station2** **Incremental NOVA** **AECO Year, Seas, Spot** **Current NOVA-Foothills** **Incremental GTN** **Sumas Year, Seas, Spot** **Current GTN** **Incremental NWP** **Rockies Year, Seas, Spot** **Current NWP** **Incremental Ruby** **Station2 Year, Seas, Spot** **Current Ruby** **JP1, JPExp, JP3-4, LS** **Citygate GTN, NWP** **Ryckman Crk Storage** **T-South-So Crossing** **BioNatualGas** ***Incremental JP*** ***Pacific Connector*** **Satellite LNG** ***Mist Storage*** ***N-MAX-Stan-Madr*** ***WA Expansion*** **DSM as a supply** ***N-MAX Madr I-5*** When no restrictions were placed on Canadian supplies the model did select a higher level of volumes to run on T-South/Southern Crossing, It should be noted that this resource is bi-directional, and even though it was the lease expensive leg the model never selected the Kingsgate to Huntingdon/Sumas path. While the volumes have increased the nomination scheduling is operationally more complicated (Westcoast, Fortis, South Crossing, Nova, Foothills, GTN) . We see limited value in T-South Enhancement at this time. We left the same parameters as the "Limited Canadian supplies" the only noticeable change was an increase of T-South supplies moving to Kingsgate to serve Oregon load.

ID	SCENARIO NAME	KEY ELEMENTS IN SENDOUT SCENARIO and RESULTS DISCUSSION Medium Load Growth, Medium Gas Price Forecast, Average weather with Peak Event. All elements considered. All items in **RED** mean that elements was excluded from the scenario
2931	Pacific Northwest Regional (NMAX, WA Expansion, Palomar)	**Current Station2** **Current NOVA-Foothills** **Current GTN** **Current NWP** **Current Ruby** **Ryckman Crk Storage** ***Incremental JP*** ***Mist Storage*** **DSM as a supply** **Incremental NOVA** **Incremental GTN** **Incremental NWP** **Incremental Ruby** **JP1, JPExp, JP3-4, LS** ***T-South-So Crossing*** ***Pacific Connector*** **N-MAX-Stan-Madr** **N-MAX Madr I-5** **AECO Year, Seas, Spot** **Sumas Year, Seas, Spot** **Rockies Year, Seas, Spot** **Station2Year, Seas, Spot** **Citygate GTN, NWP** **BioNatualGas** **Satellite LNG** **WA Expansion** The N-MAX and WA Expansions seem attractive on the surface in that the projects are along our distribution system—however, there are too many unknowns between the various partners (FERC approval, rates, final paths) so it seems imprudent to include these resources at this time as viable resource candidates for the base case. We priced these at approximately 3X the NWP tariff; still the model looked at this a viable solution to Zone 30 problems (it selected up to 26,000 dths/day when given the ability to resize the resource). We will need to keep an eye on this project as it has the potential, combined with incremental NWP to address shortfalls in both 30S and 30W.
2932	Pacific Connector	**Current Station2** **Current NOVA-Foothills** **Current GTN** **Current NWP** **Current Ruby** **Ryckman Crk Storage** ***Incremental JP*** ***Mist Storage*** **DSM as a supply** **Incremental NOVA** **Incremental GTN** **Incremental NWP** **Incremental Ruby** **JP1, JPExp, JP3-4, LS** ***T-South-So Crossing*** **Pacific Connector** ***N-MAX-Stan-Madr*** ***N-MAX Madr I-5*** **AECO Year, Seas, Spot** **Sumas Year, Seas, Spot** **Rockies Year, Seas, Spot** **Station2Year, Seas, Spot** **Citygate GTN, NWP** **BioNatualGas** **Satellite LNG** ***WA Expansion*** Gas at Malin on its way to the LNG facility is not selected as there are multitude of less expensive resources (for completion purposes we treat Pacific Connector supplies at Malin priced at AECO Plus $4, to mimic the Asian competition for the supplies. Oddly enough, during the winter this supply was selected in leiu of citygate supplies on GTN. The was no notable increase in the incremental GTN backhaul so it appears the resource is has limited use.

ID	SCENARIO NAME	KEY ELEMENTS IN SENDOUT SCENARIO and RESULTS DISCUSSION Medium Load Growth, Medium Gas Price Forecast, Average weather with Peak Event. All elements considered. All items in **RED** mean that elements was excluded from the scenario
2933	Incremental JP	**Current Station2** **Current NOVA-Foothills** **Current GTN** **Current NWP** **Current Ruby** **Ryckman Crk Storage** **Incremental JP** ***Mist Storage*** **DSM as a supply** **Incremental NOVA** **Incremental GTN** **Incremental NWP** **Incremental Ruby** **JP1, JPExp, JP3-4, LS** ***T-South-So Crossing*** ***Pacific Connector*** ***N-MAX-Stan-Madr*** ***N-MAX Madr I-5*** **AECO Year, Seas, Spot** **Sumas Year, Seas, Spot** **Rockies Year, Seas, Spot** **Station2Year, Seas, Spot** **Citygate GTN, NWP** **BioNatualGas** **Satellite LNG** ***WA Expansion*** With similar pricing to JP Expansion, the model selected up to .3 Bcf of working inventory. We specifically tied the storage to Zone 30 to address the shortfalls in the area. As noted earlier, JP always seems to be desired by the model, but the likelihood of another block becoming available to us is not high at this point.

Table 7-4-A
SUMMARY OF PORTFOLIO ANALYSIS RESULTS by NPV

ID	SCENARIO NAME	NPV 20 YEAR PORTFOLIO COSTS IN $000s	AVERAGE COST PER THEM
2925	As Is Scenario	$ 2,457,117	$ 0.362529
2927	***Base Case***	***$ 2,457,398***	***$ 0.362902***
2928	Mist	$ 2,459,606	$ 0.363228
2928	Mist and Ryckman Creek	$ 2,469,211	$ 0.365308
2930-1	T-South Enhancement/Southern Crossing	$ 2,475,877	$ 0.365233
2931	Pacific Northwest Regional (NMAX, WA Expansion, Palomar)	$ 2,483,584	$ 0.366370
2933	Incremental JP	$ 2,491,648	$ 0.367564
2932	Pacific Connector	$ 2,491,747	$ 0.367579
2930	T-South Enhancement/Southern Crossing with Limited Canadian	$ 2,498,265	$ 0.367875
2929	Limited Canadian Imports	$ 2,498,317	$ 0.367882
2934	All in Case	$ 2,511,442	$ 0.372805

Peak Day Planning Results

Figures 7-B-1 through 7-B-3 show the projected peak day requirements compared to the Company's existing capacity resources under the medium load growth forecast. This same comparison was completed for both the high and low load growth forecasts and results of the zone by zone analysis are included in Appendix F. Under all growth scenarios, the company will require incremental peak day delivery in order to meet Cascade's anticipated peak loads located on the Northwest Pipeline system. This shortfall results from the expiration of a leased storage agreement that ended in April 2007. As discussed in Section 5, the company has acquired incremental Jackson Prairie storage inventory and withdrawal capability through the participation in the JP expansion open season, which took place during early 2006. The Company has also entered into a companion transportation agreement with Northwest Pipeline for the transportation to deliver the stored supplies under this agreement to Cascade's service territory. In the interim, Cascade will meet its peak day requirements with citygate peaking resources, acquiring vintage transportation returned to the pipeline, and where operational feasible, re-aligning existing contract delivery rights form

areas where we project excess capacity to areas where we forecast potential shortfalls.

Figure 7-B-1

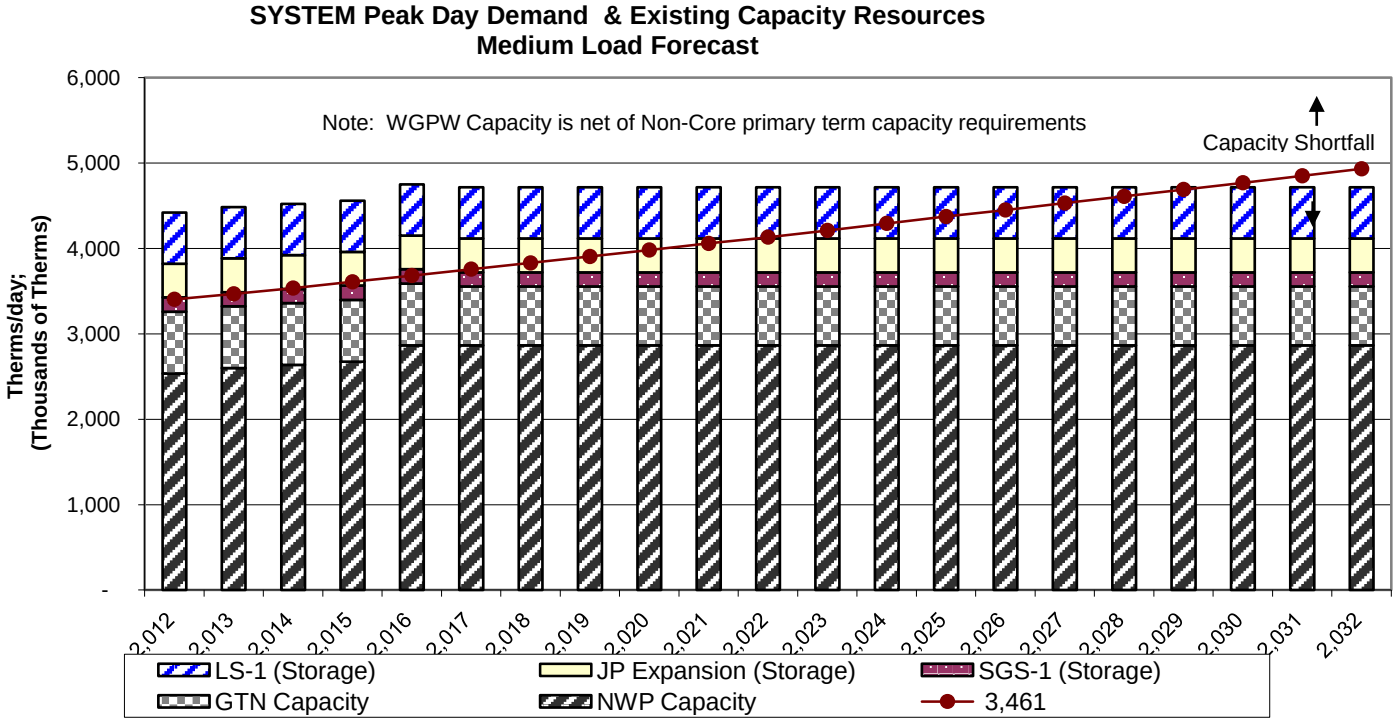
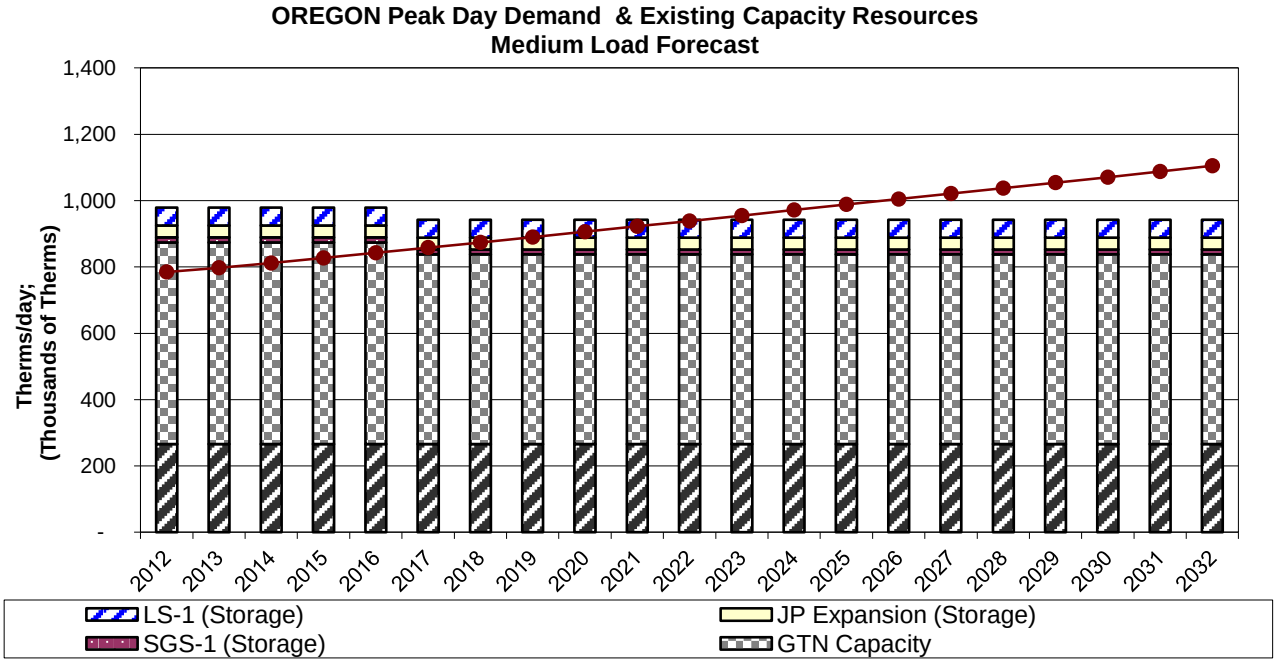
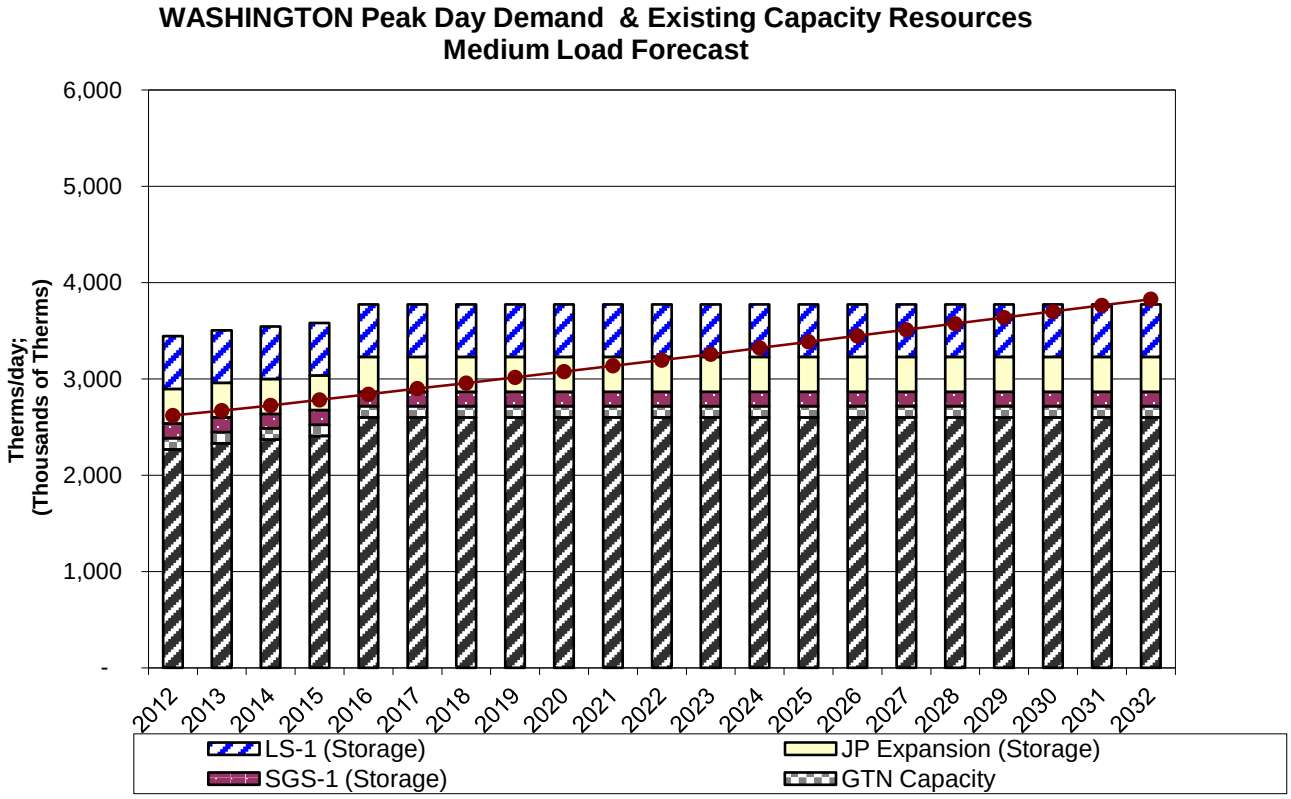


Figure 7-B-2



Note: WGPW Capacity is net of Non-Core primary term capacity requirements

Figure 7-B-3



Note: WGPW Capacity is net of Non-Core primary term capacity

For modeling purposes, the company included several capacity alternatives to meet peak planning needs. Based on the analysis, peak day requirements will be met through a blend of resources. For purposes of the graphical depiction, the company has shown the incremental conservation resources as a capacity resource. As shown in Figures 7-C-1 through 7-C-3, incremental pipeline capacity on NWP, GTN, along with a combination of citygate peaking, Ruby and satellite LNG alternatives will be used to meet growing peak requirements.

FIGURE 7-C-1

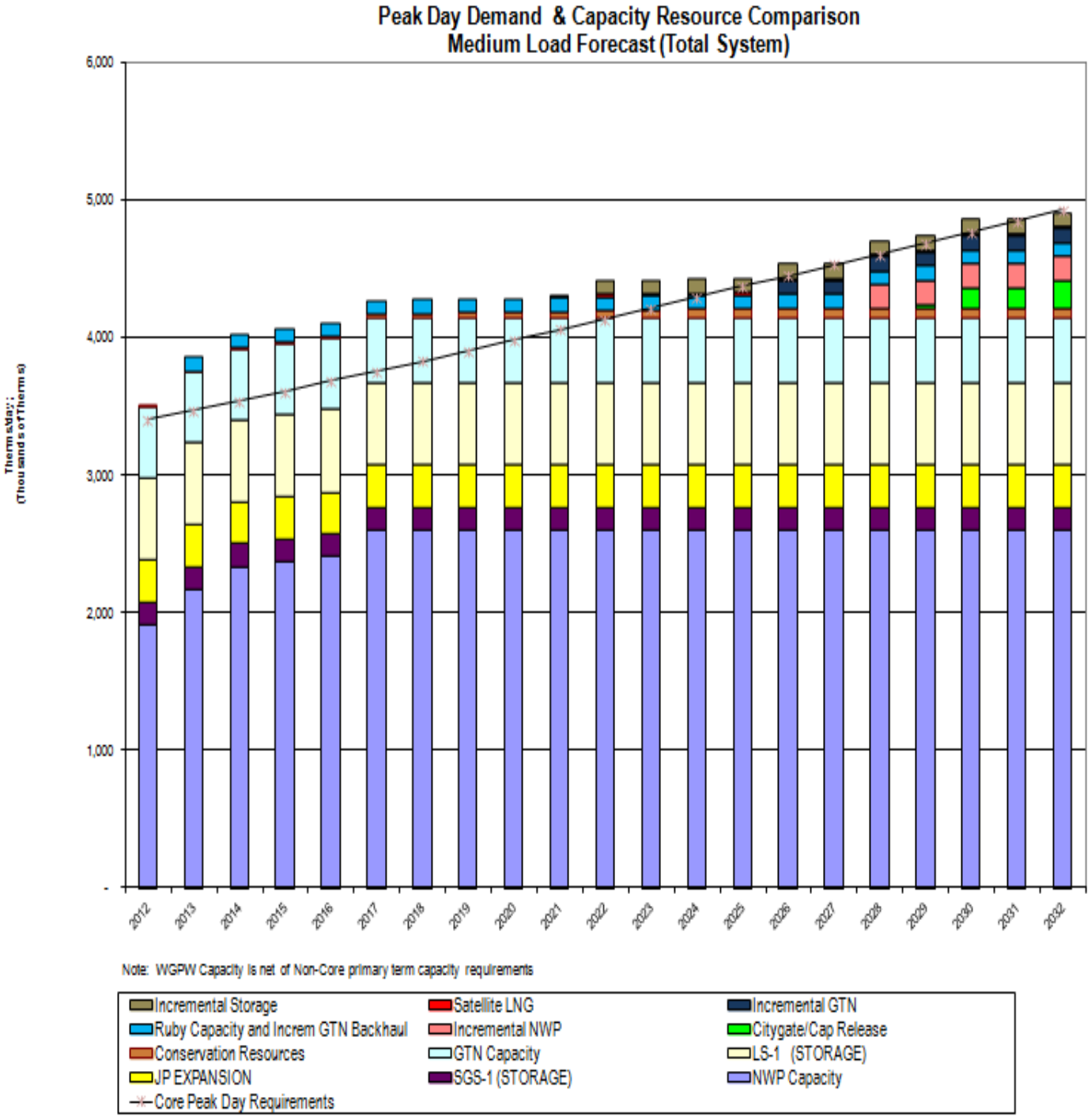

Peak Day Demand & Capacity Resource Comparison
Medium Load Forecast (Total System)
Therms/day ; ;
(Thousands of Therms)
6,000
5,000
4,000
3,000
2,000
1,000
-
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030
2031
2032
Note: WGPW Capacity is net of Non-Core primary term capacity requirements
Incremental Storage
Satellite LNG
Incremental GTN
Ruby Capacity and Increm GTN Backhaul
Incremental NWP
Citygate/Cap Release
Conservation Resources
GTN Capacity
LS-1 (STORAGE)
JP EXPANSION
SGS-1 (STORAGE)
NWP Capacity
Core Peak Day Requirements

FIGURE 7-C-2

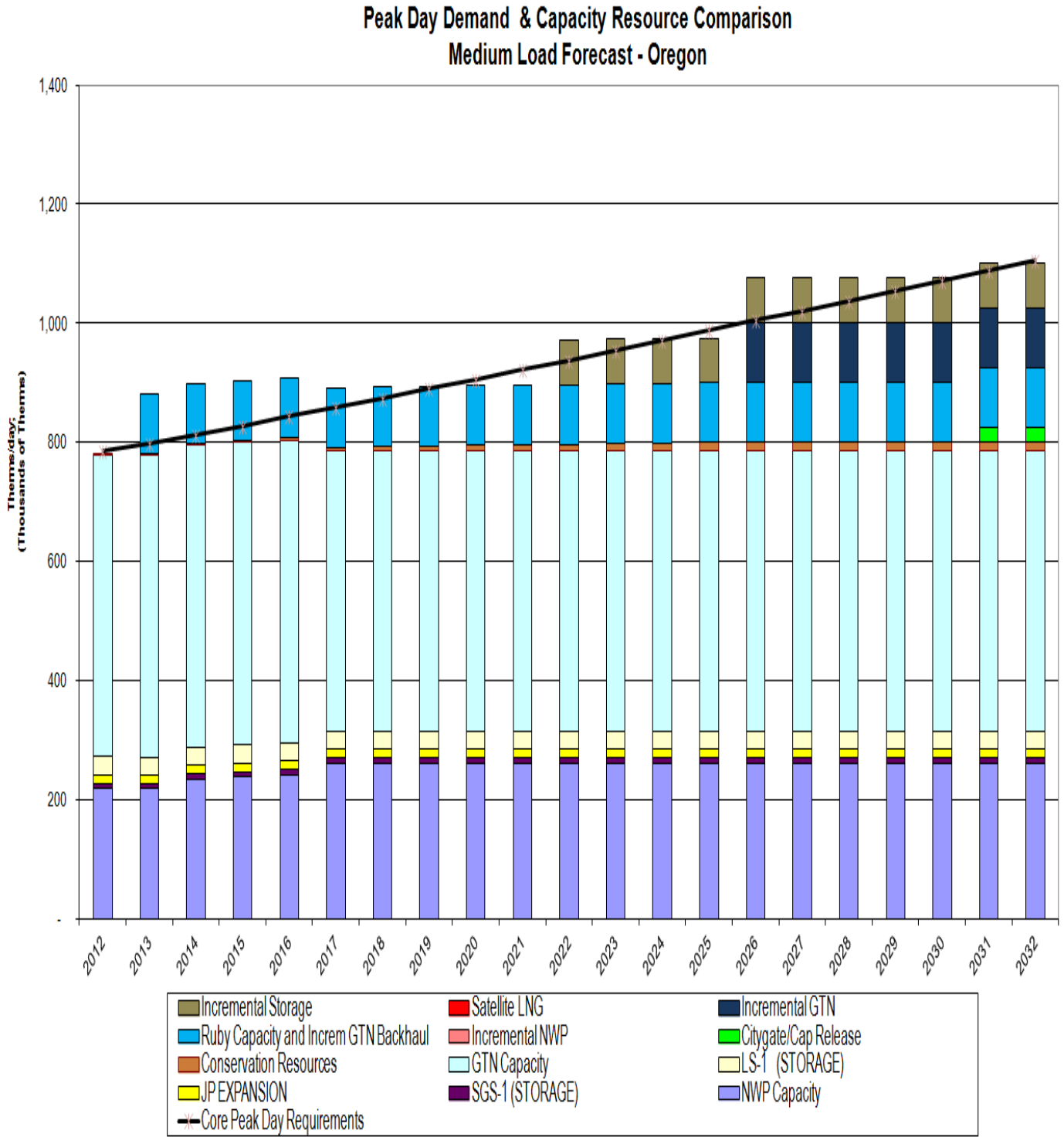
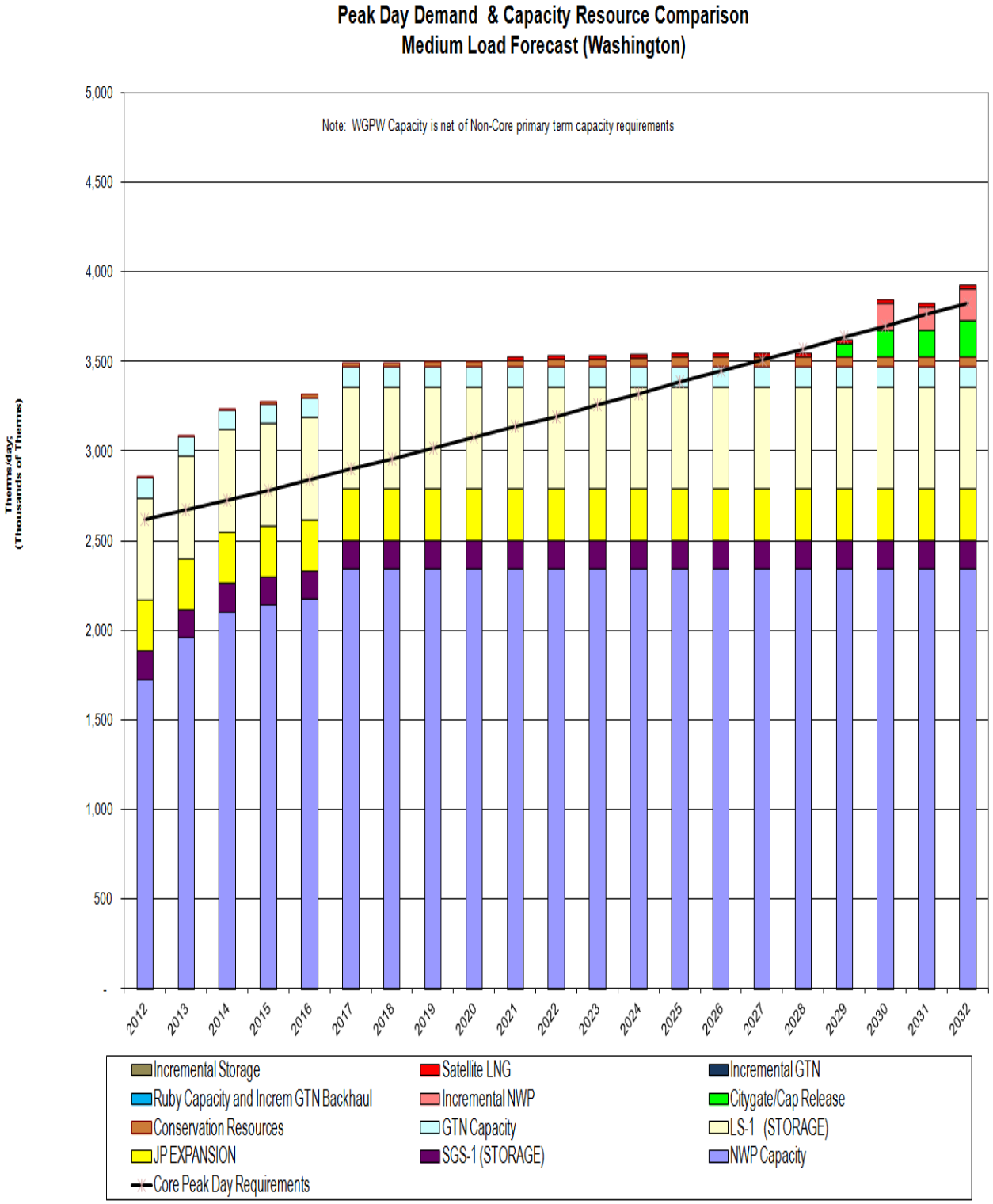

Peak Day Demand & Capacity Resource Comparison
Medium Load Forecast - Oregon
Therms/day;
(Thousands of Therms)
1,400
1,200
1,000
800
600
400
200
-
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030
2031
2032
Incremental Storage
Satellite LNG
Incremental GTN
Ruby Capacity and Increm GTN Backhaul
Incremental NWP
Citygate/Cap Release
Conservation Resources
GTN Capacity
LS-1 (STORAGE)
JP EXPANSION
SGS-1 (STORAGE)
NWP Capacity
Core Peak Day Requirements

FIGURE 7-C-3


Peak Day Demand & Capacity Resource Comparison
Medium Load Forecast (Washington)
Note: WGPW Capacity is net of Non-Core primary term capacity requirements
Therms/day (Thousands of Therms)
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
-
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030
2031
2032
Incremental Storage
Satellite LNG
Incremental GTN
Ruby Capacity and Increm GTN Backhaul
Incremental NWP
Citygate/Cap Release
Conservation Resources
GTN Capacity
LS-1 (STORAGE)
JP EXPANSION
SGS-1 (STORAGE)
NWP Capacity
Core Peak Day Requirements

Annual Load Requirements and Weather Uncertainty

The annual load requirements will vary dramatically based on the weather assumptions. Through the use of SENDOUT™ Monte-Carlo functionality, the company has the ability to analyze the impacts of weather on its load forecast. Figure 7-D shows the overall expected range of the load forecasts, before considering load reductions that can be achieved through incremental conservation programs. The chart provides the upper parameter, which is based on the assumption that the high load growth forecast occurs, with the lower parameter occurring under the low load growth forecast. Capturing the uncertainty around the medium load growth forecast was accomplished through SENDOUT™'s Monte-Carlo functionality. The Monte-Carlo simulation performed 200 draws, with each draw calculating the monthly load based on the weather as randomly determined by the model for each of the weather zones. Figure 7-E provides a more in depth look at the medium scenario results. The absolute maximum and absolute minimum amounts depict the minimum or maximum system demand from the 200 draws for a particular year. The absolute maximum/minimum does not represent any single results for the 20 year planning horizon.

Figure 7-D

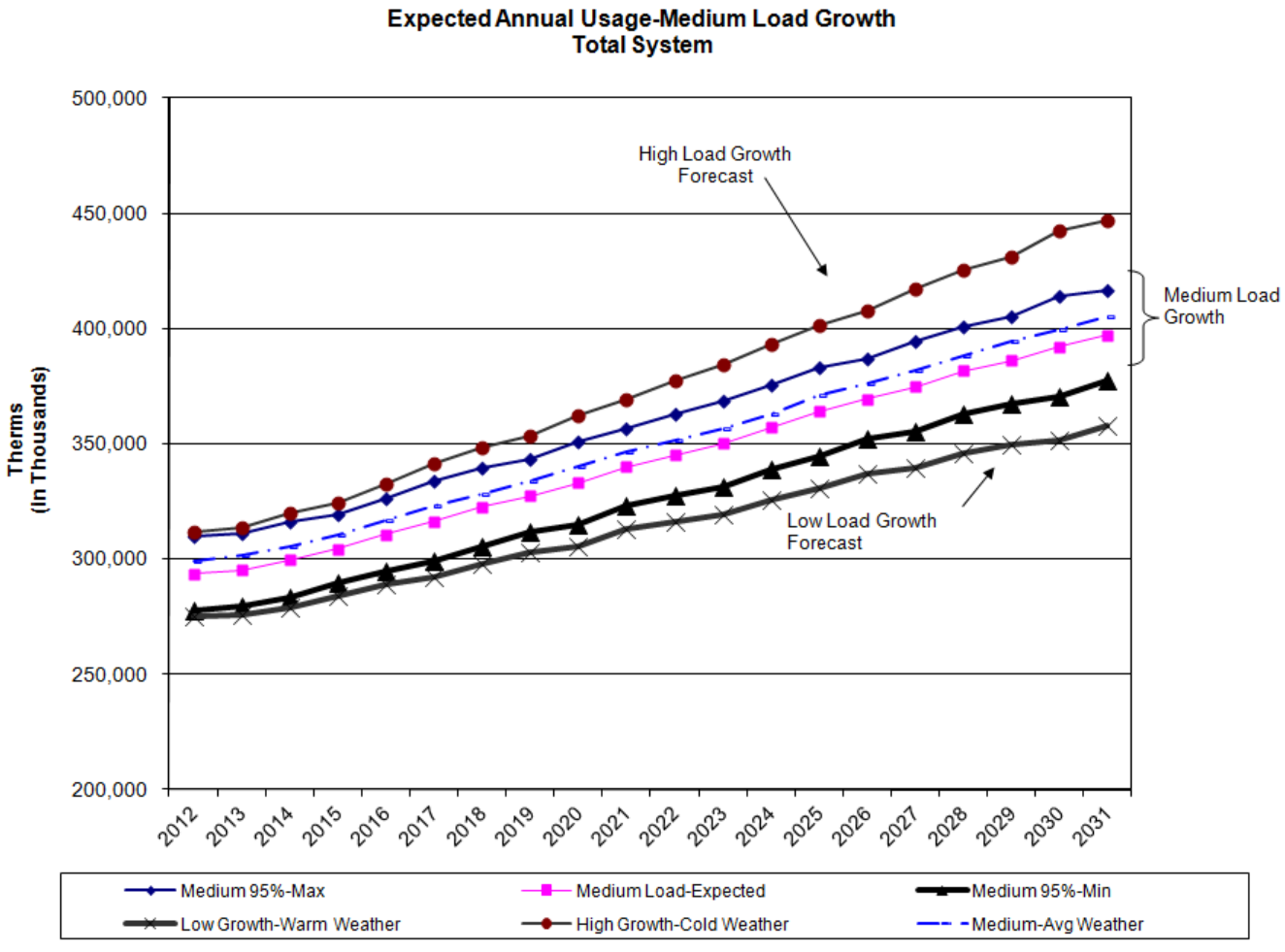
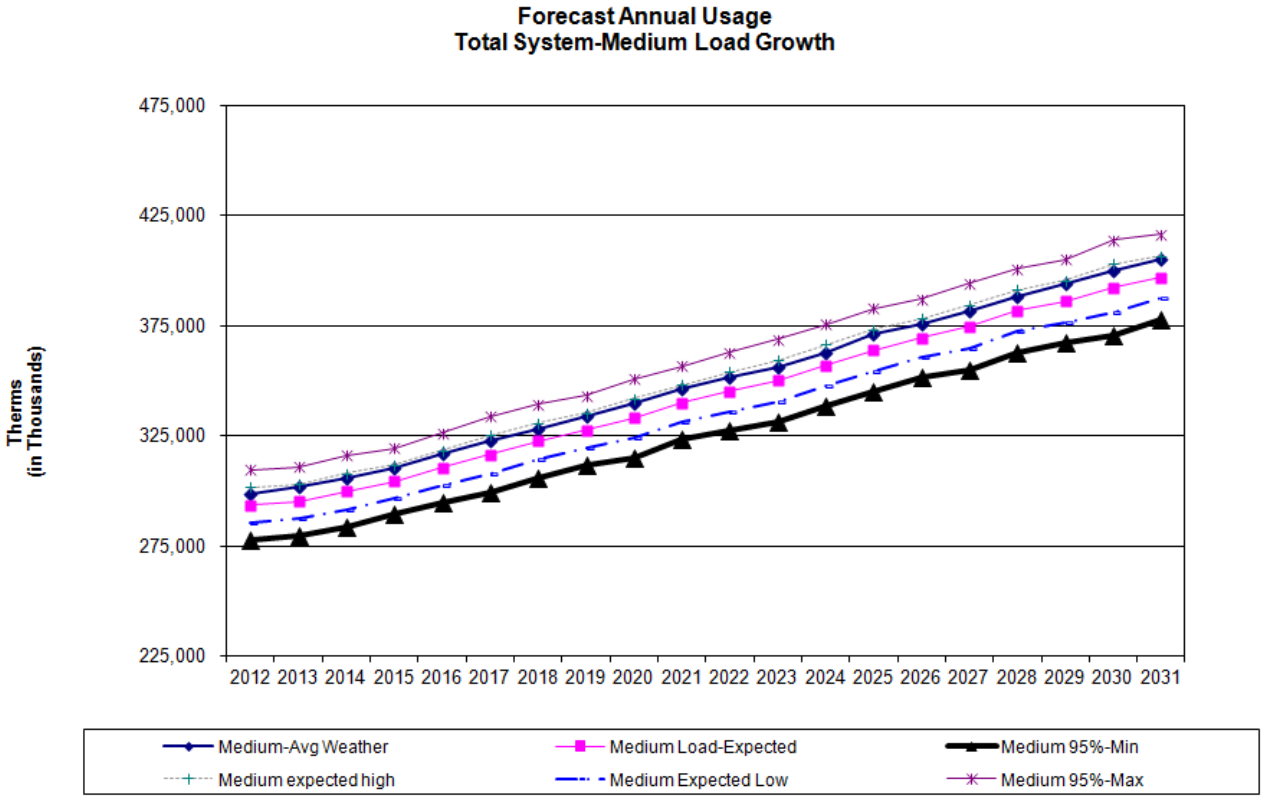


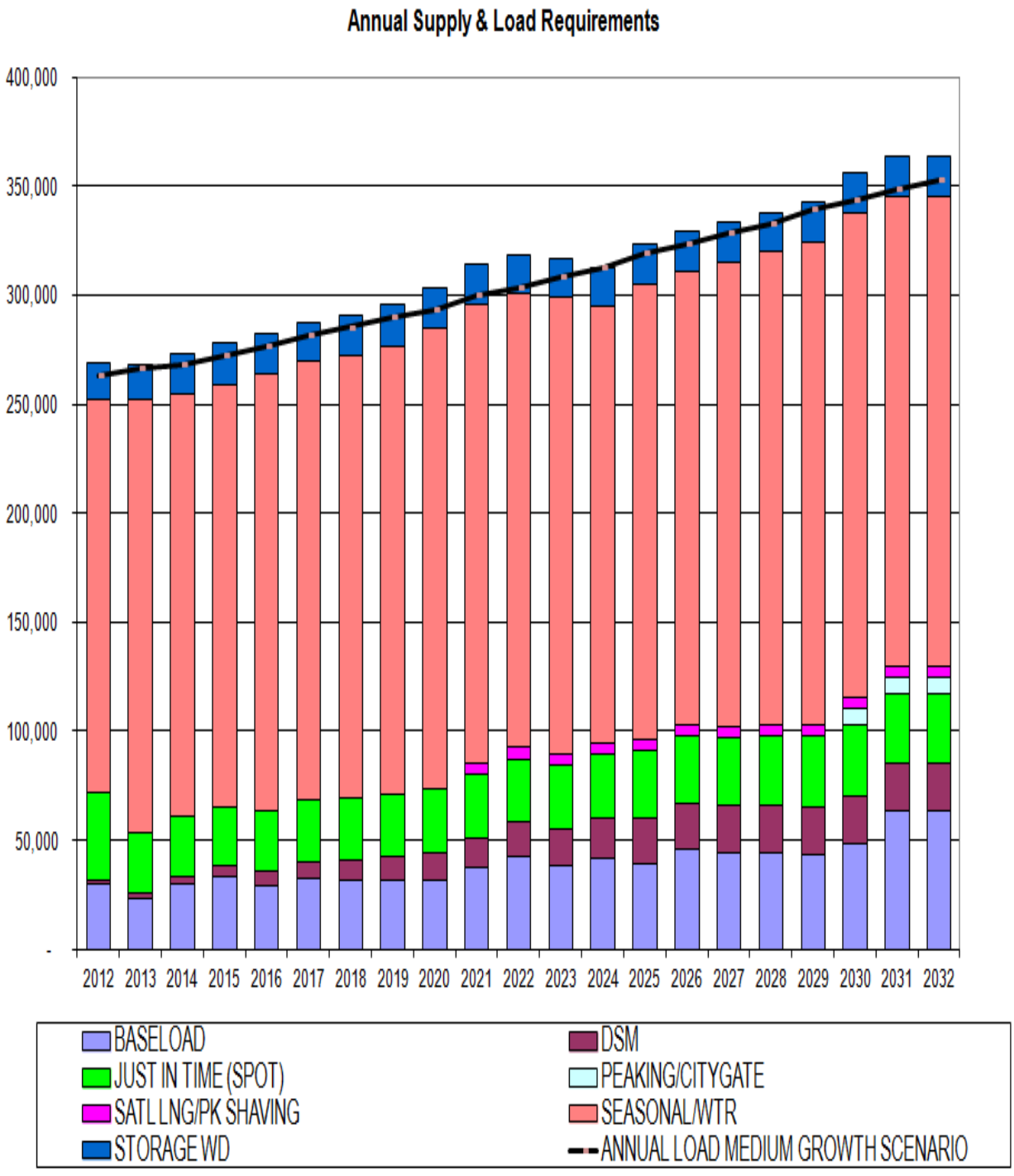
FIGURE 7-E



Additional tables and graphical analyses summarizing the weather and its impact on the annual load forecast are included in Appendix G-1.

To meet this demand, the company will need to acquire a blend of gas supply and conservation resources. For purposes of this plan, the company has estimated the level of conservation that is achievable over the course of the planning horizon which was discussed at length in Section 6. Figure 7-F shows how the company anticipates meeting the projected load over the planning horizon under the basecase scenario. Variations in the portfolio in order to meet actual load requirements during any year will occur primarily through the purchase of just-in-time, or spot gas purchases.

FIGURE 7-F


Annual Supply & Load Requirements
400,000
350,000
300,000
250,000
200,000
150,000
100,000
50,000
-
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032
BASELOAD
DSM
JUST IN TIME (SPOT)
PEAKING/CITYGATE
SATL LNG/PK SHAVING
SEASONAL/WTR
STORAGE WD
ANNUAL LOAD MEDIUM GROWTH SCENARIO

Impacts of Price Uncertainty and Overall System Costs

The ability to accurately forecast long-term gas prices is influenced by two different types of uncertainty: uncertainty related to long-term changes in the industry and uncertainty related to short-term gas price variability. Contributing to long-term uncertainty are long term supply and demand issues, including growth in demand for electric generation, changes in LNG import infrastructure, possible pipelines to bring Alaskan and other frontier gas supplies to market. Short-term price variability also affects the long-term predictability of gas prices. Even if long-term supply and demand outcomes are exactly as projected, actual prices in future months will still reflect variability due to short-term market conditions. In order to estimate this uncertainty, the Company utilized SENDOUT's™ Monte-Carlo functionality, to analyze the impacts of price on the portfolio costs. Since natural gas is becoming more of a national market, the company believes that volatility in the NYMEX prices will have a far larger influence on the portfolio's price volatility compared to the volatility in the AECO, Sumas and Rocky Mountain basin differentials.

Figure 7-G shows the overall expected range of the NYMEX prices over the planning horizon. The absolute maximum and absolute minimum amounts depicts the minimum amount or maximum amount from the 200 draws for a particular year. The Absolute maximum/minimum does not represent any single draw result for the 20 year planning horizon.

FIGURE 7-G

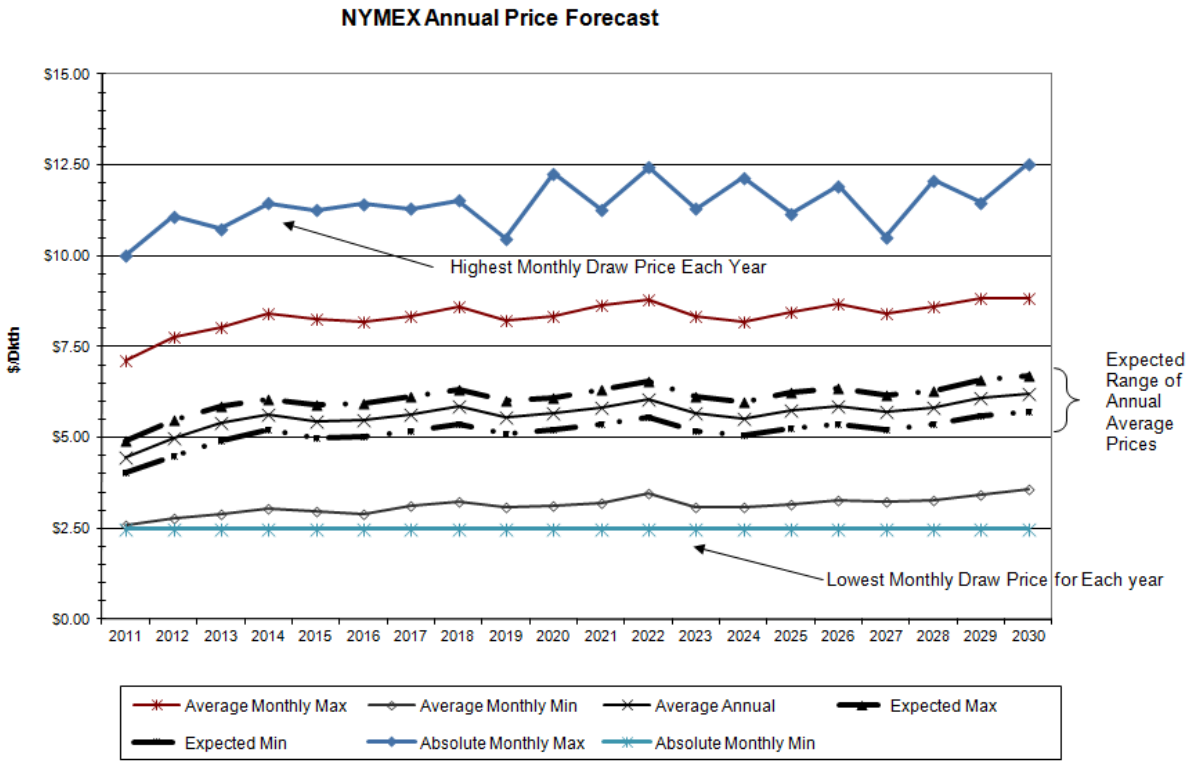


Figure 7-H compares the expected range of NYMEX prices from the Monte-Carlo analysis including the Environmental Externality costs that were discussed in Section 6. The highest anticipated NYMEX prices would result if the Scenario 3 Carbon Cost Adder was implemented in 2011. In that scenario, Carbon Cost Adder would increase the baseline forecasts by $1.85/dkth beginning in the first year, ramping up to $4.38/dkth over the 20 year planning horizon. The impact of the price volatility on the overall cost of the long-term portfolio is shown below in Figure 7-I. Further tables and graphical analyses summarizing the pricing simulations are included in Appendix G-2.

FIGURE 7-H
PRICE FORECAST-NYMEX
Average Annual Price

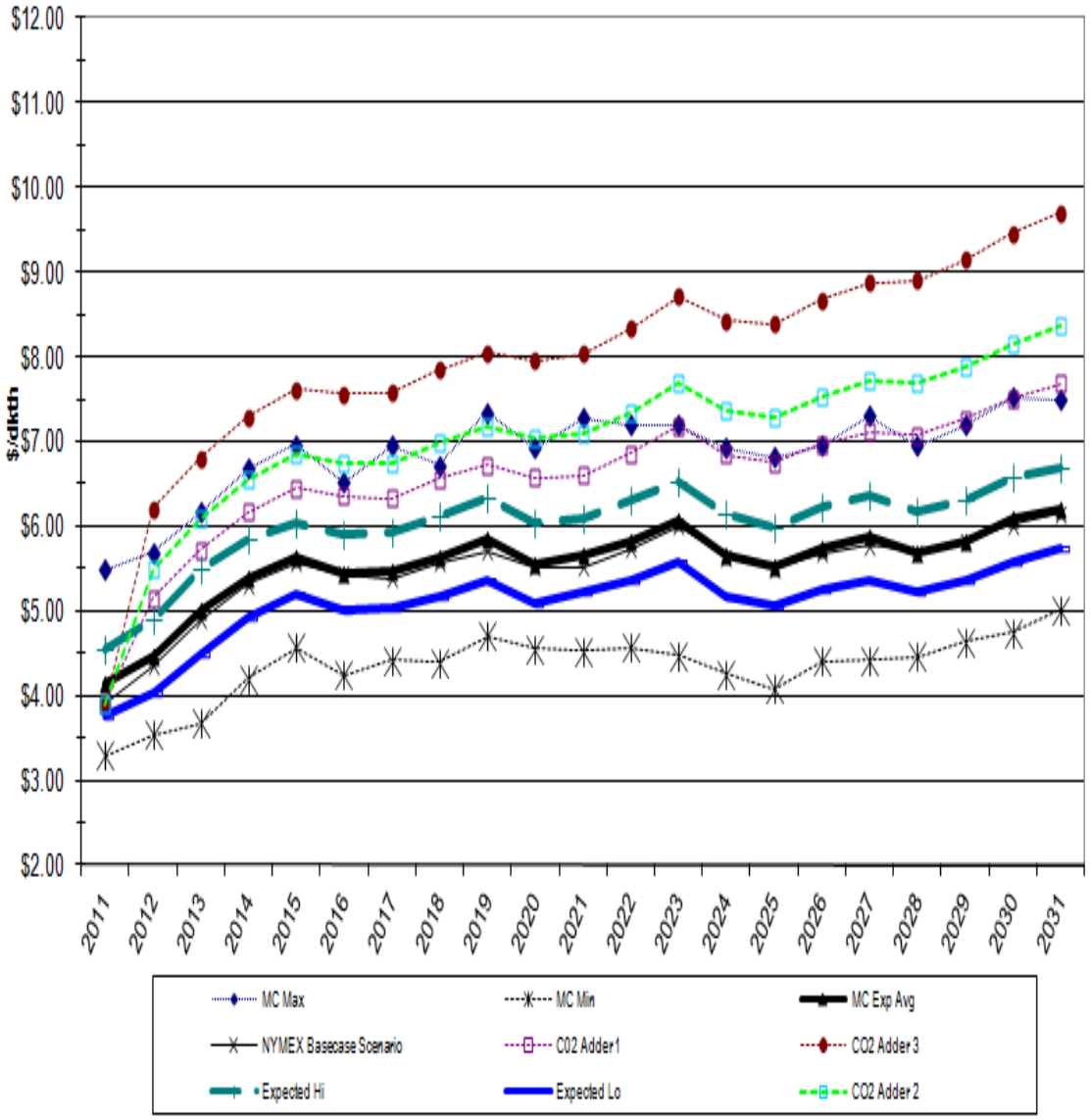


FIGURE 7-I
Annual Portfolio Cost

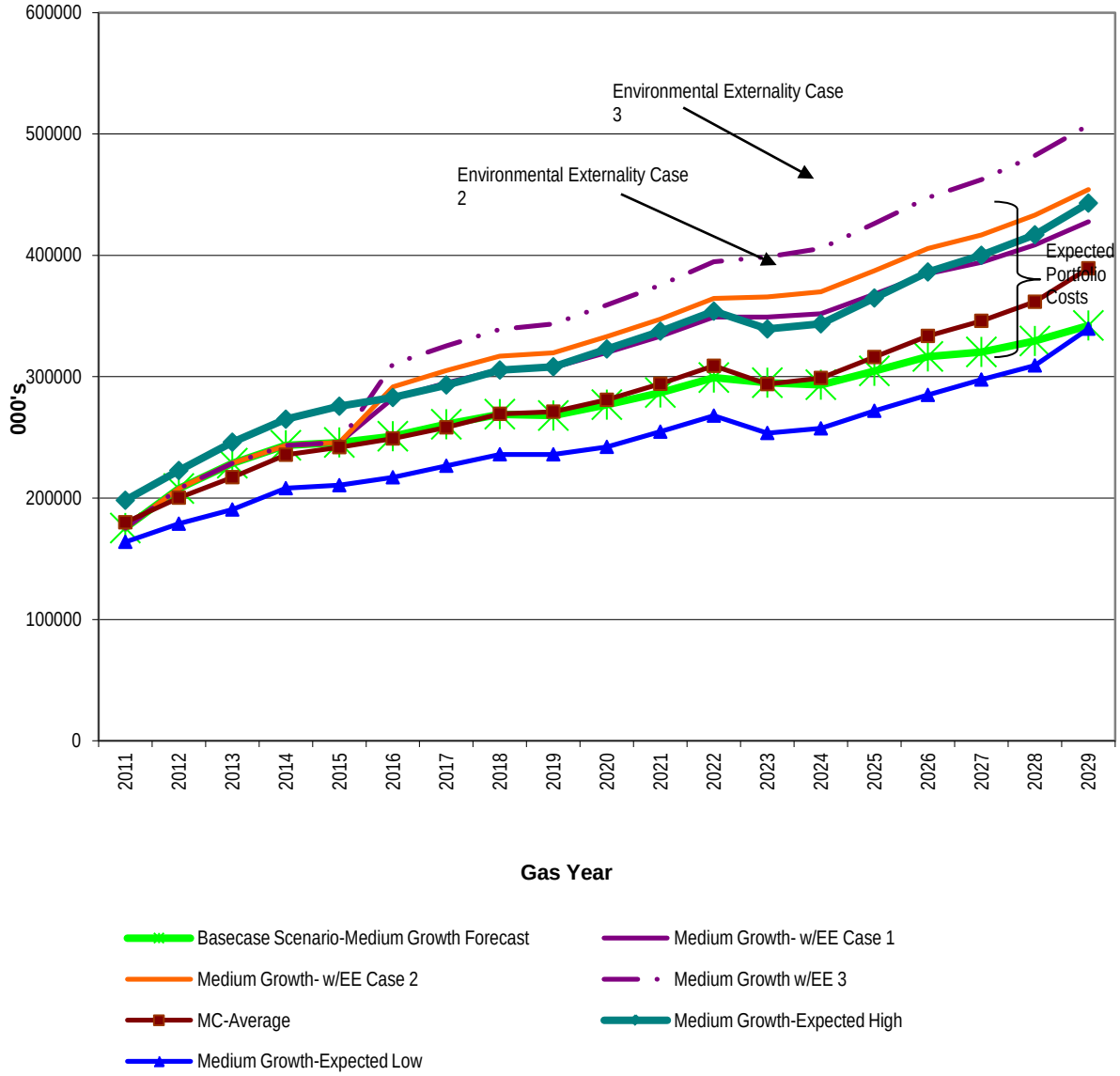
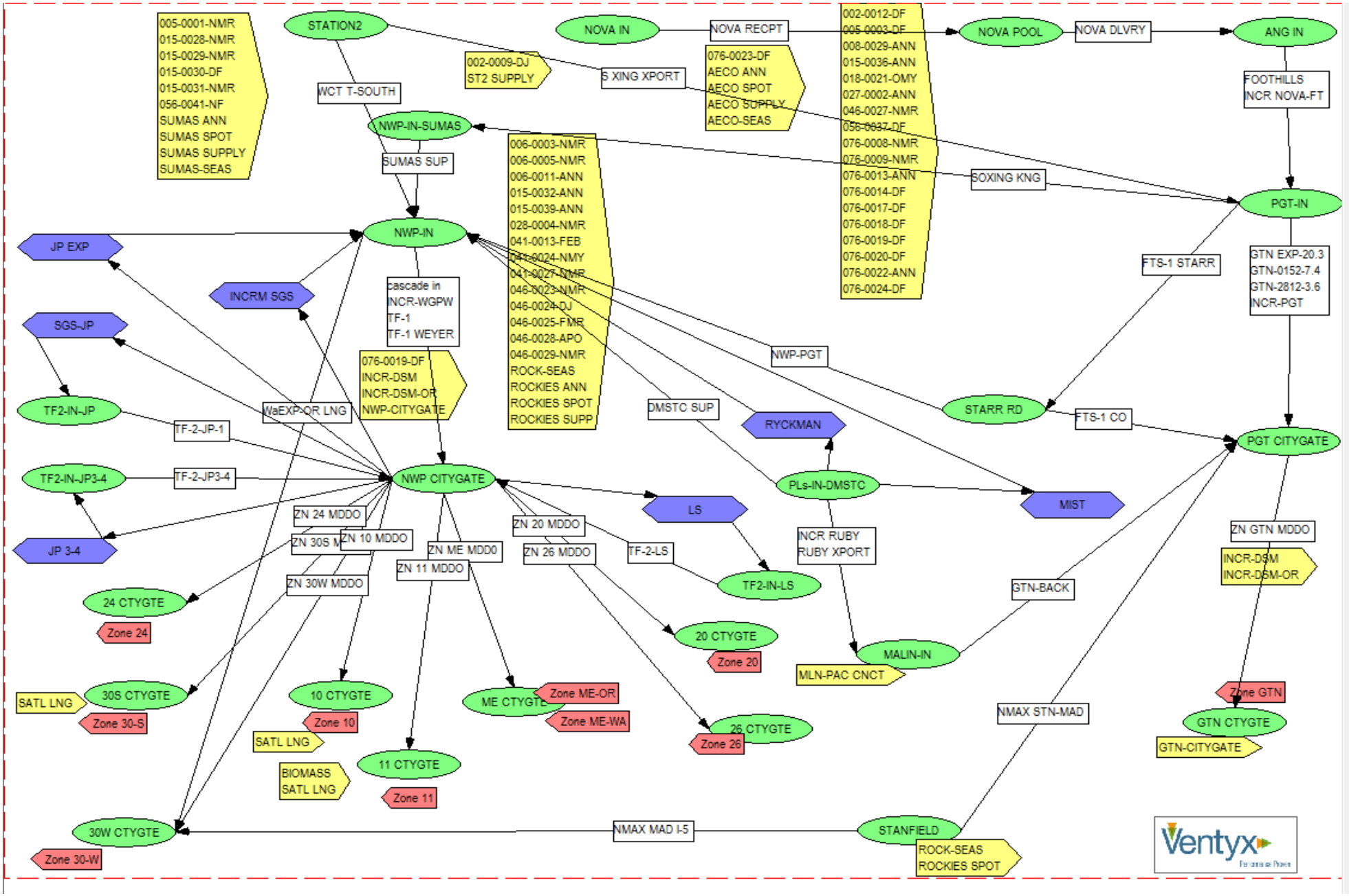


Table 7-5 summarizes the Net Present Value of the 20-year portfolio costs and average cost per therm for each of the scenarios and includes the anticipated range of costs from the Monte-Carlo modeling.

TABLE 7-5

Scenario Results	NPV 20 Year Portfolio Costs in $000s	Average Cost Per Therm
Basecase Scenario High Load Growth	$ 2,422,033	$ 0.3428218
Low Load Growth	$ 2,881,269	$ 0.3747721
Environmental Externalities Case 1	$ 2,358,400	$ 0.3621699
Environmental Externalities Case 2	$ 2,829,140	$ 0.4004878
Environmental Externalities Case 3	$ 2,666,852	$ 0.3774817
Simulation Results		
Monte Carlo Average	$ 2,442,229	$ 0.3666257
Monte Carlo Expeted High	$ 2,811,113	$ 0.4114786
Monte Carlo Expoecte Low	$ 2,152,417	$ 0.3318873

Based on the basecase results, Cascade has calculated its avoided costs. Cascade's avoided cost estimates represent the marginal cost of natural gas usage incremental to the forecasted demand. In other words, avoided cost is the unit cost to serve the next unit of demand during any given period of time. If demand-side management measures reduce customer demand, the Company is able to "avoid" certain commodity and transportation costs. This concept is important to assessing the proper value to demand-side management efforts. As discussed in Section 6, when calculating the avoided cost figures, the company includes an incremental cost advantage for conservation resources to recognize the non-quantifiable benefits associated with conservation such as price certainty and hedge value against future carbon costs.


005-0001-NMR
015-0028-NMR
015-0029-NMR
015-0030-DF
015-0031-NMR
056-0041-NF
SUMAS ANN
SUMAS SPOT
SUMAS SUPPLY
SUMAS-SEAS
STATION2
WCT T-SOUTH
NWP-IN-SUMAS
SUMAS SUP
002-0009-DJ
ST2 SUPPLY
S XING XPORT
NOVA IN
NOVA RECPT
076-0023-DF
AECO ANN
AECO SPOT
AECO SUPPLY
AECO-SEAS
002-0012-DF
005-0003-DF
008-0029-ANN
015-0036-ANN
018-0021-OMY
027-0002-ANN
046-0027-NMR
056-0037-DF
076-0008-NMR
076-0009-NMR
076-0013-ANN
076-0014-DF
076-0017-DF
076-0018-DF
076-0019-DF
076-0020-DF
076-0022-ANN
076-0024-DF
NOVA POOL
NOVA DLVRY
ANG IN
FOOTHILLS
NCR NOVA-FT
SOXING KNG
PGT-IN
006-0003-NMR
006-0005-NMR
006-0011-ANN
015-0032-ANN
015-0039-ANN
028-0004-NMR
041-0013-FEB
041-0024-NMY
041-0027-NMR
046-0023-NMR
046-0024-DJ
046-0025-FMR
046-0028-APO
046-0029-NMR
ROCK-SEAS
ROCKIES ANN
ROCKIES SPOT
ROCKIES SUPP
NWP-IN
JP EXP
INCRM SGS
SGS-JP
cascade in
NCR-WGPW
TF-1
TF-1 WEYER
076-0019-DF
INCR-DSM
INCR-DSM-OR
NWP-CITYGATE
NWP-PGT
DMSTC SUP
RYCKMAN
FTS-1 STARR
GTN EXP-20.3
GTN-0152-7.4
GTN-2812-3.6
NCR-PGT
STARR RD
FTS-1 CO
PGT CITYGATE
TF2-IN-JP
TF-2-JP-1
WaEXP-OR LNG
TF2-IN-JP3-4
TF-2-JP3-4
NWP CITYGATE
PLs-IN-DMSTC
MIST
LS
JP 3-4
ZN 24 MDDO
ZN 30S M
ZN 10 MDDO
ZN ME MDD0
ZN 11 MDDO
ZN 20 MDDO
ZN 26 MDDO
TF-2-LS
NCR RUBY
RUBY XPORT
ZN GTN MDDO
INCR-DSM
INCR-DSM-OR
ZN 30W MDDO
TF2-IN-LS
GTN-BACK
24 CTYGTE
Zone 24
20 CTYGTE
Zone 20
MALIN-IN
MLN-PAC CNCT
SATL LNG
30S CTYGTE
Zone 30-S
10 CTYGTE
Zone 10
ME CTYGTE
Zone ME-OR
Zone ME-WA
26 CTYGTE
Zone 26
Zone GTN
GTN CTYGTE
GTN-CITYGATE
NMAX STN-MAD
SATL LNG
BIOMASS
SATL LNG
11 CTYGTE
Zone 11
30W CTYGTE
Zone 30-W
NMAX MAD I-5
STANFIELD
ROCK-SEAS
ROCKIES SPOT
Ventyx

	EXISTING SUPPLY PORTFOLIO (AUGUST 2012)															
	MODEL NAME	TERMINATION	EST AVG PRICE	PRICE FORMULA		Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13
	DESCRIPTION	DATE	PER DAY		POINT	30	31	31	28	31	30	31	30	31	31	30
1	002-0009-DJ	1/31/2013	$ 3.0884	IF S plus $.12	SUMAS		5000	5000								
2	002-012-DF	2/28/2013	$ 5.7400	Fixed	NOVA	0	700	1000	1000	0	0	0	0	0	0	0
3	005-0001-NMR	3/31/2014	$ 3.5667	IF SUMAS + $.0075	SUMAS	1250	3750	3750	8750	1250						
4	005-0003-DF	2/28/2013	$ 4.5200	Fixed	NOVA	0	700	1000	1000	0	0	0	0	0	0	0
5	006-0003-NMR	3/31/2013	$ 3.0459	IF RM - $.01	ROCKIES	10000	10000	10000	10000	10000						
6	006-0005-NMR	3/31/2013	$ 3.0309	IF RM -$.025	ROCKIES	5000	5000	5000	5000	5000						
7	006-0011-ANN	10/31/2014	$ 4.7250		SUMAS	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
8	008-0029-ANN	10/31/2014	$ 2.8936	CGPR - $.17	DET	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
9	015-0028-NMR	3/31/2014	$ 3.0103	IF SUMAS-$.39	SUMAS	2250	2250	2250	2250	2250						
10	015-0029-NMR	3/31/2014	$ 2.9903	IF SUMAS- $.41	SUMAS	8000	8000	8000	8000	8000						
11	015-0030-DF	2/28/2014	$ 2.7161	IF SUMAS -$.65	SUMAS		2500	2500	2500							
12	015-0031-NMR	3/31/2013	$ 2.7881	IF SUMAS -$.45	SUMAS	7500	7500	7500	7500	7500						
13	015-0032-ANN	10/31/2014	$ 4.8851	<$6.51>$7.26 dth/day	ROCKIES	2500	2500	2500	2500	2500	1000	1000	1000	1000	1000	1000
14	015-0036-ANN	10/31/2014	$ 3.4043	CGPR Plus $.01 Plus upstrea	KING	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
15	015-0039-ANN	10/31/2014	$ 4.2900	IF RM -$1.0 FLR $4.29	ROCKIES	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
16	027-0002-ANN	10/31/2014	$ 4.5925		NOVA	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
17	028-0004-NMR	3/31/2013	$ 4.7500	Fixed	ROCKIES	1500	5000	2500	5000	1500	0	0	0	0	0	0
18	041-0013-FEB	2/28/2013	$ 2.8809	IF RM Plus $.005	ROCKIES				3000							
19	041-0024-NMY	5/31/2013	$ 3.0180	IF RM -$.01	ROCKIES	2000	2000	2000	2000	2000	2000	2000				
20	041-0027-NMR	10/31/2014	$ 4.6850		ROCKIES	3000	3000	3000	3000	3000						
21	046-0023-NMR	3/31/2013	$ 2.7959	IF RM -$.08	ROCKIES	5000	5000	5000	5000	5000						
22	046-0024-DJ	1/31/2014	$ 3.1997	IF RM Less $.08	ROCKIES											
23	046-0025-FMR	3/31/2014	$ 3.2701	IF RM +$.01	ROCKIES				4000	4000						
24	046-0027-NMR	3/31/2014	$ 3.6814	IF RM +$.01	ROCKIES											
25	046-0028-AO	10/31/2013	$ 3.0345	IF RM-.02	ROCKIES	0	0	0	0	0	10000	5000	5000	5000	5000	5000
26	046-0029-NMR	3/31/2013	$ 2.9359	IF RM +$.01	ROCKIES	1000	5000	5000	5000	1000						
27	056-0037-DF	2/28/2013	$ 4.5500	Fixed	NOVA	0	700	1000	1000	0	0	0	0	0	0	0
28	056-0041-NF	2/28/2013	$ 3.0591	IF SUMAS + $.0275		2000	2000	2000	2000							
29	076-0008-NMR	3/31/2014	$ 2.9353	CGPR + $.015	NOVA	2000	2000	2000	2000	2000						
30	076-0009-NMR	2/28/2014	$ 2.8966	CGPR + $.015	NOVA	1000	3000	3000	3000	1000						
31	076-0013-ANN	10/31/2013	$ 5.7660	Fixed $5.766	NOVA	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
32	076-0014-DF	2/28/2013	$ 5.4900	Fixed	NOVA	0	700	1000	1000	0	0	0	0	0	0	0
33	076-0017-DF	2/28/2013	$ 5.4960	Fixed	NOVA	0	700	1000	1000	0	0	0	0	0	0	0
34	076-0020-DF	2/28/2013	$ 5.4360	Fixed	NOVA	0	700	1000	1000	0	0	0	0	0	0	0
35	076-0018-DF	2/28/2013	$ 5.1060	Fixed	NOVA	0	700	1000	1000	0	0	0	0	0	0	0
36	076-0019-DF	2/28/2013	$ 5.7460	Fixed	NOVA	0	700	1000	1000	0	0	0	0	0	0	0
37	076-0022-ANN	10/31/2013	$ 5.9960	Fixed $5.996	SUMAS	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
38	076-0023-DF	2/28/2013	$ 4.6560	Fixed	NOVA	0	700	1000	1000	0	0	0	0	0	0	0
39	076-0024-DF	2/28/2013	$ 4.4560	Fixed	NOVA	0	700	1000	1000	0	0	0	0	0	0	0
40	018-0021-OMY	10/31/2013	$ 5.5160	Fixed $5.516	SUMAS	500	500	500	500	500	6000	3000	0	0	0	0

	EXISTING SUPPLY PORTFOLIO (AUGUST 2012)															
	MODEL NAME	TERMINATION	EST AVG PRICE	PRICE FORMULA		Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14
	DESCRIPTION	DATE	PER DAY		POINT	31	30	31	31	28	31	30	31	30	31	31
1	002-0009-DJ	1/31/2013	$ 3.0884	IF S plus $.12	SUMAS											
2	002-012-DF	2/28/2013	$ 5.7400	Fixed	NOVA	0										
3	005-0001-NMR	3/31/2014	$ 3.5667	IF SUMAS + $.0075	SUMAS		750	3750	3750	3750	750					
4	005-0003-DF	2/28/2013	$ 4.5200	Fixed	NOVA	0										
5	006-0003-NMR	3/31/2013	$ 3.0459	IF RM - $.01	ROCKIES											
6	006-0005-NMR	3/31/2013	$ 3.0309	IF RM -$.025	ROCKIES											
7	006-0011-ANN	10/31/2014	$ 4.7250		SUMAS	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
8	008-0029-ANN	10/31/2014	$ 2.8936	CGPR - $.17	DET	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
9	015-0028-NMR	3/31/2014	$ 3.0103	IF SUMAS-$.39	SUMAS		2250	2250	2250	2250	2250					
10	015-0029-NMR	3/31/2014	$ 2.9903	IF SUMAS- $.41	SUMAS		8000	8000	8000	8000	8000					
11	015-0030-DF	2/28/2014	$ 2.7161	IF SUMAS -$.65	SUMAS			2500	2500	2500						
12	015-0031-NMR	3/31/2013	$ 2.7881	IF SUMAS -$.45	SUMAS											
13	015-0032-ANN	10/31/2014	$ 4.8851	<$6.51>$7.26 dth/day	ROCKIES	1000	2500	2500	2500	2500	2500	1000	1000	1000	1000	1000
14	015-0036-ANN	10/31/2014	$ 3.4043	CGPR Plus $.01 Plus upstrea	KING	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
15	015-0039-ANN	10/31/2014	$ 4.2900	IF RM -$1.0 FLR $4.29	ROCKIES	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
16	027-0002-ANN	10/31/2014	$ 4.5925		NOVA	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
17	028-0004-NMR	3/31/2013	$ 4.7500	Fixed	ROCKIES	0										
18	041-0013-FEB	2/28/2013	$ 2.8809	IF RM Plus $.005	ROCKIES											
19	041-0024-NMY	5/31/2013	$ 3.0180	IF RM -$.01	ROCKIES											
20	041-0027-NMR	10/31/2014	$ 4.6850		ROCKIES		3000	3000	3000	3000	3000					
21	046-0023-NMR	3/31/2013	$ 2.7959	IF RM -$.08	ROCKIES											
22	046-0024-DJ	1/31/2014	$ 3.1997	IF RM Less $.08	ROCKIES			5000	5000							
23	046-0025-FMR	3/31/2014	$ 3.2701	IF RM +$.01	ROCKIES					4000	4000					
24	046-0027-NMR	3/31/2014	$ 3.6814	IF RM +$.01	ROCKIES		4000	6000	6000	6000	4000					
25	046-0028-AO	10/31/2013	$ 3.0345	IF RM-.02	ROCKIES	10000										
26	046-0029-NMR	3/31/2013	$ 2.9359	IF RM +$.01	ROCKIES											
27	056-0037-DF	2/28/2013	$ 4.5500	Fixed	NOVA	0										
28	056-0041-NF	2/28/2013	$ 3.0591	IF SUMAS + $.0275												
29	076-0008-NMR	3/31/2014	$ 2.9353	CGPR + $.015	NOVA		2000	2000	2000	2000	2000					
30	076-0009-NMR	2/28/2014	$ 2.8966	CGPR + $.015	NOVA			500	500	500						
31	076-0013-ANN	10/31/2013	$ 5.7660	Fixed $5.766	NOVA	1000										
32	076-0014-DF	2/28/2013	$ 5.4900	Fixed	NOVA	0										
33	076-0017-DF	2/28/2013	$ 5.4960	Fixed	NOVA	0										
34	076-0020-DF	2/28/2013	$ 5.4360	Fixed	NOVA	0										
35	076-0018-DF	2/28/2013	$ 5.1060	Fixed	NOVA	0										
36	076-0019-DF	2/28/2013	$ 5.7460	Fixed	NOVA	0										
37	076-0022-ANN	10/31/2013	$ 5.9960	Fixed $5.996	SUMAS	1000										
38	076-0023-DF	2/28/2013	$ 4.6560	Fixed	NOVA	0										
39	076-0024-DF	2/28/2013	$ 4.4560	Fixed	NOVA	0										
40	018-0021-OMY	10/31/2013	$ 5.5160	Fixed $5.516	SUMAS	3000										

	EXISTING SUPPLY PORTFOLIO (AUGUST 2012)						
	MODEL NAME	TERMINATION	EST AVG PRICE	PRICE FORMULA		Sep-14	Oct-14
	DESCRIPTION	DATE	PER DAY		POINT	30	31
1	002-0009-DJ	1/31/2013	$ 3.0884	IF S plus $.12	SUMAS		
2	002-012-DF	2/28/2013	$ 5.7400	Fixed	NOVA		
3	005-0001-NMR	3/31/2014	$ 3.5667	IF SUMAS + $.0075	SUMAS		
4	005-0003-DF	2/28/2013	$ 4.5200	Fixed	NOVA		
5	006-0003-NMR	3/31/2013	$ 3.0459	IF RM - $.01	ROCKIES		
6	006-0005-NMR	3/31/2013	$ 3.0309	IF RM -$.025	ROCKIES		
7	006-0011-ANN	10/31/2014	$ 4.7250		SUMAS	2000	2000
8	008-0029-ANN	10/31/2014	$ 2.8936	CGPR - $.17	DET	1000	1000
9	015-0028-NMR	3/31/2014	$ 3.0103	IF SUMAS-$.39	SUMAS		
10	015-0029-NMR	3/31/2014	$ 2.9903	IF SUMAS- $.41	SUMAS		
11	015-0030-DF	2/28/2014	$ 2.7161	IF SUMAS -$.65	SUMAS		
12	015-0031-NMR	3/31/2013	$ 2.7881	IF SUMAS -$.45	SUMAS		
13	015-0032-ANN	10/31/2014	$ 4.8851	<$6.51>$7.26 dth/day	ROCKIES	1000	1000
14	015-0036-ANN	10/31/2014	$ 3.4043	CGPR Plus $.01 Plus upstrear	KING	2500	2500
15	015-0039-ANN	10/31/2014	$ 4.2900	IF RM -$1.0 FLR $4.29	ROCKIES	1000	1000
16	027-0002-ANN	10/31/2014	$ 4.5925		NOVA	2500	2500
17	028-0004-NMR	3/31/2013	$ 4.7500	Fixed	ROCKIES		
18	041-0013-FEB	2/28/2013	$ 2.8809	IF RM Plus $.005	ROCKIES		
19	041-0024-NMY	5/31/2013	$ 3.0180	IF RM -$.01	ROCKIES		
20	041-0027-NMR	10/31/2014	$ 4.6850		ROCKIES		3000
21	046-0023-NMR	3/31/2013	$ 2.7959	IF RM -$.08	ROCKIES		
22	046-0024-DJ	1/31/2014	$ 3.1997	IF RM Less $.08	ROCKIES		
23	046-0025-FMR	3/31/2014	$ 3.2701	IF RM +$.01	ROCKIES		
24	046-0027-NMR	3/31/2014	$ 3.6814	IF RM +$.01	ROCKIES		
25	046-0028-AO	10/31/2013	$ 3.0345	IF RM-.02	ROCKIES		
26	046-0029-NMR	3/31/2013	$ 2.9359	IF RM +$.01	ROCKIES		
27	056-0037-DF	2/28/2013	$ 4.5500	Fixed	NOVA		
28	056-0041-NF	2/28/2013	$ 3.0591	IF SUMAS + $.0275			
29	076-0008-NMR	3/31/2014	$ 2.9353	CGPR + $.015	NOVA		
30	076-0009-NMR	2/28/2014	$ 2.8966	CGPR + $.015	NOVA		
31	076-0013-ANN	10/31/2013	$ 5.7660	Fixed $5.766	NOVA		
32	076-0014-DF	2/28/2013	$ 5.4900	Fixed	NOVA		
33	076-0017-DF	2/28/2013	$ 5.4960	Fixed	NOVA		
34	076-0020-DF	2/28/2013	$ 5.4360	Fixed	NOVA		
35	076-0018-DF	2/28/2013	$ 5.1060	Fixed	NOVA		
36	076-0019-DF	2/28/2013	$ 5.7460	Fixed	NOVA		
37	076-0022-ANN	10/31/2013	$ 5.9960	Fixed $5.996	SUMAS		
38	076-0023-DF	2/28/2013	$ 4.6560	Fixed	NOVA		
39	076-0024-DF	2/28/2013	$ 4.4560	Fixed	NOVA		
40	018-0021-OMY	10/31/2013	$ 5.5160	Fixed $5.516	SUMAS		

	ALTERNATE SUPPLY RESOURCES (AUGUST 2012)											
	MODEL NAME	**CATEGORY**	**OTHER CAT INFO**	**RECEIPT PT(S)**	**DELIVERY PT(S)**	**PRICE INDEX**	**INDEX DIFFERENTIAL/EST PRICE**	**COMM ADDER**	**DEMAND CHARGE**	**DEAL START DATE**	**DEAL END DATE**	**MDQ IN DTHS**
1	FIRM IFSUM	ANNUAL	EXISTING	SUMAS	NWP, GTN	IFERC SUMAS	$ 0.0400	YES		RMIX for EXISTING	3/31/2014	VARIABLE
2	FIRM IF RM	ANNUAL	EXISTING	ROCKIES	NWP, GTN	IFERC ROCKIES	$ 0.0300	YES		RMIX for 2012	3/31/2014	VARIABLE
3	FIRM NYM NIT	ANNUAL	EXISTING	AECO	NWP, GTN	NYMEX HH	$ 0.0150	YES		RMIX for 2012	2/28/2014	VARIABLE
4	FIRM CGP NIT	ANNUAL	EXISTING	AECO	NWP, GTN	AECO (CGPR)	$ 0.0100	YES		RMIX for 2012	3/31/2014	VARIABLE
5	FIRM FX NIT1	SEASONAL	EXISTING	AECO	NWP, GTN	FIXED	$ 3.6650			RMIX for 2012	2/28/2013	VARIABLE
6	FIRM CGP ST2	SEASONAL	EXISTING	STATION 2	NWP, GTN	AECO (CGPR)	$ 0.0467	YES		RMIX for 2012	4/1/2013	VARIABLE
7	FIRM FX SUM	SEASONAL	EXISTING	SUMAS	NWP, GTN	FIXED	$ 4.0800			RMIX for 2012	10/31/2013	VARIABLE
8	PEAK 1	PEAKING	EXISTING	CITYGATE	NWP	GD SUMAS	$ 0.1800	YES	0.05	RMIX for 2012	10/31/2014	15000
9	PEAK 2	PEAKING	EXISTING	CITYGATE	NWP	GD SUMAS	FLAT			RMIX for 2012	10/31/2014	15000
10	PEAK 4	PEAKING	EXISTING	SUMAS	NWP	GD SUMAS	$ 0.0300	YES	0.03	RMIX for 2012	10/31/2014	5000
11	FIRM I STAN	SEASONAL	EXISTING	STANIFIELD	NWP, GTN	IFERC SUMAS	$ (0.4700)	YES		RMIX for 2012	3/31/2014	VARIABLE
12	PEAK 5	PEAKING	EXISTING	AECO	NWP, GTN	AECO (CGPR)	$ 0.0200	YES	0.1	RMIX for 2012	3/1/2013	5000
13	FIRM FX NIT2	SEASONAL	EXISTING	AECO	NWP, GTN	FIXED	$ 3.0600			RMIX for 2012	2/29/2012	VARIABLE
14	FIRM FX ST2	SEASONAL	EXISTING	FIXED	NWP, GTN	FIXED	$ 4.1600			RMIX for 2012	12/1/2013	VARIABLE
15	FIRM GD ST2	SEASONAL	EXISTING	STATION 2	NWP, GTN	GD SUMAS	$ 0.0500	YES		RMIX for 2012	4/1/2014	10000
16	FIRM FX RM2	SEASONAL	EXISTING	ROCKIES	NWP, GTN	FIXED	$ 3.6700			RMIX for 2012	3/31/2013	VARIABLE
17	FIRM STR RM	ANNUAL	EXISTING	ROCKIES	NWP, GTN	FIXED IF IF RM < $4	$ 3.4000			RMIX for 2012	11/1/2014	1000 - 2500
18	FIRM STR SUM	SEASONAL	EXISTING	SUMAS	NWP, GTN	IFSUM -.25 W/FLR				RMIX for 2012	3/1/2012	5000
19	FIRM CG NIT	ANNUAL	EXISTING	CITYGATE	GTN	AECO (CGPR)	$ 0.3000	YES		RMIX for 2012	10/31/2014	VARIABLE
20	FIRM GD SUM	SEASONAL	EXISTING	SUMAS	NWP, GTN	GD SUMAS	$ 0.0250	YES		RMIX for 2012	10/31/2012	VARIABLE
21	FIRM CG SUM	SEASONAL	EXISTING	CITYGATE	NWP	IFERC SUMAS	$ 0.4200	YES		RMIX for 2012	10/31/2014	VARIABLE
22	FIRM SPT SUM	SEASONAL	RMIX	SUMAS	NWP, GTN	IFERC SUMAS		NO		11/1/2012	INCREMENTAL	VARIABLE
23	FIRM SPT NIT	SEASONAL	RMIX	AECO	GTN	AECO (CGPR)		NO		11/1/2012	INCREMENTAL	VARIABLE
24	FIRM SPT RM	SEASONAL	RMIX	ROCKIES	NWP, GTN	IFERC ROCKIES		NO		11/1/2012	INCREMENTAL	VARIABLE
25	INCR SUM A	ANNUAL	RMIX	SUMAS	NWP, GTN	IFERC SUMAS		NO		11/1/2012	INCREMENTAL	VARIABLE
26	INCR RM A	ANNUAL	RMIX	ROCKIES	NWP, GTN	IFERC ROCKIES		NO		11/1/2012	INCREMENTAL	VARIABLE
27	INCR NIT A	ANNUAL	RMIX	AECO	GTN	AECO (CGPR)		NO		11/1/2012	INCREMENTAL	VARIABLE
28	INCR SUM S	SEASONAL	RMIX	SUMAS	NWP, GTN	IFERC SUMAS		NO		11/1/2012	INCREMENTAL	VARIABLE
29	INCR RM S	SEASONAL	RMIX	ROCKIES	NWP, GTN	IFERC ROCKIES		NO		11/1/2012	INCREMENTAL	VARIABLE
30	INCR NIT S	SEASONAL	RMIX	AECO	GTN	AECO (CGPR)		NO		11/1/2012	INCREMENTAL	VARIABLE
31	INCR ST2	SEASONAL	RMIX	STATION 2	NWP, GTN	GD SUMAS		NO		11/1/2012	INCREMENTAL	VARIABLE
32	INCR STRU SU	ANNUAL	RMIX	SUMAS	NWP, GTN	STRUCTURED	Index Ls $0.25 if Inde	NO		11/1/2012	INCREMENTAL	VARIABLE
33	INCR STRU RM	ANNUAL	RMIX	ROCKIES	NWP, GTN	STRUCTURED	Index Ls $0.25 if Inde	NO		11/1/2012	INCREMENTAL	VARIABLE
34	INCR STRU AE	ANNUAL	RMIX	AECO	GTN	STRUCTURED	Index Ls $0.25 if Inde	NO		11/1/2012	INCREMENTAL	VARIABLE
35	INCR SUM FX	ANNUAL	RMIX	SUMAS	NWP, GTN	FIXED		NO		11/1/2012	INCREMENTAL	VARIABLE
36	INCR RM FX	ANNUAL	RMIX	ROCKIES	NWP, GTN	FIXED		NO		11/1/2012	INCREMENTAL	VARIABLE
37	INCR NIT FX	ANNUAL	RMIX	AECO	GTN	FIXED		NO		11/1/2012	INCREMENTAL	VARIABLE

	ALTERNATE SUPPLY RESOURCES (AUGUST 2012)											
	MODEL NAME	**CATEGORY**	**OTHER CAT INFO**	**RECEIPT PT(S)**	**DELIVERY PT(S)**	**PRICE INDEX**	**INDEX DIFFERENTIAL/EST PRICE**	**COMM ADDER**	**DEMAND CHARGE**	**DEAL START DATE**	**DEAL END DATE**	**MDQ IN DTHS**
38	INCR MAL	SEASONAL	RMIX	MALIN	BACKHAULS NWP, GTN	MALIN		NO		11/1/2012	INCREMENTAL	VARIABLE
39	SAT LNG	SEASONAL	RMIX	ZONAL	ZONAL	NYMEX HH		NO		11/1/2012	INCREMENTAL	VARIABLE
40	IMP LNG NOR	SEASONAL	RMIX	PALOMAR	BACKHAULS NWP, GTN	NYMEX HH		NO		11/1/2015	INCREMENTAL	VARIABLE
41	IMP LNG SOR	SEASONAL	RMIX	PACIFIC CONNECTOR	BACKHAULS NWP, GTN	NYMEX HH		NO		11/1/2016	INCREMENTAL	VARIABLE
42	SAT PROP	SEASONAL	RMIX	ZONAL	ZONAL	NYMEX HH		NO		11/1/2016	INCREMENTAL	VARIABLE
43	INCR CG NWP	SEASONAL	RMIX	CITYGATE	NWP	NYMEX HH		NO		11/1/2016	INCREMENTAL	VARIABLE
44	INCR CG GTN	SEASONAL	RMIX	CITYGATE	GTN	NYMEX HH		NO		11/1/2016	INCREMENTAL	VARIABLE
	SUPPLY MDQS ARE CAPPED AT 20,000 DTHS/DAY											

Potential and Existing Storage and Transport

2012 Integrated Resource Plan

EXISTING AND POTENTIAL ADDITIONAL STORAGE RESOURCES

	Model Name	Type	Location	Pipeline Transport Required	Start	Contract Expiration	Lead Time	PRINCIPLE DEL AREA			Max Cap	WD MDQ	Fuel Inj < 3%	SVDD	D2 RATE > $0.05 < $0.15
1	JP-1	Undergound	Jackson Prairie	Yes	Existing	2020	NA	MOST OR AND WA NWP POINTS			604,351	16,789	YES	SGS	YES
2	JP-EXP	Undergound	Jackson Prairie	Yes	Full access begins in Nov 2012	2060	NA	ZONE 30-S			350,000	30,000	YES	SGS	YES
3	LNG	LNG	Plymouth	Yes	Existing	2020	NA	MANY OR AND WA NWP POINTS			562,200	60,000	YES	SGS	YES
4	JP-3	Undergound	Jackson Prairie	Yes	Nov-12	2021		ZONE 30-S, ZONE 30-W			102,782	3,500	YES	SGS	YES
5	JP-4	Undergound	Jackson Prairie	Yes	Nov-12	2021		ZONE 30-S, ZONE 30-W			178,460	6,077	YES	SGS	YES
6	RYCKMAN	Undergound	Near Opal WY	Yes	2013	TBD		ZONE-GTN, OTHER			350000 - 500000	10,000	YES	RYCK	NEGOTIATED
8	MIST STORAGE	Undergound	Mist	Yes	2014	TBD		NWP			300,000	10,000	YES	MIST	YES
10	JP-OTHER	Undergound	Jackson Prairie	Yes	2017	TBD		NWP			300,000	5,000	YES	SGS	YES

	TRANSPORT RATES			
Ln #	**Pipeline**	**Rate**		**Rate Change**
	Westcoast - T-South Service			
1	Huntington Delivery Rate (5yr Service term)	$ 0.50950		Every three years
2	Motor Fuel Tax (Average 2010)	$ 0.41632	$7175 per month	
3	Carbon Tax (Average 2010)	$ 0.75935	$13087per month	
	Foothills - BC			
	FT Firm Service (A/BC to Kingsgate)			
4	FT Rate	$ 0.10430		Every three years
5	Fuel	1.100%		
	Nova Gas Transmission			
6	Firm Transportation Rate	$ 0.22920		Every three years
	TransCanada GTN			
	FTS-1 Rate			
7	Daily Mileage	$ 0.000498	(Dth-Mile)	Every five years
8	Daily Non-Mileage	$ 0.003922	(Dth)	$0.21 for backhaul
9	Delivery	$ 0.000016	(Dth-Mile)	
10	Fuel %	0.2500%	(Dth)	
	Charge to Delivery locations			
11	Starr Road	108.29	$ 0.053928	
12	Stanfield	277.37	$ 0.138130	
13	Bend	454.51	$ 0.226346	
14	Malin	612.46	$ 0.305005	

	TRANSPORT RATES			
Ln #	**Pipeline**	**Rate**		**Rate Change**
	Northwest Pipeline			
	TF-1 Rate			
15	Reservation (System-Wide)	$ 0.37883	($/Dth)	Every five years
16	Volumetric (System-Wide)	$ 0.03000	($/Dth)	
17	Fuel	1.85%		
	TF-2 Rate (Storage)			
18	Reservation	$ 0.37883	($/Dth)	
19	Volumetric	$ 0.03000	($/Dth)	
	SGS-2F			
20	Capacity Demand Charge (Pre-Exp Shipper)	$ 0.00056	($/Dth)	
21	Capacity Demand Charge (Exp Shipper)	$ 0.00232	($/Dth)	
22	Demand Charge (Pre-Exp Shipper)	$ 0.01547	($/Dth)	
23	Demand Charge (Exp Shipper)	$ 0.08453	($/Dth)	
	LS-2F			
24	Capacity Demand Charge	$ 0.00390	($/Dth)	
25	Demand Charge	$ 0.03054	($/Dth)	
26	Liquefaction	$ 0.64110	($/Dth)	
27	Vaporization	$ 0.04184	($/Dth)	
	Ruby			
28	Reservation Rate (seasonal)	$ 0.75	($/Dth)	Every five years
30	Reservation Rate (max rate)	$ 0.95	($/Dth)	
31	Commodity Rate	$ 0.01	($/Dth)	
32	Fuel	0.44%	(Dth)	
	We use standard escalation factor in SENDOUT: 3% first year, 4% each subsequent renewal period			

	POTENTIAL ADDITIONAL PIPELINE TRANSPORT RESOURCES									
	Model Name	Start Date	End Date	Daily MDQ	Description	Cost Dths	Lead Time	Pipeline	VARIABLE < $.10	FUEL < 3%
2	INCR-GTN-BK	2013	OPEN	VARIABLE	Malin backhaul to Central OR and Stanfield Interconnect	GTN Rate (approx $0.22)	Some level now	GTN	YES	YES
3	INCR-GTN-FW	2013	OPEN	VARIABLE	AECO NIT, Foothills to Kingsgate	NOVA, Foothills, GTN (approx $0.64)	Avail now	NOVA, Foothills, GTN	YES	YES
4	INCR-NWP	2013	OPEN	VARIABLE	Sumas to WA and OR citygates	NWP Rate X 3 (min approx $1.14)	TBD	NWP	YES	YES
5	INCR-RUBY	2013	2021	VARIABLE	Opal Hub to Mailin	Variable up to $0.95	Cap Rel avail now	RUBY	YES	YES
7	N-MAX, WA SO EXPANSION, PALOMAR	TBD	OPEN	VARIABLE	Stanfield, Madras OR to Molalla OR (bi-directional) to I-5 coordiaor?	NWP Rate X 3 (min approx $1.14)	> 3years		YES	YES
8	SO-XING	2016	15 YEARS	VARIABLE	Huntingdon/Kingsgate	$0.45 to 0.47	> 3 years	SPECTRA, SO-XING, SOXING KNG	YES	YES

PERIOD	NYMEX CURRENT MARKET	CASCADE NYMEX LO PROJECTED PRICE	NYMEX CASCADE PROJECTED PRICE	CASCADE NYMEX HI PROJECTED PRICE	CASCADE SUMAS LO FORECAST PRICE	SUMAS CASCADE FORECAST PRICE	CASCADE SUMAS HI FORECAST PRICE	CASCADE ROCKIES LO FORECAST PRICE
Jan-12	3.084	2.906516749	3.142180269	3.299289282	2.850753704	3.000793373	3.150833041	2.886444478
Feb-12	2.678	2.569279364	2.777599313	2.916479278	2.503803932	2.635583087	2.767362241	2.563893936
Mar-12	2.43	2.367408402	2.559360434	2.687328456	2.281349945	2.401420994	2.521492044	2.35668016
Apr-12	2.335	2.292730229	2.478627274	2.602558638	2.194237722	2.309723918	2.425210113	2.276638605
May-12	1.981	1.894971594	2.04861794	2.151048837	1.677918332	1.766229823	1.854541314	1.865552743
Jun-12	2.737	2.557358083	2.764711441	2.902947013	2.352106317	2.475901386	2.599696456	2.543055205
Jul-12	2.774	2.452826854	2.651704707	2.784289942	2.165795612	2.279784855	2.393774097	2.34135289
Aug-12	2.737	2.433094586	2.630372526	2.761891152	2.244503254	2.362635004	2.480766755	2.319234961
Sep-12	2.728	2.42763872	2.624474292	2.755698007	2.272353551	2.391951106	2.511548662	2.321503508
Oct-12	2.773	2.483101399	2.684433945	2.818655643	2.443401557	2.572001638	2.70060172	2.382251964
Nov-12	2.961	2.58259821	2.791998065	2.931597968	2.907043966	3.06004628	3.213048594	2.488737514
Dec-12	3.243	2.811630722	3.03960078	3.191580819	3.159073237	3.325340249	3.491607262	2.725669747
Jan-13	3.393	3.090018036	3.340560039	3.507588041	3.441342662	3.62246596	3.803589258	3.012243272
Feb-13	3.426	3.08477841	3.334895579	3.501640358	3.432313498	3.612961577	3.793609655	3.062059955
Mar-13	3.419	3.071509457	3.320550765	3.486578303	3.396365685	3.575121774	3.753877862	3.043265132
Apr-13	3.416	3.090399496	3.340972428	3.508021049	2.983713611	3.14075117	3.297788728	3.056119793
May-13	3.461	3.127566897	3.381153402	3.550211072	2.999378135	3.157240142	3.315102149	3.083337143
Jun-13	3.505	3.166393504	3.423128113	3.594284518	3.017466988	3.17628104	3.335095092	3.112691003
Jul-13	3.548	3.207832035	3.467926525	3.641322851	3.050424545	3.210973206	3.371521866	3.091597337
Aug-13	3.569	3.224064452	3.485475083	3.659748837	3.070428705	3.232030215	3.393631726	3.107416924
Sep-13	3.571	3.224750726	3.486217001	3.660527851	3.089091943	3.251675729	3.414259516	3.125322888
Oct-13	3.605	3.258953917	3.523193424	3.699353095	3.133045428	3.297942556	3.462839684	3.171301927
Nov-13	3.713	3.346765781	3.618125169	3.799031428	3.658439123	3.850988551	4.043537978	3.275212496
Dec-13	3.918	3.494475541	3.777811396	3.966701966	3.854547539	4.057418462	4.260289385	3.429517541
Jan-14	4.02	3.671672596	3.96937578	4.167844569	4.032425394	4.24465831	4.456891225	3.61082021
Feb-14	4.01	3.665339085	3.962528741	4.160655178	4.021528284	4.233187668	4.444847051	3.655343862
Mar-14	3.957	3.568244152	3.857561246	4.050439308	3.871083014	4.074824225	4.278565436	3.539499656
Apr-14	3.842	3.550868608	3.838776874	4.030715717	3.431394865	3.611994595	3.792594325	3.516285822
May-14	3.853	3.57246939	3.86212907	4.055235524	3.426501286	3.606843458	3.787185631	3.519994088
Jun-14	3.875	3.592398003	3.883673517	4.077857193	3.410677088	3.590186409	3.769695729	3.521311586
Jul-14	3.914	3.622329072	3.916031429	4.111833	3.441336573	3.62245955	3.803582528	3.497035715
Aug-14	3.933	3.633137675	3.927716405	4.124102226	3.447615688	3.629069145	3.810522603	3.506906675
Sep-14	3.936	3.626235575	3.920254676	4.116267409	3.465585388	3.647984619	3.83038385	3.535362871
Oct-14	3.973	3.673047236	3.970861877	4.16940497	3.510957307	3.695744534	3.880531761	3.5904588
Nov-14	4.058	3.7308408	4.033341405	4.235008476	3.864017778	4.067387135	4.270756492	3.667942827
Dec-14	4.243	3.841781826	4.15327765	4.360941532	4.055821424	4.26928571	4.482749995	3.792594635
Jan-15	4.345	4.183848213	4.523079149	4.749233106	4.336306236	4.56453288	4.792759524	4.155150825
Feb-15	4.315	4.170422365	4.508564719	4.733992955	4.313730597	4.540769049	4.767807502	4.135774111
Mar-15	4.235	4.088543267	4.420046775	4.641049114	4.109010613	4.32527433	4.541538046	4.014018586
Apr-15	4.035	4.036094632	4.363345548	4.581512825	3.8087872	4.009249684	4.209712169	3.937729424
May-15	4.05	4.084347531	4.415510845	4.636286387	3.79143168	3.990980716	4.190529752	3.943880555
Jun-15	4.072	4.09201717	4.423802346	4.644992463	3.729173628	3.925445924	4.12171822	3.906488955
Jul-15	4.109	4.112218128	4.445641219	4.66792328	3.734317496	3.930860522	4.127403549	3.909058904
Aug-15	4.128	4.110570917	4.44386045	4.666053473	3.902547666	4.107944912	4.313342157	3.903989006
Sep-15	4.131	4.073631581	4.403926033	4.624122335	3.92769752	4.134418442	4.341139364	3.937596373
Oct-15	4.167	4.133366487	4.468504311	4.691929526	3.998999172	4.209472813	4.419946453	4.022677055
Nov-15	4.255	4.153232526	4.489981109	4.714480164	4.142052511	4.360055274	4.578058038	4.117284177
Dec-15	4.441	4.265785288	4.611659771	4.84224276	4.368628552	4.59855637	4.828484189	4.19892872
Jan-16	4.541	4.293002898	4.641084214	4.873138424	4.241712543	4.464960572	4.6882086	4.190102357
Feb-16	4.511	4.279920239	4.626940799	4.858287839	4.223565782	4.445858718	4.668151654	4.177083775
Mar-16	4.431	4.165039626	4.502745542	4.727882819	3.963020221	4.171600232	4.380180244	4.002280439
Apr-16	4.221	4.147973796	4.484295996	4.708510795	3.92028804	4.12661899	4.332949939	3.988178015

PERIOD	ROCKIES CASCADE FORECAST PRICE	CASCADE ROCKIES HI FORECAST PRICE	CASCADE AECO LO FORECAST PRICE	AECO CASCADE FORECAST PRICE	CASCADE AECO HI FORECAST PRICE	CASCADE MALIN LO FORECAST PRICE	MALIN CASCADE FORECAST PRICE	CASCADE MALIN HI FORECAST PRICE
Jan-12	3.038362609	3.190280739	2.619804183	2.757688614	2.895573044	2.908374518	3.061446861	3.214519204
Feb-12	2.698835722	2.833777508	2.273319773	2.392968182	2.512616592	2.56139512	2.69620539	2.831015659
Mar-12	2.480715958	2.604751756	2.072123224	2.181182341	2.290241458	2.354171242	2.478074992	2.601978741
Apr-12	2.396461689	2.516284774	1.981949904	2.086263056	2.190576209	2.273466819	2.393122967	2.512779116
May-12	1.96373973	2.061926716	1.534789937	1.615568355	1.696346773	1.821689386	1.917567774	2.013446163
Jun-12	2.676900215	2.810745226	2.212118879	2.328546188	2.444973498	2.463130759	2.59276922	2.722407681
Jul-12	2.46458199	2.587811089	1.922129902	2.023294633	2.124459365	2.271141092	2.390674833	2.510208575
Aug-12	2.441299959	2.563364957	1.998607229	2.103797083	2.208986937	2.354092233	2.477991824	2.601891416
Sep-12	2.443687903	2.565872298	2.044795205	2.152416005	2.260036805	2.347585919	2.471143072	2.594700226
Oct-12	2.507633647	2.633015329	2.155020953	2.268443108	2.381865264	2.428102644	2.55589752	2.683692396
Nov-12	2.619723699	2.750709884	2.336851449	2.45984363	2.582835812	2.648493384	2.787887772	2.927282161
Dec-12	2.86912605	3.012582352	2.569917068	2.705175861	2.840434654	2.875734068	3.027088492	3.178442917
Jan-13	3.170782392	3.329321511	2.814178377	2.962293029	3.11040768	3.12145193	3.285738874	3.450025817
Feb-13	3.223221005	3.384382055	2.794975658	2.94207964	3.089183622	3.118096922	3.282207286	3.446317651
Mar-13	3.203436981	3.36360883	2.808444941	2.956257833	3.104070724	3.101082901	3.264297791	3.427512681
Apr-13	3.216968203	3.377816613	2.790732717	2.937613387	3.084494056	3.060199446	3.221262575	3.382325703
May-13	3.245618045	3.407898947	2.797184844	2.944405099	3.091625354	3.087036187	3.249511776	3.411987365
Jun-13	3.276516845	3.440342687	2.802329637	2.949820671	3.097311704	3.116862578	3.280907977	3.444953376
Jul-13	3.254312987	3.417028636	2.827553116	2.976371701	3.125190286	3.153583914	3.319562014	3.485540115
Aug-13	3.270965183	3.434513442	2.829885578	2.978826924	3.127768271	3.169519136	3.336335933	3.50315273
Sep-13	3.289813567	3.454304245	2.869894827	3.020941923	3.171989019	3.187003068	3.354740072	3.522477075
Oct-13	3.338212555	3.505123183	2.929890498	3.084095261	3.238300024	3.233208569	3.403377441	3.573546313
Nov-13	3.447592101	3.619971706	3.094443657	3.257309113	3.420174568	3.390199704	3.568631267	3.747062831
Dec-13	3.610018465	3.790519388	3.237225445	3.407605731	3.577986018	3.54372935	3.730241422	3.916753493
Jan-14	3.800863379	3.990906548	3.396948655	3.575735426	3.754522198	3.724216675	3.920228079	4.116239483
Feb-14	3.847730381	4.0401169	3.38499493	3.563152558	3.741310186	3.717135583	3.912774297	4.108413012
Mar-14	3.725789111	3.912078567	3.302503888	3.476319882	3.650135876	3.600040916	3.789516754	3.978992592
Apr-14	3.701353496	3.886421171	3.292996619	3.46631223	3.639627842	3.605945818	3.79573244	3.985519062
May-14	3.705256934	3.890519781	3.272305011	3.444531591	3.61675817	3.607583404	3.797456215	3.987329026
Jun-14	3.706643774	3.891975963	3.254484477	3.425773134	3.59706179	3.608334343	3.798246677	3.988159011
Jul-14	3.681090227	3.865144738	3.289897162	3.463049644	3.636202126	3.627215943	3.818122045	4.009028147
Aug-14	3.69148071	3.876054746	3.286797759	3.459787114	3.63277647	3.636419118	3.827809597	4.019200077
Sep-14	3.721434601	3.907506331	3.329749444	3.504999414	3.680249385	3.663334788	3.856141883	4.048948977
Oct-14	3.779430315	3.968401831	3.351150861	3.527527222	3.703903584	3.717904389	3.913583568	4.109262746
Nov-14	3.860992449	4.054042072	3.499365225	3.683542342	3.867719459	3.79632588	3.996132505	4.19593913
Dec-14	3.992204878	4.191815122	3.600326063	3.789816908	3.979307754	3.919971424	4.12628571	4.332599995
Jan-15	4.373842973	4.592535122	3.920883939	4.127246252	4.333608564	4.25152256	4.475286905	4.69905125
Feb-15	4.353446433	4.571118754	3.900284464	4.105562594	4.310840724	4.222674657	4.444920691	4.667166726
Mar-15	4.225282722	4.436546858	3.850415767	4.053069229	4.25572269	4.10010836	4.315903537	4.531698714
Apr-15	4.144978341	4.352227258	3.733343714	3.929835488	4.126327263	4.019310083	4.230852719	4.442395355
May-15	4.151453216	4.359025877	3.709553439	3.904793094	4.100032749	4.022492102	4.234202213	4.445912323
Jun-15	4.112093636	4.317698318	3.671589285	3.864830827	4.058072368	3.84071827	4.042861337	4.245004403
Jul-15	4.114798846	4.320538789	3.552238558	3.739198482	3.926158406	3.833565672	4.035332286	4.2370989
Aug-15	4.109462112	4.314935218	3.529079833	3.714820877	3.900561921	3.829227543	4.030765834	4.232304126
Sep-15	4.144838287	4.352080202	3.576815597	3.76506905	3.953322502	3.909155418	4.11490044	4.320645462
Oct-15	4.2343969	4.446116745	3.649689433	3.841778351	4.033867268	4.012651736	4.223843933	4.43503613
Nov-15	4.333983344	4.550682512	3.835134253	4.036983424	4.238832596	4.163679967	4.382821018	4.601962068
Dec-15	4.419924969	4.640921217	3.883564728	4.087962872	4.292361015	4.223096031	4.445364243	4.667632455
Jan-16	4.41063406	4.631165763	3.914077825	4.120081921	4.326086017	4.237710351	4.460747738	4.683785125
Feb-16	4.396930289	4.616776804	3.896269723	4.101336551	4.306403378	4.224986669	4.447354388	4.669722108
Mar-16	4.212926778	4.423573117	3.81255876	4.013219747	4.213880734	4.048209633	4.261273298	4.474336963
Apr-16	4.198082121	4.407986227	3.743634119	3.940667494	4.137700868	4.026886463	4.238827856	4.450769249

PERIOD	NYMEX CURRENT MARKET	CASCADE NYMEX LO PROJECTED PRICE	NYMEX CASCADE PROJECTED PRICE	CASCADE NYMEX HI PROJECTED PRICE	CASCADE SUMAS LO FORECAST PRICE	SUMAS CASCADE FORECAST PRICE	CASCADE SUMAS HI FORECAST PRICE	CASCADE ROCKIES LO FORECAST PRICE
May-16	4.236	4.193754584	4.53378874	4.760478177	3.914714317	4.120751913	4.326789508	3.939085196
Jun-16	4.258	4.217376594	4.559326047	4.78729235	3.874482018	4.078402124	4.28232223	3.856231457
Jul-16	4.295	4.235770212	4.57921104	4.808171592	3.856743742	4.059730254	4.262716767	3.800518404
Aug-16	4.314	4.213708975	4.555361054	4.783129107	4.00262199	4.213286305	4.42395062	3.77545823
Sep-16	4.317	4.16908621	4.507120227	4.732476238	4.019786441	4.231354148	4.442921855	3.884500655
Oct-16	4.353	4.222743568	4.565128182	4.793384591	3.836825209	4.038763378	4.240701547	4.023397213
Nov-16	4.444	4.277729092	4.624571992	4.855800591	3.979457441	4.18890257	4.398347698	4.178031555
Dec-16	4.635	4.357140575	4.710422243	4.945943355	4.280617789	4.505913462	4.731209135	4.23859568
Jan-17	4.737	4.410933645	4.768576913	5.007005759	4.339748254	4.568156057	4.796563859	4.288162055
Feb-17	4.707	4.403877193	4.760948317	4.998995733	4.287370524	4.513021605	4.738672685	4.226180372
Mar-17	4.627	4.198408258	4.538819739	4.765760726	3.861986016	4.065248438	4.26851086	3.990885376
Apr-17	4.42	4.280154097	4.627193619	4.8585533	3.844403212	4.046740223	4.249077234	4.023895352
May-17	4.437	4.322044633	4.672480684	4.906104718	3.770459547	3.968904787	4.167350026	3.961079064
Jun-17	4.461	4.3311903	4.682367891	4.916486286	3.684285516	3.87819528	4.072105044	3.903935689
Jul-17	4.5	4.39010983	4.746064681	4.983367915	3.662094567	3.854836386	4.047578206	3.833922932
Aug-17	4.519	4.338516925	4.690288567	4.924802996	3.595977191	3.785239148	3.974501105	3.774374894
Sep-17	4.523	4.255070031	4.600075709	4.830079494	3.702946379	3.897838294	4.092730208	3.919426944
Oct-17	4.56	4.348551171	4.701136401	4.936193221	3.869434035	4.073088458	4.276742881	4.086620366
Nov-17	4.664	4.411620504	4.769319464	5.007785437	4.016894536	4.228310038	4.43972554	4.253469973
Dec-17	4.871	4.49242463	4.856675275	5.099509039	4.337167384	4.565439351	4.793711319	4.307027795
Jan-18	4.984	4.562382393	4.93230529	5.178920554	4.407428602	4.639398529	4.871368455	4.376726393
Feb-18	4.954	4.550263237	4.919203499	5.165163674	4.386503188	4.617371777	4.848240366	4.355363838
Mar-18	4.876	4.331275355	4.682459843	4.916582835	3.951482093	4.159454834	4.367427576	4.145011198
Apr-18	4.669	4.426356893	4.785250695	5.02451323	3.918445617	4.124679597	4.330913577	4.176983625
May-18	4.689	4.482922826	4.846403055	5.088723208	3.839195989	4.041258936	4.243321883	4.155304717
Jun-18	4.719	4.504061916	4.869256126	5.112718932	3.73483573	3.931406032	4.127976333	4.072195373
Jul-18	4.764	4.530178029	4.897489762	5.14236425	3.724023288	3.920024513	4.116025739	4.023657029
Aug-18	4.786	4.496724041	4.861323288	5.104389452	3.707808505	3.902956321	4.098104138	3.980039655
Sep-18	4.792	4.451321071	4.812238996	5.052850946	3.78929166	3.988728063	4.188164466	4.080299465
Oct-18	4.832	4.480277957	4.843543737	5.085720924	3.921024686	4.127394407	4.333764127	4.242442519
Nov-18	4.947	4.557191692	4.926693721	5.173028407	4.118215876	4.33496408	4.551712284	4.380290871
Dec-18	5.167	4.668058666	5.046549909	5.298877405	4.506645143	4.743836992	4.981028842	4.467403972
Jan-19	5.286	4.736283569	5.120306562	5.37632189	4.558235831	4.79814298	5.038050129	4.520832009
Feb-19	5.258	4.723642578	5.106640624	5.361972656	4.545233712	4.784456539	5.023679366	4.507213363
Mar-19	5.182	4.612047334	4.985997118	5.235296974	4.473754781	4.709215559	4.944676337	4.417774075
Apr-19	4.982	4.611973338	4.985917122	5.235212978	4.364743834	4.594467194	4.824190553	4.322101121
May-19	5.004	4.65886375	5.036609459	5.288439932	4.311906433	4.538848877	4.765791321	4.25595336
Jun-19	5.034	4.678714811	5.058070066	5.310973569	4.046572388	4.259549882	4.472527376	4.177759374
Jul-19	5.079	4.713439444	5.095610209	5.35039072	3.980570242	4.190073939	4.399577636	4.122635457
Aug-19	5.101	4.672055502	5.050870813	5.303414353	3.921329186	4.127714933	4.33410068	4.069279716
Sep-19	5.107	4.612263724	4.986231053	5.235542605	4.016051952	4.227423108	4.438794263	4.189107029
Oct-19	5.147	4.640543786	5.016804093	5.267644298	4.197287631	4.418197507	4.639107382	4.392764163
Nov-19	5.262	4.742625327	5.127162515	5.383520641	4.592534359	4.834246694	5.075959029	4.562442335
Dec-19	5.492	4.861207276	5.255359218	5.518127179	4.673612804	4.919592425	5.165572047	4.632956476
Jan-20	5.612	4.930092167	5.32982937	5.596320838	4.697902968	4.945161019	5.19241907	4.649014357
Feb-20	5.587	4.877649548	5.273134647	5.536791379	4.685844029	4.932467399	5.179090769	4.619737972
Mar-20	5.512	4.79516879	5.183966259	5.443164572	4.587657904	4.829113583	5.070569262	4.539563393
Apr-20	5.312	4.777780196	5.165167779	5.423426168	4.48583531	4.721931905	4.9580285	4.42657537
May-20	5.334	4.845823834	5.238728469	5.500664893	4.249804079	4.473477977	4.697151876	4.38197497
Jun-20	5.364	4.855591969	5.249288615	5.511753045	4.143764959	4.361857851	4.579950744	4.290717087
Jul-20	5.409	4.889317231	5.285748358	5.550035776	4.077886135	4.292511721	4.507137307	4.218603689
Aug-20	5.431	4.848447971	5.241565375	5.503643643	4.053557827	4.266902975	4.480248124	4.165994431

PERIOD	ROCKIES CASCADE FORECAST PRICE	CASCADE ROCKIES HI FORECAST PRICE	CASCADE AECO LO FORECAST PRICE	AECO CASCADE FORECAST PRICE	CASCADE AECO HI FORECAST PRICE	CASCADE MALIN LO FORECAST PRICE	MALIN CASCADE FORECAST PRICE	CASCADE MALIN HI FORECAST PRICE
May-16	4.146405469	4.353725743	3.734478725	3.931030237	4.127581748	3.97257242	4.181655179	4.390737938
Jun-16	4.059191007	4.262150557	3.712323638	3.907709092	4.103094547	3.924999767	4.131578702	4.338157637
Jul-16	4.000545688	4.200572972	3.664426113	3.857290645	4.050155177	3.879075942	4.083237834	4.287399726
Aug-16	3.974166558	4.172874886	3.618052963	3.808476803	3.998900643	3.85619377	4.059151337	4.262108904
Sep-16	4.088948058	4.293395461	3.658826279	3.851396083	4.043965887	3.944530233	4.152137088	4.359743942
Oct-16	4.235154961	4.446912709	3.762832685	3.960876511	4.158920336	4.06920908	4.283377979	4.497546878
Nov-16	4.397927953	4.61782435	3.884186641	4.088617516	4.293048392	4.226152793	4.448581887	4.671010981
Dec-16	4.461679663	4.684763646	3.905288533	4.110830034	4.316371536	4.287111929	4.512749399	4.738386869
Jan-17	4.513854795	4.739547534	3.953107252	4.161165528	4.369223805	4.336881699	4.565138631	4.793395563
Feb-17	4.448610918	4.671041464	3.919603119	4.12589802	4.332192921	4.274748716	4.499735491	4.724722266
Mar-17	4.200931975	4.410978573	3.80752828	4.007924506	4.208320731	4.035984229	4.248404452	4.460824674
Apr-17	4.235679318	4.447463283	3.760682161	3.958612801	4.156543441	4.069337575	4.283513237	4.497688899
May-17	4.169556909	4.378034755	3.739651065	3.936474805	4.133298546	4.058419147	4.272020155	4.485621162
Jun-17	4.109405989	4.314876288	3.715117464	3.910649962	4.10618246	4.004970855	4.215758795	4.426546735
Jul-17	4.03570835	4.237493767	3.644062817	3.835855597	4.027648377	3.934926842	4.142028254	4.349129667
Aug-17	3.973026204	4.171677514	3.572979706	3.76103127	3.949082833	3.879752925	4.083950448	4.28814797
Sep-17	4.125712573	4.331998201	3.661295907	3.853995692	4.046695476	4.031542375	4.243728816	4.455915256
Oct-17	4.301705649	4.516790931	3.800992062	4.001044276	4.20109649	4.192700994	4.413369467	4.634037941
Nov-17	4.477336813	4.701203654	3.909291844	4.115044047	4.320796249	4.300595074	4.526942183	4.753289292
Dec-17	4.533713468	4.760399141	3.954662682	4.162802823	4.370942965	4.35446365	4.583645948	4.812828245
Jan-18	4.607080413	4.837434434	4.020999149	4.232630683	4.444262218	4.424440841	4.657306148	4.890171455
Feb-18	4.584593514	4.81382319	4.003003709	4.213688115	4.42437252	4.403293912	4.635046223	4.866798534
Mar-18	4.363169682	4.581328166	3.878868758	4.083019745	4.287170732	4.189594089	4.410099041	4.630603993
Apr-18	4.396824868	4.616666112	3.840506145	4.042638047	4.24476995	4.214117008	4.435912641	4.657708273
May-18	4.374004965	4.592705213	3.813880075	4.014610605	4.215341136	4.199004267	4.420004492	4.641004717
Jun-18	4.286521445	4.500847518	3.770924688	3.969394408	4.167864129	4.118807684	4.335587035	4.552366387
Jul-18	4.235428452	4.447199874	3.711378105	3.906713795	4.102049485	4.074841874	4.289307236	4.503772598
Aug-18	4.189515426	4.398991198	3.668330146	3.861400154	4.054470162	4.054557382	4.267955139	4.481352896
Sep-18	4.295052068	4.509804671	3.730245716	3.926574437	4.122903159	4.131690875	4.34914829	4.566605704
Oct-18	4.465728967	4.689015416	3.857094547	4.060099523	4.263104499	4.282487756	4.507881849	4.733275941
Nov-18	4.610832496	4.84137412	4.013054376	4.224267764	4.435481152	4.426504092	4.659477992	4.892451892
Dec-18	4.702530496	4.937657021	4.0741207	4.288548105	4.50297551	4.51408559	4.751669042	4.989252495
Jan-19	4.758770536	4.996709062	4.135671396	4.353338311	4.571005227	4.567677612	4.808081697	5.048485781
Feb-19	4.744435119	4.981656875	4.118508515	4.335272121	4.552035727	4.554333028	4.794034767	5.033736505
Mar-19	4.6502885	4.882802925	4.123074358	4.340078272	4.557082185	4.463763516	4.698698438	4.93363336
Apr-19	4.549580128	4.777059134	3.972327776	4.181397659	4.390467542	4.363747697	4.593418629	4.82308956
May-19	4.479950905	4.70394845	3.979013958	4.188435745	4.397857533	4.343583036	4.572192669	4.800802303
Jun-19	4.397641446	4.617523518	3.923951724	4.130475499	4.336999274	4.269034756	4.493720796	4.718406835
Jul-19	4.339616271	4.556597084	3.857406437	4.060427829	4.26344922	4.213948891	4.435735675	4.657522458
Aug-19	4.283452333	4.49762495	3.797798002	3.997682107	4.197566213	4.175461362	4.395222486	4.61498361
Sep-19	4.409586346	4.630065663	3.877229912	4.081294644	4.285359376	4.289302794	4.515055573	4.740808352
Oct-19	4.623962277	4.855160391	4.046535053	4.259510583	4.472486112	4.475647354	4.711207741	4.946768128
Nov-19	4.802570879	5.042699422	4.1980733	4.419024526	4.639975752	4.609855088	4.85247904	5.095102992
Dec-19	4.87679629	5.120636105	4.236905856	4.459900901	4.682895946	4.680851216	4.927211806	5.173572397
Jan-20	4.893699323	5.138384289	4.256953719	4.481003915	4.705054111	4.697121099	4.944337999	5.191554898
Feb-20	4.862882075	5.106026179	4.241246355	4.464469848	4.68769334	4.667975629	4.913658557	5.159341485
Mar-20	4.778487782	5.017412171	4.272932171	4.497823338	4.722714505	4.586615562	4.828016381	5.0694172
Apr-20	4.659553022	4.892530673	4.132330189	4.349821252	4.567312315	4.526391979	4.764623136	5.002854292
May-20	4.612605232	4.843235493	4.125377776	4.342502922	4.559628068	4.504304992	4.741373676	4.97844236
Jun-20	4.516544302	4.742371517	4.061172772	4.274918707	4.488664643	4.41555625	4.647953947	4.880351645
Jul-20	4.440635462	4.662667235	3.98945665	4.199428053	4.409399455	4.346440321	4.575200338	4.803960355
Aug-20	4.385257296	4.604520161	3.927149216	4.13384128	4.340533344	4.299095322	4.525363497	4.751631672

PERIOD	NYMEX CURRENT MARKET	CASCADE NYMEX LO PROJECTED PRICE	NYMEX CASCADE PROJECTED PRICE	CASCADE NYMEX HI PROJECTED PRICE	CASCADE SUMAS LO FORECAST PRICE	SUMAS CASCADE FORECAST PRICE	CASCADE SUMAS HI FORECAST PRICE	CASCADE ROCKIES LO FORECAST PRICE
Sep-20	5.437	4.782241179	5.169990463	5.428489986	4.180914344	4.400962467	4.621010591	4.302825798
Oct-20	5.477	4.837884091	5.230144964	5.491652212	4.338740955	4.567095743	4.79545053	4.50663551
Nov-20	5.597	4.94691827	5.348019752	5.615420739	4.745192958	4.994939956	5.244686953	4.695339013
Dec-20	5.832	5.05656533	5.466557113	5.739884969	4.768987381	5.019986717	5.270986052	4.721729552
Jan-21	5.962	5.147156726	5.564493757	5.842718445	4.816481233	5.069980246	5.323479258	4.762301636
Feb-21	5.937	5.103246028	5.517022732	5.792873869	4.789435169	5.041510705	5.29358624	4.734887287
Mar-21	5.862	5.032246797	5.440266807	5.712280148	4.77686598	5.028279979	5.279693978	4.68963494
Apr-21	5.662	4.994022933	5.398943711	5.668890897	4.575838076	4.816671659	5.057505242	4.486745225
May-21	5.684	5.059865906	5.470125304	5.743631569	4.337636847	4.565933524	4.7942302	4.411022086
Jun-21	5.714	5.094484064	5.507550339	5.782927856	4.269328503	4.494030003	4.718731503	4.294650487
Jul-21	5.759	5.096623927	5.509863705	5.785356891	4.18694473	4.407310242	4.627675754	4.209854967
Aug-21	5.781	5.063404115	5.473950395	5.747647915	4.157830872	4.376664075	4.595497279	4.162476791
Sep-21	5.787	4.99713063	5.402303384	5.672418553	4.203260378	4.424484608	4.645708839	4.30010126
Oct-21	5.827	5.031197274	5.439132188	5.711088797	4.403181791	4.634928201	4.866674611	4.536514615
Nov-21	5.945	5.15650088	5.574595546	5.853325323	4.850446815	5.105733489	5.361020163	4.758833045
Dec-21	6.18	5.235353792	5.659841937	5.942834034	4.900062321	5.157960338	5.415858355	4.823337601
Jan-22	6.307	5.375547333	5.811402523	6.101972649	5.031958962	5.296798908	5.561638853	4.939546562
Feb-22	6.282	5.366307579	5.801413599	6.091484279	5.017935455	5.282037321	5.546139187	4.926897895
Mar-22	6.207	5.224344794	5.647940318	5.930337334	4.926034578	5.185299555	5.444564533	4.80275689
Apr-22	6.002	5.354940117	5.789124451	6.078580674	4.838866317	5.093543492	5.348220666	4.728299677
May-22	5.997	5.438290204	5.879232653	6.173194286	4.627994285	4.871572932	5.115151579	4.710051666
Jun-22	6.029	5.463723986	5.906728633	6.202065065	4.599075359	4.841131957	5.083188555	4.604077333
Jul-22	6.072	5.412839475	5.851718351	6.144304269	4.445147138	4.679102251	4.913057363	4.451223617
Aug-22	6.114	5.346803839	5.780328475	6.069344899	4.381304508	4.611899482	4.842494456	4.368711691
Sep-22	6.125	5.264552912	5.691408554	5.975978982	4.477313695	4.712961784	4.948609873	4.525211153
Oct-22	6.18	5.347393613	5.780966068	6.070014371	4.74321438	4.992857242	5.242500104	4.86013292
Nov-22	6.3	5.478446205	5.922644546	6.218776774	5.193346435	5.466680458	5.740014481	5.056420452
Dec-22	6.535	5.516581774	5.963872188	6.262065798	5.186125523	5.459079498	5.732033473	5.070728141
Jan-23	6.66	5.53297712	5.981596887	6.280676731	5.149552217	5.420581281	5.691610345	5.00461773
Feb-23	6.635	5.492477987	5.937814039	6.234704741	5.144100289	5.414842409	5.68558453	5.00134335
Mar-23	6.56	5.420947998	5.860484323	6.153508539	5.07180488	5.338741979	5.605679078	4.926914786
Apr-23	6.325	5.498754378	5.944599328	6.241829294	4.947116089	5.20749062	5.467865151	4.834192968
May-23	6.31	5.590151478	6.043407003	6.345577353	4.7431994	4.992841474	5.242483548	4.806449322
Jun-23	6.35	5.602284714	6.056524015	6.359350216	4.734867353	4.984070898	5.233274443	4.709259528
Jul-23	6.4	5.551290781	6.001395439	6.301465211	4.561385553	4.801458477	5.041531401	4.53142082
Aug-23	6.445	5.48014038	5.924476086	6.22069989	4.496492357	4.733149849	4.969807342	4.444771619
Sep-23	6.46	5.375722699	5.811592107	6.102171713	4.598772688	4.840813356	5.082854024	4.602832432
Oct-23	6.525	5.482297916	5.926808558	6.223148986	4.878591513	5.135359488	5.392127462	4.912945771
Nov-23	6.645	5.613257269	6.068386237	6.371805549	5.323795708	5.603995483	5.884195257	5.121852216
Dec-23	6.88	5.639778305	6.097057627	6.401910508	5.32585152	5.606159495	5.886467469	5.163437756
Jan-24	7.005	5.60896832	6.063749535	6.366937012	5.231007381	5.506323559	5.781639737	5.0419131
Feb-24	6.98	5.568979733	6.02051863	6.321544561	5.223545743	5.498469203	5.773392663	5.017111254
Mar-24	6.905	5.412221367	5.851050126	6.143602632	5.084266353	5.351859319	5.619452285	4.872384596
Apr-24	6.655	5.569161504	6.020715139	6.321750896	5.110865024	5.37985792	5.648850816	4.903248218
May-24	6.64	5.655349073	6.11389089	6.419585435	4.934388977	5.19409366	5.453798343	4.889778
Jun-24	6.68	5.679787623	6.140310944	6.447326491	4.82242361	5.076235379	5.330047148	4.78874205
Jul-24	6.73	5.680510371	6.141092293	6.448146908	4.693897794	4.940945046	5.187992298	4.664606212
Aug-24	6.775	5.587069365	6.040074989	6.342078739	4.604579061	4.846925327	5.089271594	4.551792878
Sep-24	6.79	5.548471606	5.998347682	6.298265066	4.744671524	4.994391078	5.244110632	4.692216933
Oct-24	6.855	5.564118861	6.015263634	6.316026815	4.951747871	5.21236618	5.472984489	4.936035276
Nov-24	6.98	5.711309058	6.174388171	6.48310758	5.397798456	5.681893111	5.965987767	5.116073431
Dec-24	7.215	5.757906879	6.224764194	6.536002403	5.395040247	5.678989734	5.962939221	5.198174379

PERIOD	ROCKIES CASCADE FORECAST PRICE	CASCADE ROCKIES HI FORECAST PRICE	CASCADE AECO LO FORECAST PRICE	AECO CASCADE FORECAST PRICE	CASCADE AECO HI FORECAST PRICE	CASCADE MALIN LO FORECAST PRICE	MALIN CASCADE FORECAST PRICE	CASCADE MALIN HI FORECAST PRICE
Sep-20	4.529290314	4.755754829	4.038859729	4.251431294	4.464002858	4.434500207	4.667894955	4.901289702
Oct-20	4.743826852	4.981018195	4.191593314	4.412203489	4.632813663	4.616873275	4.859866605	5.102859935
Nov-20	4.942462119	5.189585225	4.357454802	4.586794528	4.816134254	4.745192958	4.994939956	5.244686953
Dec-20	4.970241634	5.218753715	4.369218122	4.599176971	4.829135819	4.771199357	5.022315112	5.273430868
Jan-21	5.012949091	5.263596546	4.425355578	4.65826903	4.891182481	4.812062717	5.065329176	5.318595635
Feb-21	4.984091881	5.233296476	4.397389028	4.628830556	4.860272083	4.784928772	5.036767129	5.288605485
Mar-21	4.936457832	5.183280724	4.44114301	4.674887378	4.908631747	4.775761578	5.02711745	5.278473323
Apr-21	4.72288971	4.959034196	4.233173586	4.455972196	4.678770805	4.626534139	4.870035935	5.113537732
May-21	4.643181143	4.8753402	4.208873114	4.430392752	4.65191239	4.556711716	4.796538649	5.036365581
Jun-21	4.520684724	4.74671896	4.177005524	4.39684792	4.616690316	4.473555998	4.709006314	4.94445663
Jul-21	4.431426282	4.652997596	4.088443801	4.303625054	4.518806307	4.40488847	4.636724705	4.868560941
Aug-21	4.381554517	4.600632243	4.041199259	4.253893957	4.466588654	4.364982904	4.594718847	4.824454789
Sep-21	4.526422379	4.752743498	4.06010589	4.273795674	4.487485458	4.456357006	4.690902112	4.925447217
Oct-21	4.775278542	5.014042469	4.256789746	4.480831311	4.704872877	4.671320581	4.917179559	5.163038537
Nov-21	5.009297942	5.259762839	4.455547709	4.690050219	4.92455273	4.852720398	5.108126735	5.363533071
Dec-21	5.077197475	5.331057348	4.499408816	4.736219806	4.973030796	4.902414726	5.160436553	5.418458381
Jan-22	5.199522697	5.459498832	4.634188319	4.878092968	5.121997616	5.005561567	5.269012176	5.532462785
Feb-22	5.186208311	5.445518726	4.619254291	4.862372938	5.105491585	4.996390092	5.259357992	5.522325891
Mar-22	5.055533568	5.308310246	4.597303589	4.839266936	5.081230283	4.89613417	5.153825442	5.411516714
Apr-22	4.977157555	5.226015433	4.521545103	4.759521161	4.997497219	4.889517987	5.146861039	5.404204091
May-22	4.957949122	5.205846578	4.500320006	4.737178954	4.974037902	4.841167079	5.095965346	5.350763613
Jun-22	4.846397193	5.088717053	4.507697781	4.744945033	4.982192285	4.790616721	5.042754443	5.294892165
Jul-22	4.685498544	4.919773472	4.34762332	4.5764456	4.80526788	4.631176453	4.874922582	5.118668712
Aug-22	4.598643886	4.82857608	4.265230985	4.489716827	4.714202668	4.57710629	4.818006621	5.058906953
Sep-22	4.763380161	5.001549169	4.347952461	4.576792065	4.805631668	4.73057159	4.979549042	5.228526494
Oct-22	5.115929389	5.371725859	4.598136474	4.840143657	5.08215084	5.001871525	5.265127921	5.528384317
Nov-22	5.322547844	5.588675236	4.800412876	5.053066185	5.305719494	5.199358589	5.473009041	5.746659493
Dec-22	5.33760857	5.604488998	4.784966475	5.036806816	5.288647156	5.189757639	5.462902778	5.736047917
Jan-23	5.268018663	5.531419596	4.753781095	5.0039801	5.254179105	5.114279738	5.383452356	5.652624973
Feb-23	5.264571947	5.527800545	4.747425894	4.997290415	5.247154936	5.11362503	5.38276319	5.651901349
Mar-23	5.18622609	5.445537395	4.778863691	5.030382833	5.281901974	5.05655434	5.322688779	5.588823218
Apr-23	5.088624177	5.343055386	4.637880388	4.881979356	5.126078323	4.997787691	5.260829148	5.523870605
May-23	5.059420339	5.312391356	4.625928611	4.869398538	5.112868465	4.952745513	5.21341633	5.474087146
Jun-23	4.957115293	5.204971058	4.641265115	4.885542226	5.129819338	4.91096384	5.169435621	5.427907402
Jul-23	4.769916653	5.008412485	4.461562784	4.696381878	4.931200972	4.73292083	4.982021927	5.231123023
Aug-23	4.678706967	4.912642315	4.379050336	4.609526669	4.840003002	4.672896881	4.918838822	5.164780763
Sep-23	4.845086771	5.087341109	4.468580661	4.703769117	4.938957573	4.851923223	5.107287603	5.362651983
Oct-23	5.171521864	5.430097957	4.732678737	4.981767092	5.230855447	5.137182975	5.407561026	5.677939077
Nov-23	5.391423385	5.660994554	4.929556164	5.189006488	5.448456812	5.337254199	5.618162315	5.89907043
Dec-23	5.435197638	5.70695752	4.924303349	5.183477209	5.44265107	5.337897571	5.618839548	5.899781526
Jan-24	5.307276947	5.572640795	4.83418531	5.088616116	5.343046922	5.195406933	5.468849404	5.742291874
Feb-24	5.281169741	5.545228229	4.825818134	5.079808562	5.33379899	5.192742968	5.46604523	5.739347491
Mar-24	5.128825891	5.385267185	4.7948771	5.047239053	5.299601005	5.070119763	5.336968171	5.60381658
Apr-24	5.161313913	5.419379609	4.803398269	5.056208704	5.309019139	5.161507633	5.43316593	5.704824226
May-24	5.147134737	5.404491474	4.818961426	5.072590975	5.326220524	5.144087297	5.414828733	5.68557017
Jun-24	5.040781106	5.292820161	4.733670687	4.982811249	5.231951812	5.046349153	5.311946476	5.5775438
Jul-24	4.910111802	5.155617392	4.599094666	4.841152279	5.083209893	4.92793238	5.187297242	5.446662104
Aug-24	4.791360924	5.03092897	4.489976414	4.726290962	4.96260551	4.817191046	5.070727417	5.324263788
Sep-24	4.939175719	5.186134505	4.629230836	4.872874564	5.116518293	4.963333715	5.224561805	5.485789895
Oct-24	5.195826607	5.455617937	4.821717111	5.075491695	5.32926628	5.21039188	5.484623032	5.758854183
Nov-24	5.385340453	5.654607476	5.005580629	5.269032241	5.532483853	5.397280682	5.681348086	5.965415491
Dec-24	5.471762504	5.745350629	5.000882694	5.264087047	5.527291399	5.398275993	5.682395782	5.966515571

PERIOD	NYMEX CURRENT MARKET	CASCADE NYMEX LO PROJECTED PRICE	NYMEX CASCADE PROJECTED PRICE	CASCADE NYMEX HI PROJECTED PRICE	CASCADE SUMAS LO FORECAST PRICE	SUMAS CASCADE FORECAST PRICE	CASCADE SUMAS HI FORECAST PRICE	CASCADE ROCKIES LO FORECAST PRICE
Jan-25	6.800832006	5.435052149	5.875732054	6.169518656	5.024952848	5.289424051	5.553895254	4.75807565
Feb-25	6.786767148	5.394166469	5.831531317	6.123107883	5.004499358	5.267894061	5.531288764	4.726811427
Mar-25	6.863765286	5.18873312	5.60944121	5.889913271	4.829009109	5.083167483	5.337325857	4.554138808
Apr-25	7.007974407	5.436418607	5.877209305	6.17106977	4.959666269	5.220701336	5.481736403	4.715900438
May-25	7.220157448	5.541027849	5.990300378	6.289815396	4.809464157	5.06259385	5.315723542	4.739452375
Jun-25	7.263046556	5.588740089	6.041881177	6.343975236	4.726560661	4.975327012	5.224093363	4.64482083
Jul-25	7.106225839	5.584708698	6.037522917	6.339399063	4.572603444	4.813266783	5.053930122	4.503148392
Aug-25	6.918342048	5.444474405	5.885918276	6.180214189	4.433924379	4.66728882	4.900653261	4.345446696
Sep-25	6.952508956	5.347877147	5.781488807	6.070563247	4.516658141	4.754376991	4.99209584	4.46219814
Oct-25	7.110514592	5.369091704	5.804423464	6.094644637	4.976357347	5.238270891	5.500184436	4.719938904
Nov-25	7.152821764	5.499615901	5.945530704	6.242807239	5.238808025	5.514534763	5.790261501	5.035475195
Dec-25	7.195142616	5.578220313	6.030508446	6.332033869	5.23223472	5.507615494	5.782996269	5.134840277
Jan-26	6.941315368	5.559902468	6.010705371	6.31124064	5.207235241	5.481300254	5.755365267	5.113161254
Feb-26	6.905999321	5.550890217	6.000962397	6.301010517	5.192853774	5.466161867	5.739469961	5.100440921
Mar-26	6.983420494	5.40848231	5.847007902	6.139358297	5.10792532	5.376763495	5.645601669	4.974782753
Apr-26	7.139517211	5.566373075	6.017700622	6.318585653	5.173840022	5.446147392	5.718454761	5.102913189
May-26	7.368893674	5.688105085	6.149302795	6.456767935	5.07624271	5.343413379	5.610584048	5.102327991
Jun-26	7.412673049	5.742897973	6.208538349	6.518965267	4.992286084	5.255037983	5.517789882	5.006487034
Jul-26	7.19797232	5.727316999	6.191694053	6.501278756	4.813077044	5.066396888	5.319716733	4.849555397
Aug-26	7.107507045	5.601662528	6.055851382	6.358643951	4.672080114	4.917979067	5.16387802	4.706962111
Sep-26	7.142640514	5.473333856	5.917117682	6.212973566	4.791025783	5.043185035	5.295344286	4.843991352
Oct-26	7.331147281	5.585170211	6.03802185	6.339922942	5.14416779	5.414913463	5.685659136	5.144614443
Nov-26	7.37476986	5.664953649	6.124274215	6.430487926	5.429485212	5.715247592	6.001009972	5.28990966
Dec-26	7.418622898	5.760267135	6.227315821	6.538681612	5.437471479	5.723654189	6.009836898	5.315618915
Jan-27	7.220728861	5.728387032	6.192850846	6.502493388	5.398830848	5.68297984	5.967128832	5.279584818
Feb-27	7.213731421	5.726611382	6.190931224	6.500477785	5.397678093	5.681766414	5.965854734	5.274073342
Mar-27	7.278822495	5.611604747	6.066599727	6.369929713	5.34707306	5.628497958	5.909922856	5.174954325
Apr-27	7.447814936	5.757629694	6.224464534	6.535687761	5.385064189	5.66848862	5.951913051	5.265034024
May-27	7.6701445	5.853783974	6.328415107	6.644835862	5.284668902	5.562809371	5.840949839	5.257978872
Jun-27	7.71571967	5.922407599	6.402602809	6.72273295	5.204823176	5.478761237	5.752699299	5.166576782
Jul-27	7.511172303	5.897686386	6.375877174	6.694671032	5.024171948	5.28860205	5.553032153	5.024167871
Aug-27	7.415530113	5.77734283	6.245776033	6.558064835	4.895047056	5.152681112	5.410315167	4.886867773
Sep-27	7.468232684	5.659902495	6.118813509	6.424754184	5.151802477	5.422949975	5.694097474	5.026738175
Oct-27	7.60598947	5.750030553	6.216249246	6.527061709	5.414344579	5.699310083	5.984275587	5.279904634
Nov-27	7.651245259	5.841314186	6.314934255	6.630680968	5.629515291	5.92580557	6.222095848	5.437358762
Dec-27	7.695579736	5.898127401	6.376353947	6.695171644	5.623824506	5.91981527	6.215806033	5.427784901
Jan-28	7.434769256	5.813013604	6.284339031	6.598555983	5.530667715	5.82175549	6.112843264	5.336586862
Feb-28	7.385473063	5.799984894	6.270253939	6.583766636	5.512537222	5.80267076	6.092804298	5.312865047
Mar-28	7.478941149	5.662452235	6.121569983	6.427648483	5.370729374	5.653399341	5.936069308	5.171545528
Apr-28	7.663770038	5.819553732	6.29140944	6.605979912	5.42925689	5.715007253	6.000757615	5.286379002
May-28	7.886209044	5.953754889	6.436491772	6.758316361	5.354822108	5.636654851	5.918487593	5.297873351
Jun-28	7.933066998	6.014467213	6.502126716	6.827233052	5.248316958	5.524544166	5.800771374	5.200919154
Jul-28	7.58421738	5.944232181	6.426196953	6.7475068	5.032849175	5.297735973	5.562622772	5.004507977
Aug-28	7.499695641	5.829308127	6.301954732	6.617052468	4.904557362	5.16269196	5.420826558	4.866414705
Sep-28	7.567061842	5.643696988	6.101294041	6.406358743	5.047464982	5.313121033	5.578777085	4.967994204
Oct-28	7.694839425	5.809050232	6.280054305	6.59405702	5.534297239	5.825576041	6.116854843	5.282387911
Nov-28	7.74062506	5.90223745	6.380797244	6.699837106	5.718743451	6.019729949	6.320716446	5.429490097
Dec-28	7.786483831	5.945841735	6.427937011	6.749333861	5.73384779	6.035629253	6.337410715	5.404239802
Jan-29	7.421257921	5.821852452	6.293894542	6.60858927	5.59531982	5.889810337	6.184300854	5.248180914
Feb-29	7.338566702	5.73664599	6.201779449	6.511868421	5.502572043	5.792181098	6.081790153	5.156654413
Mar-29	7.407736064	5.542399656	5.991783411	6.291372582	5.22503106	5.500032694	5.775034329	4.954279845
Apr-29	7.618141726	5.738582992	6.203873504	6.51406718	5.359985228	5.642089714	5.924194199	5.142369004

PERIOD	ROCKIES CASCADE FORECAST PRICE	CASCADE ROCKIES HI FORECAST PRICE	CASCADE AECO LO FORECAST PRICE	AECO CASCADE FORECAST PRICE	CASCADE AECO HI FORECAST PRICE	CASCADE MALIN LO FORECAST PRICE	MALIN CASCADE FORECAST PRICE	CASCADE MALIN HI FORECAST PRICE
Jan-25	5.008500684	5.258925719	4.629903348	4.873582472	5.117261595	4.989906414	5.252533067	5.515159721
Feb-25	4.975590975	5.224370524	4.608553832	4.851109297	5.093664762	4.974253767	5.236056597	5.497859427
Mar-25	4.793830325	5.033521841	4.540965705	4.7799639	5.018962095	4.816017204	5.069491793	5.322966383
Apr-25	4.964105724	5.212311011	4.65243326	4.897298168	5.142163077	5.010302084	5.274002194	5.537702303
May-25	4.988897237	5.238342098	4.682211617	4.928643807	5.175075997	5.019304264	5.283478173	5.547652082
Jun-25	4.889285085	5.133749339	4.638138878	4.88225145	5.126364023	4.937451717	5.197317597	5.457183477
Jul-25	4.740156202	4.977164013	4.478136891	4.713828306	4.949519722	4.806020144	5.058968573	5.311917001
Aug-25	4.574154417	4.802862138	4.319536905	4.546880953	4.774225	4.650632348	4.895402471	5.140172595
Sep-25	4.697050674	4.931903208	4.398812501	4.630328948	4.861845396	4.73540323	4.984634979	5.233866728
Oct-25	4.968356741	5.216774578	4.656181809	4.901244009	5.14630621	5.027111846	5.29169668	5.556281514
Nov-25	5.300500206	5.565525216	4.864804233	5.120846561	5.376888889	5.23769275	5.51336079	5.789028829
Dec-25	5.405095029	5.67534978	4.837799481	5.092420506	5.347041532	5.216380337	5.490926671	5.765473004
Jan-26	5.382275005	5.651388755	4.812089253	5.065357108	5.318624964	5.17210002	5.44431581	5.716531601
Feb-26	5.36888518	5.637329439	4.796602477	5.049055239	5.301508001	5.161695851	5.433364054	5.705032257
Mar-26	5.236613425	5.498444096	4.828938198	5.08309284	5.337247482	5.075898099	5.343050631	5.610203162
Apr-26	5.371487567	5.640061946	4.883317103	5.140333793	5.397350483	5.203992295	5.477886627	5.751780958
May-26	5.37087157	5.639415148	4.959942237	5.220991828	5.48204142	5.260392548	5.537255313	5.814118079
Jun-26	5.269986351	5.533485669	4.896390784	5.154095562	5.41180034	5.16807544	5.440079411	5.712083381
Jul-26	5.104795154	5.360034912	4.71087605	4.958816894	5.206757739	4.983179497	5.245452102	5.507724707
Aug-26	4.954696959	5.202431807	4.564136498	4.804354208	5.044571919	4.846517279	5.101597136	5.356676993
Sep-26	5.098938266	5.353885179	4.67231311	4.918224326	5.164135542	4.984479691	5.246820727	5.509161763
Oct-26	5.415383624	5.686152805	4.920523285	5.179498195	5.438473104	5.253421649	5.529917525	5.806413402
Nov-26	5.568325957	5.846742255	5.071859919	5.338799914	5.60573991	5.41313933	5.6980414	5.98294347
Dec-26	5.595388331	5.875157748	5.036910838	5.302011408	5.567111979	5.400701851	5.684949317	5.969196782
Jan-27	5.557457703	5.835330588	4.997344737	5.260362881	5.523381025	5.349755602	5.631321686	5.91288777
Feb-27	5.55165615	5.829238957	4.995059494	5.257957362	5.52085523	5.346627788	5.62802925	5.909430713
Mar-27	5.447320342	5.719686359	5.068856031	5.335637927	5.602419823	5.317388278	5.597250819	5.87711336
Apr-27	5.542141078	5.819248132	5.107609732	5.376431296	5.645252861	5.414391558	5.699359534	5.984327511
May-27	5.534714602	5.811450332	5.162693757	5.434414481	5.706135205	5.457357053	5.744586371	6.03181569
Jun-27	5.438501876	5.71042697	5.098985988	5.367353671	5.635721355	5.369749704	5.65236811	5.934986515
Jul-27	5.288597759	5.553027646	4.911680712	5.170190223	5.428699734	5.183004784	5.455794509	5.728584235
Aug-27	5.14407134	5.401274907	4.772866251	5.024069738	5.275273225	5.05169419	5.317572832	5.583451473
Sep-27	5.291303342	5.555868509	4.887667893	5.144913572	5.40215925	5.193902048	5.467265314	5.740628579
Oct-27	5.557794351	5.835684069	5.111433598	5.380456419	5.64947924	5.446382219	5.733033914	6.01968561
Nov-27	5.723535539	6.009712316	5.244225122	5.52023697	5.796248819	5.610779859	5.906084062	6.201388265
Dec-27	5.713457791	5.99913068	5.214993983	5.48946735	5.763940718	5.58720799	5.881271569	6.175335147
Jan-28	5.617459854	5.898332847	5.120862346	5.390381416	5.659900487	5.498847966	5.788261017	6.077674068
Feb-28	5.592489523	5.872113999	5.101747946	5.370260996	5.638774046	5.472567181	5.760597033	6.048626885
Mar-28	5.443732135	5.715918741	5.078024648	5.345289103	5.612553559	5.316951583	5.59679114	5.876630698
Apr-28	5.564609475	5.842839949	5.16654743	5.438470979	5.710394528	5.458492754	5.745781846	6.033070939
May-28	5.57670879	5.85554423	5.233326232	5.508764454	5.784202677	5.517121264	5.807496068	6.097870871
Jun-28	5.474651741	5.748384328	5.137913124	5.408329605	5.678746085	5.408494737	5.693152355	5.977809973
Jul-28	5.267903133	5.53129829	4.906436487	5.164669987	5.422903486	5.213744241	5.488151832	5.762559424
Aug-28	5.122541794	5.378668884	4.777517729	5.028966031	5.280414332	5.08654913	5.354262242	5.621975354
Sep-28	5.229467583	5.490940963	4.911737352	5.170249844	5.428762336	5.246614853	5.522752476	5.7988901
Oct-28	5.560408328	5.838428744	5.229102255	5.504318163	5.779534072	5.567411195	5.860432837	6.153454479
Nov-28	5.715252734	6.001015371	5.354416998	5.636228419	5.91803984	5.71267422	6.013341284	6.314008349
Dec-28	5.688673476	5.97310715	5.320975642	5.601026992	5.881078342	5.71222723	6.012870769	6.313514307
Jan-29	5.524400963	5.800621011	5.187257577	5.460271133	5.73328469	5.530531073	5.821611656	6.112692239
Feb-29	5.428057277	5.699460141	5.09350415	5.361583316	5.629662482	5.442374857	5.728815639	6.015256421
Mar-29	5.215031416	5.475782987	4.95343365	5.214140684	5.474847719	5.171563118	5.443750651	5.715938183
Apr-29	5.413020004	5.683671004	5.101769481	5.370283664	5.638797848	5.391958089	5.675745357	5.959532625

PERIOD	NYMEX CURRENT MARKET	CASCADE NYMEX LO PROJECTED PRICE	NYMEX CASCADE PROJECTED PRICE	CASCADE NYMEX HI PROJECTED PRICE	CASCADE SUMAS LO FORECAST PRICE	SUMAS CASCADE FORECAST PRICE	CASCADE SUMAS HI FORECAST PRICE	CASCADE ROCKIES LO FORECAST PRICE
May-29	7.862548555	5.882445376	6.359400406	6.677370426	5.318063663	5.59796175	5.877859838	5.187751864
Jun-29	7.909267603	5.970222844	6.454294967	6.777009715	5.260221471	5.537075232	5.813928994	5.080428542
Jul-29	7.672975782	5.925536215	6.405985097	6.726284352	5.041037367	5.306355123	5.571672879	4.898116897
Aug-29	7.46394814	5.768247891	6.235943666	6.547740849	4.866280963	5.122401014	5.378521064	4.722330834
Sep-29	7.48147094	5.629166327	6.085585219	6.38986448	5.086030832	5.353716665	5.621402499	4.820261207
Oct-29	7.637834948	5.679038732	6.139501332	6.446476398	5.39998325	5.684192894	5.968402539	5.1225798
Nov-29	7.683282259	5.80900799	6.280008638	6.59400907	5.666229506	5.964452112	6.262674717	5.290860839
Dec-29	7.727064266	5.894342095	6.372261724	6.69087481	5.717151498	6.018054208	6.318956919	5.297578644
Jan-30	7.367588264	5.857346808	6.33226682	6.648880161	5.668181622	5.96650697	6.264832319	5.251020514
Feb-30	7.321648464	5.844755936	6.318655066	6.634587819	5.652267028	5.949754766	6.247242505	5.235030724
Mar-30	7.406757927	5.651078631	6.109274196	6.414737906	5.3627951	5.645047473	5.927299847	5.002567348
Apr-30	7.580241694	5.860636326	6.335823055	6.652614208	5.484706732	5.773375507	6.062044282	5.145747109
May-30	7.819005427	5.994241742	6.480261342	6.80427441	5.489615137	5.778542249	6.067469362	5.187345416
Jun-30	7.86546718	6.054519199	6.545426161	6.872697469	5.407456253	5.692059214	5.976662174	5.085189054
Jul-30	7.674693704	6.039804645	6.529518535	6.855994462	5.224090229	5.499042347	5.773994464	4.96363424
Aug-30	7.576169194	5.909768398	6.388938809	6.708385749	5.078127871	5.345397759	5.612667647	4.819570384
Sep-30	7.621866959	5.796888056	6.266906007	6.580251307	5.25502175	5.531601842	5.808181934	4.899749767
Oct-30	7.834628253	5.897418101	6.375587136	6.694366493	5.573282861	5.866613538	6.159944215	5.206878971
Nov-30	7.883184134	5.987347328	6.472807922	6.796448318	5.795249998	6.100263156	6.405276314	5.35798949
Dec-30	7.999686049	6.106775651	6.601919622	6.932015603	5.876833936	6.186140985	6.495448035	5.465264603
Jan-31	7.441264146	5.888864991	6.366340531	6.684657558	5.481198995	5.769683153	6.05816731	5.059866277
Feb-31	7.394864948	5.833589632	6.306583386	6.621912555	5.476689382	5.764936192	6.053183002	5.055280715
Mar-31	7.480825506	5.52348101	5.971330822	6.269897363	5.07507302	5.342182126	5.609291233	4.711242991
Apr-31	7.656044111	5.762721125	6.229968784	6.541467223	5.220102684	5.49484493	5.769587177	4.877753465
May-31	7.897195481	5.86878125	6.344628379	6.661859798	5.192546138	5.46583804	5.739129942	4.88725372
Jun-31	7.944121852	5.938843698	6.420371565	6.741390144	5.117111967	5.38643365	5.655755332	4.791622097
Jul-31	7.751440641	5.986801876	6.472218244	6.795829156	4.995140329	5.258042451	5.520944574	4.732079779
Aug-31	7.651930886	5.835037496	6.308148644	6.623556077	4.830819642	5.085073307	5.339326973	4.569676581
Sep-31	7.698085629	5.655714272	6.1142857	6.419999985	4.947225401	5.207605685	5.46798597	4.588400698
Oct-31	7.912974535	5.723514019	6.187582723	6.496961859	5.232198517	5.507577386	5.782956256	4.862130588
Nov-31	7.962015975	5.835569709	6.30872401	6.624160211	5.475172862	5.763339855	6.051506848	5.033539749
Dec-31	8.079682909	5.965520795	6.44921167	6.771672253	5.563658664	5.856482804	6.149306944	5.147973637
Jan-32	7.515676788	6.123585201	6.620092109	6.951096715	5.537435985	5.828879984	6.120323983	5.11188994
Feb-32	7.468813598	6.066157375	6.558007973	6.885908371	5.532881276	5.824085554	6.115289832	5.107258522
Mar-32	7.555633761	5.743972872	6.209700402	6.520185422	5.12724875	5.397103947	5.666959145	4.759780421
Apr-32	7.732604552	5.992529191	6.478409936	6.802330433	5.27372871	5.551293379	5.828858048	4.927956
May-32	7.976167436	6.102719383	6.597534468	6.927411192	5.245896599	5.52199642	5.798096241	4.937551257
Jun-32	8.023563071	6.175510119	6.676227156	7.010038514	5.169708087	5.441797986	5.713887885	4.840963318
Jul-32	7.828955047	6.225335827	6.730092786	7.066597426	5.046516732	5.312122876	5.57772902	4.780825577
Aug-32	7.728450195	6.06766162	6.559634184	6.887615893	4.880552839	5.137424041	5.394295243	4.616798346
Sep-32	7.775066485	5.881355404	6.358222059	6.676133162	4.998122655	5.261181742	5.524240829	4.635709705
Oct-32	7.992104281	5.951795328	6.434373328	6.756091994	5.285945502	5.56415316	5.842360818	4.912176894
Nov-32	8.041636135	6.068214558	6.560231954	6.888243552	5.531349591	5.822473254	6.113596916	5.085300146
Dec-32	8.160479738	6.203226044	6.706190317	7.041499833	5.62072025	5.916547632	6.212375014	5.200878374
Jan-33	7.590833556	6.273806136	6.782493119	7.121617775	5.594235345	5.888668784	6.183102223	5.164433839
Feb-33	7.543501734	6.21500073	6.718919708	7.054865694	5.589635089	5.883826409	6.17801773	5.159756107
Mar-33	7.631190099	5.885087664	6.362256934	6.68036978	5.179946238	5.452574987	5.725203736	4.808803225
Apr-33	7.809930598	6.139606353	6.637412273	6.969282887	5.327890998	5.608306313	5.888721629	4.97866056
May-33	8.05592911	6.252439788	6.759394366	7.097364084	5.299780565	5.578716385	5.857652204	4.988351769
Jun-33	8.103798701	6.326976629	6.839974734	7.181973471	5.222830168	5.497715966	5.772601764	4.890797951
Jul-33	7.907244598	6.377997556	6.895132493	7.239889118	5.098406899	5.366744105	5.63508131	4.830058833
Aug-33	7.805734697	6.216541059	6.720584929	7.056614175	4.930783367	5.190298281	5.449813195	4.66439133

PERIOD	ROCKIES CASCADE FORECAST PRICE	CASCADE ROCKIES HI FORECAST PRICE	CASCADE AECO LO FORECAST PRICE	AECO CASCADE FORECAST PRICE	CASCADE AECO HI FORECAST PRICE	CASCADE MALIN LO FORECAST PRICE	MALIN CASCADE FORECAST PRICE	CASCADE MALIN HI FORECAST PRICE
May-29	5.460791436	5.733831007	5.211185945	5.485458889	5.759731834	5.481238006	5.769724217	6.058210428
Jun-29	5.347819518	5.615210494	5.149202017	5.420212649	5.691223282	5.378251661	5.661317538	5.944383415
Jul-29	5.155912523	5.413708149	4.923186744	5.182301835	5.441416927	5.180725263	5.453395013	5.726064764
Aug-29	4.970874562	5.219418291	4.74223427	4.991825547	5.241416825	5.032105329	5.296952977	5.561800626
Sep-29	5.073959166	5.327657124	4.841089207	5.095883375	5.350677544	5.130796281	5.40083819	5.6708801
Oct-29	5.392189263	5.661798726	5.116181875	5.385454605	5.654727336	5.440063821	5.726382969	6.012702118
Nov-29	5.569327199	5.847793559	5.319814487	5.599804723	5.879794959	5.665000983	5.963158929	6.261316876
Dec-29	5.576398573	5.855218501	5.304657602	5.583850107	5.863042612	5.683741283	5.982885561	6.282029839
Jan-30	5.527390015	5.803759516	5.260501706	5.537370217	5.814238728	5.606183779	5.901246083	6.196308387
Feb-30	5.510558657	5.786086589	5.243035151	5.518984369	5.794933588	5.594335724	5.888774446	6.183213169
Mar-30	5.265860366	5.529153385	5.091783866	5.359772491	5.627761115	5.309505186	5.588952827	5.868400468
Apr-30	5.416575905	5.6874047	5.277821241	5.555601307	5.833381372	5.516672798	5.807023998	6.097375198
May-30	5.460363595	5.733381775	5.380849334	5.664051931	5.947254527	5.581680089	5.875452726	6.169225362
Jun-30	5.352830584	5.620472113	5.295492304	5.574202425	5.852912546	5.482261632	5.770801718	6.059341804
Jul-30	5.224878147	5.486122054	5.105258419	5.37395623	5.642654042	5.320467698	5.600492313	5.880516929
Aug-30	5.073231983	5.326893582	4.953052426	5.213739395	5.474426365	5.192321644	5.46560173	5.738881817
Sep-30	5.157631334	5.4155129	5.083173634	5.350709089	5.618244543	5.309247099	5.588681157	5.868115215
Oct-30	5.480925233	5.754971495	5.322579135	5.602714879	5.882850623	5.595910882	5.890432508	6.184954133
Nov-30	5.639988937	5.921988383	5.481180203	5.769663371	6.05814654	5.773442805	6.077308215	6.381173626
Dec-30	5.752910108	6.040555614	5.485621306	5.774338217	6.063055127	5.816310593	6.122432203	6.428553813
Jan-31	5.326175028	5.59248378	5.06944228	5.336255032	5.603067784	5.418581174	5.703769657	5.988958139
Feb-31	5.321348121	5.587415527	5.063365186	5.329858091	5.596350995	5.418178765	5.703346069	5.988513372
Mar-31	4.959203148	5.207163305	4.801351674	5.054054394	5.306757114	5.021250207	5.285526533	5.54980286
Apr-31	5.134477332	5.391201198	5.011148338	5.274892988	5.538637637	5.252388411	5.528829906	5.805271401
May-31	5.1444776	5.40170148	5.082692678	5.350202818	5.617712959	5.28553174	5.563717621	5.841903502
Jun-31	5.043812733	5.29600337	5.004028378	5.267398293	5.530768208	5.1926654	5.465963579	5.739261758
Jul-31	4.98113661	5.23019344	4.8751202	5.131705473	5.388290747	5.092481572	5.360506917	5.628532263
Aug-31	4.810185874	5.050695168	4.704493442	4.95209836	5.199703279	4.946155353	5.206479319	5.466803285
Sep-31	4.829895472	5.071390245	4.773658804	5.024904004	5.276149204	5.001993004	5.265255794	5.528518583
Oct-31	5.118032198	5.373933808	4.978987754	5.241039741	5.503091728	5.255052819	5.531634546	5.808216273
Nov-31	5.298462893	5.563386038	5.157962369	5.429434073	5.700905776	5.453147597	5.740155365	6.027163133
Dec-31	5.418919618	5.689865599	5.168533907	5.440562008	5.712590108	5.502530087	5.792136934	6.081743781
Jan-32	5.380936779	5.649983617	5.121561703	5.391117582	5.660673461	5.474191986	5.762307353	6.050422721
Feb-32	5.376061602	5.644864682	5.115423838	5.384656672	5.653889505	5.473785553	5.761879529	6.049973506
Mar-32	5.01029518	5.260809939	4.850790191	5.106094938	5.361399685	5.072887709	5.339881799	5.606875889
Apr-32	5.187322105	5.44668821	5.062684822	5.329141918	5.595599013	5.306337295	5.585618205	5.864899115
May-32	5.197422376	5.457293494	5.134944604	5.405204847	5.675465089	5.339812058	5.620854798	5.901897537
Jun-32	5.095750861	5.350538404	5.055493662	5.321572276	5.58765089	5.246017054	5.522123215	5.798229375
Jul-32	5.032447976	5.284070374	4.925296402	5.184522528	5.443748655	5.144831387	5.415611987	5.686392586
Aug-32	4.859787733	5.10277712	4.752963377	5.003119344	5.253275311	4.997041907	5.260044112	5.523046318
Sep-32	4.879694426	5.123679148	4.822820392	5.076653044	5.330485696	5.053437934	5.319408352	5.585378769
Oct-32	5.17071252	5.429248146	5.030202632	5.294950138	5.559697645	5.309028347	5.588450891	5.867873436
Nov-32	5.352947522	5.620594899	5.210966993	5.485228413	5.759489834	5.509104073	5.799056919	6.089009765
Dec-32	5.474608814	5.748339255	5.221644246	5.496467628	5.771291009	5.558980388	5.851558303	6.144136218
Jan-33	5.436246146	5.708058454	5.17420232	5.446528758	5.718855196	5.530358905	5.821430427	6.112501948
Feb-33	5.431322218	5.702888329	5.168003076	5.440003238	5.7120034	5.529948408	5.820998325	6.112048241
Mar-33	5.061898131	5.314993038	4.900723093	5.158655887	5.416588682	5.125041586	5.394780617	5.664519647
Apr-33	5.240695326	5.502730092	5.11473667	5.383933337	5.653130004	5.360825668	5.642974387	5.925123106
May-33	5.250896599	5.513441429	5.18771905	5.460756895	5.73379474	5.394635178	5.678563346	5.962491513
Jun-33	5.148208369	5.405618788	5.107473599	5.376287999	5.645102399	5.299902224	5.578844447	5.857786669
Jul-33	5.084272455	5.338486078	4.975974366	5.237867753	5.499761141	5.197704701	5.471268107	5.744831512
Aug-33	4.90988561	5.155379891	4.801918011	5.054650538	5.307383064	5.048437326	5.314144553	5.579851781

PERIOD	NYMEX CURRENT MARKET	CASCADE NYMEX LO PROJECTED PRICE	NYMEX CASCADE PROJECTED PRICE	CASCADE NYMEX HI PROJECTED PRICE	CASCADE SUMAS LO FORECAST PRICE	SUMAS CASCADE FORECAST PRICE	CASCADE SUMAS HI FORECAST PRICE	CASCADE ROCKIES LO FORECAST PRICE
Sep-33	7.85281715	6.025765729	6.514341328	6.840058395	5.049528882	5.31529356	5.581058238	4.683491802
Oct-33	8.072025323	6.097895366	6.592319315	6.92193528	5.340229957	5.621294692	5.902359426	4.962723663
Nov-33	8.122052497	6.217107261	6.721197039	7.057256891	5.588088087	5.882197986	6.176307886	5.137578148
Dec-33	8.242084535	6.355357403	6.870656652	7.214189484	5.678352453	5.977213108	6.276073764	5.254312157
Jan-34	7.666741891	6.42402707	6.94489413	7.292138836	5.651602698	5.949055472	6.246508245	5.217503177
Feb-34	7.618936751	6.363844085	6.879831444	7.223823016	5.64695644	5.944164673	6.241372907	5.212778668
Mar-34	7.707502	6.026202455	6.514813465	6.840554138	5.2331707	5.508600737	5.784030774	4.858316257
Apr-34	7.888029904	6.286683515	6.796414611	7.136235341	5.382594908	5.665889376	5.949183845	5.029872165
May-34	8.136488401	6.402160193	6.921254263	7.267316976	5.354203371	5.636003548	5.917803726	5.039660287
Jun-34	8.184836688	6.478443138	7.003722312	7.353908427	5.276483469	5.554193126	5.831902782	4.94113093
Jul-34	7.986317044	6.530659285	7.0601722	7.41318081	5.150815968	5.421911546	5.693007123	4.879784421
Aug-34	7.883792044	6.365420498	6.881535674	7.225612457	4.981516201	5.243701264	5.505886327	4.712460243
Sep-34	7.931345321	6.170176053	6.670460598	7.003983628	5.10144917	5.369946495	5.63844382	4.73175172
Oct-34	8.152745577	6.243995404	6.750265302	7.087778567	5.395057257	5.679007639	5.962958021	5.0137759
Nov-34	8.203273022	6.365999964	6.882162123	7.226270229	5.645393968	5.942519966	6.239645964	5.190378929
Dec-34	8.324505381	6.507488762	7.035122986	7.386879136	5.736560977	6.038485239	6.340409501	5.308280279
Jan-35	7.74340931	6.649358471	7.188495645	7.547920427	5.709543725	6.010046027	6.310548328	5.271103209
Feb-35	7.695126119	6.587109118	7.121199047	7.477258999	5.704851004	6.00510632	6.305361636	5.266331455
Mar-35	7.78457702	6.237874642	6.743648262	7.080830675	5.286927407	5.565186744	5.843446081	4.90832442
Apr-35	7.966910203	6.507299258	7.034918117	7.386664023	5.437845857	5.72404827	6.010250684	5.081595887
May-35	8.217853285	6.626740801	7.164044109	7.522246314	5.409170405	5.693863584	5.978556763	5.09148189
Jun-35	8.266685055	6.705642903	7.249343679	7.611810863	5.330673304	5.611235057	5.89179681	4.99196724
Jul-35	8.066180214	6.759651879	7.307731761	7.673118349	5.203749128	5.477630661	5.751512194	4.930007265
Aug-35	7.962629964	6.588739657	7.122961791	7.479109881	5.032756363	5.297638276	5.56252019	4.761009846
Sep-35	8.010658774	6.38679154	6.904639503	7.249871478	5.153888662	5.42514596	5.696403258	4.780494237
Oct-35	8.234273032	6.463145461	6.987184282	7.336543496	5.450432829	5.737297715	6.024162601	5.065338659
Nov-35	8.285305752	6.589339018	7.12360975	7.479790237	5.703272908	6.003445166	6.303617424	5.243707719
Dec-35	8.407750435	6.735685801	7.281822488	7.645913612	5.795351587	6.100370092	6.405388596	5.362788082
Jan-36	7.820843403	6.717239556	7.261880601	7.624974631	5.768064162	6.071646487	6.375228811	5.325239241
Feb-36	7.77207738	6.65436771	7.193911037	7.553606589	5.763324514	6.066657383	6.369990253	5.32041977
Mar-36	7.86242279	6.301640889	6.812584745	7.153213982	5.341221681	5.622338612	5.903455542	4.958832664
Apr-36	8.046579305	6.573759751	7.106767298	7.462105663	5.493649315	5.782788753	6.07192819	5.133836846
May-36	8.300031818	6.694395709	7.23718455	7.599043777	5.464687109	5.75230222	6.039917331	5.143821709
Jun-36	8.349351906	6.774086832	7.323337116	7.689503971	5.385405037	5.668847407	5.952289778	5.043311912
Jul-36	8.146842016	6.828635898	7.382309079	7.751424532	5.257211619	5.533906968	5.810602316	4.980732338
Aug-36	8.042256264	6.656014553	7.195691409	7.55547598	5.084508926	5.352114659	5.619720392	4.810044944
Sep-36	8.090765362	6.452046956	6.975185898	7.323945193	5.206852549	5.48089742	5.754942291	4.82972418
Oct-36	8.316615763	6.529164415	7.058556125	7.411483931	5.506362158	5.796170692	6.085979227	5.117417046
Nov-36	8.368158809	6.656619909	7.196345847	7.55616314	5.761730637	6.064979617	6.368228598	5.297569796
Dec-36	8.491827939	6.804430159	7.356140713	7.723947749	5.854730103	6.162873793	6.471017482	5.417840963
Jan-37	7.899051837	6.785799452	7.335999407	7.702799378	5.827169804	6.133862952	6.440556099	5.379916634
Feb-37	7.849798154	6.722298887	7.267350148	7.630717655	5.822382759	6.128823957	6.435265155	5.375048967
Mar-37	7.941047018	6.366044798	6.882210592	7.226321122	5.396058898	5.680061998	5.964065098	5.00984599
Apr-37	8.127045098	6.640884848	7.179334971	7.538301719	5.550010808	5.84211664	6.134222472	5.186600214
May-37	8.383032136	6.762727166	7.311056395	7.676609215	5.52075898	5.811325242	6.101891504	5.196684926
Jun-37	8.432845425	6.8432152	7.398070487	7.767974011	5.440684087	5.727035882	6.013387676	5.095170031
Jul-37	8.228310437	6.898309757	7.457632169	7.830513778	5.311208736	5.590746037	5.870283339	5.031964661
Aug-37	8.122678826	6.723962199	7.269148323	7.632605739	5.136779015	5.407135806	5.677492596	4.859570394
Sep-37	8.171673016	6.517954925	7.046437757	7.398759645	5.260346074	5.537206394	5.814066714	4.879446422
Oct-37	8.39978192	6.595843559	7.130641686	7.48717377	5.562850779	5.855632399	6.148414019	5.170016216
Nov-37	8.451840397	6.724573608	7.269809306	7.633299771	5.820772943	6.127129414	6.433485884	5.351970494
Dec-37	8.576746218	6.873861961	7.43120212	7.802762226	5.914702404	6.226002531	6.537302657	5.473444372

PERIOD	ROCKIES CASCADE FORECAST PRICE	CASCADE ROCKIES HI FORECAST PRICE	CASCADE AECO LO FORECAST PRICE	AECO CASCADE FORECAST PRICE	CASCADE AECO HI FORECAST PRICE	CASCADE MALIN LO FORECAST PRICE	MALIN CASCADE FORECAST PRICE	CASCADE MALIN HI FORECAST PRICE
Sep-33	4.929991371	5.176490939	4.872473596	5.128919575	5.385365553	5.105397313	5.374102435	5.642807557
Oct-33	5.223919646	5.485115628	5.081929658	5.34939964	5.616869622	5.36354363	5.6458354	5.92812717
Nov-33	5.407976998	5.678375848	5.264501662	5.541580697	5.818659732	5.565620113	5.858547488	6.151474862
Dec-33	5.530854903	5.807397648	5.275285689	5.552932304	5.830578919	5.615995192	5.911573886	6.207152581
Jan-34	5.492108608	5.766714038	5.227369343	5.502494046	5.777618748	5.587087494	5.881144731	6.175201968
Feb-34	5.48713544	5.761492212	5.221108107	5.495903271	5.770698434	5.586672893	5.880708308	6.174743723
Mar-34	5.114017113	5.369717968	4.951155324	5.211742446	5.472329568	5.177717002	5.450228423	5.722739844
Apr-34	5.294602279	5.559332393	5.167309037	5.43927267	5.711236304	5.415858924	5.700904131	5.985949337
May-34	5.304905565	5.570150844	5.241021241	5.516864464	5.792707687	5.45000653	5.736848979	6.023691428
Jun-34	5.201190453	5.461249976	5.159973335	5.431550879	5.703128423	5.354326247	5.636132891	5.917939536
Jul-34	5.13661518	5.393445939	5.027159109	5.291746431	5.556333753	5.251106748	5.527480788	5.803854827
Aug-34	4.960484467	5.20850869	4.851362191	5.106697043	5.362031895	5.100346699	5.368785999	5.637225299
Sep-34	4.980791284	5.229830849	4.922623332	5.18170877	5.440794209	5.157876286	5.429343459	5.700810632
Oct-34	5.277658842	5.541541784	5.134173954	5.404393636	5.674613318	5.418604066	5.703793754	5.988983442
Nov-34	5.463556768	5.736734606	5.318571679	5.598496504	5.87842133	5.622701315	5.918632963	6.214564611
Dec-34	5.587663452	5.867046624	5.329463546	5.609961627	5.890459708	5.673580144	5.972189625	6.270799106
Jan-35	5.548529694	5.825956179	5.281068037	5.559018986	5.836969935	5.644383369	5.941456178	6.238528987
Feb-35	5.543506795	5.820682135	5.274744188	5.552362303	5.829980419	5.643964621	5.941015391	6.238066161
Mar-35	5.166657284	5.424990148	5.002091877	5.265359871	5.528627864	5.230919172	5.506230707	5.781542242
Apr-35	5.349048302	5.616500717	5.220407127	5.495165397	5.769923667	5.471442514	5.759413172	6.047383831
May-35	5.359454621	5.627427352	5.294856453	5.573533109	5.852209764	5.505931595	5.795717469	6.085503342
Jun-35	5.254702357	5.517437475	5.212998068	5.487366388	5.761734707	5.409294509	5.69399422	5.978693931
Jul-35	5.189481332	5.448955398	5.078855701	5.346163895	5.61347209	5.305042816	5.584255595	5.863468375
Aug-35	5.011589311	5.262168777	4.901300813	5.159264013	5.417227214	5.152775166	5.423973859	5.695172552
Sep-35	5.032099197	5.283704157	4.973274565	5.235025858	5.496777151	5.210880049	5.485136894	5.759393739
Oct-35	5.33193543	5.598532202	5.186940694	5.459937573	5.732934451	5.474215107	5.762331692	6.050448276
Nov-35	5.519692335	5.795676952	5.373182396	5.655981469	5.938780543	5.680353328	5.979319292	6.278285257
Dec-35	5.645040086	5.92729209	5.384183181	5.667561243	5.950939305	5.731740945	6.033411521	6.335082097
Jan-36	5.605514991	5.88579074	5.335303717	5.616109176	5.896914635	5.702252203	6.00237074	6.302489277
Feb-36	5.600441863	5.880463956	5.32891663	5.609385927	5.889855223	5.701829268	6.001925545	6.302021822
Mar-36	5.219823857	5.480815049	5.053537796	5.319513469	5.585489143	5.284653363	5.562793014	5.840932665
Apr-36	5.404038785	5.674240724	5.274036198	5.551617051	5.829197903	5.527581939	5.818507304	6.109432669
May-36	5.414549167	5.685276626	5.349230018	5.63076844	5.912306862	5.562415911	5.855174644	6.147933376
Jun-36	5.308749381	5.57418685	5.266553049	5.543740051	5.820927054	5.464812454	5.752434162	6.04005587
Jul-36	5.242876145	5.505019952	5.131069258	5.401125534	5.671181811	5.359518244	5.641598151	5.923678059
Aug-36	5.063205204	5.316365465	4.951738821	5.212356653	5.472974486	5.205727918	5.479713597	5.753699277
Sep-36	5.083920189	5.338116199	5.024432311	5.288876117	5.553319923	5.26441385	5.541488263	5.818562676
Oct-36	5.386754785	5.656092524	5.240235101	5.516036948	5.791838796	5.530382258	5.821455009	6.112527759
Nov-36	5.576389259	5.855208722	5.42833922	5.714041284	5.999743348	5.738581861	6.040612485	6.34264311
Dec-36	5.702990487	5.988140011	5.439450013	5.725736856	6.012023698	5.790483355	6.095245637	6.400007918
Jan-37	5.663070141	5.946223648	5.390081754	5.673770268	5.957458781	5.760699725	6.063894447	6.36708917
Feb-37	5.657946281	5.940843596	5.383630796	5.666979786	5.950328775	5.76027256	6.0634448	6.36661704
Mar-37	5.273522095	5.5371982	5.105498174	5.374208604	5.642919034	5.338924897	5.619920944	5.900916991
Apr-37	5.459579173	5.732558131	5.32820156	5.608633221	5.889064882	5.584282758	5.878192377	6.172101996
May-37	5.470194659	5.743704392	5.404147318	5.688576124	5.97300493	5.61946507	5.91522639	6.210987709
Jun-37	5.363336875	5.631503719	5.320643579	5.600677452	5.880711325	5.520885579	5.811458504	6.102031429
Jul-37	5.296804907	5.561645152	5.18380495	5.45663679	5.729468629	5.414538426	5.699514133	5.98448984
Aug-37	5.115337256	5.371104119	5.002681209	5.26598022	5.529279231	5.259210197	5.536010733	5.81281127
Sep-37	5.136259391	5.393072361	5.076101634	5.343264878	5.610428122	5.318482988	5.598403146	5.878323303
Oct-37	5.442122333	5.714228449	5.294062452	5.572697318	5.851332184	5.587111081	5.881169559	6.175228037
Nov-37	5.633653151	5.915335809	5.484047612	5.772681697	6.061315782	5.79739268	6.10251861	6.407644541
Dec-37	5.761520392	6.049596411	5.495269513	5.784494224	6.073718935	5.849813188	6.157698093	6.465582998

PERIOD	NYMEX CURRENT MARKET	CASCADE NYMEX LO PROJECTED PRICE	NYMEX CASCADE PROJECTED PRICE	CASCADE NYMEX HI PROJECTED PRICE	CASCADE SUMAS LO FORECAST PRICE	SUMAS CASCADE FORECAST PRICE	CASCADE SUMAS HI FORECAST PRICE	CASCADE ROCKIES LO FORECAST PRICE
Jan-38	7.978042356	6.855044946	7.410859401	7.781402371	5.886866502	6.196701581	6.50653666	5.4351408
Feb-38	7.928296135	6.790909376	7.341523649	7.708599832	5.882031587	6.191612197	6.501192807	5.430224457
Mar-38	8.020457488	6.431092746	6.952532698	7.300159333	5.451444487	5.738362618	6.025280749	5.06136945
Apr-38	8.208315549	6.708681197	7.252628321	7.615259737	5.606935916	5.902037807	6.197139697	5.239891216
May-38	8.466862458	6.831741937	7.385666959	7.754950307	5.57739157	5.870938494	6.164485419	5.250076775
Jun-38	8.517173879	6.913034852	7.473551192	7.847228751	5.496515928	5.78580624	6.075096552	5.147546731
Jul-38	8.310593541	6.968680354	7.533708491	7.910393916	5.365745823	5.648153498	5.930561173	5.083709308
Aug-38	8.203905615	6.792589321	7.343339806	7.710506797	5.189571806	5.462707164	5.735842522	4.909591098
Sep-38	8.253389746	6.584521974	7.118402134	7.474322241	5.314374535	5.594078458	5.873782381	4.929665886
Oct-38	8.48377974	6.663189495	7.203448103	7.563620508	5.619904287	5.915688723	6.211473159	5.223141378
Nov-38	8.536358801	6.793206844	7.344007399	7.711207769	5.880405672	6.189900708	6.499395743	5.406915199
Dec-38	8.662513681	6.943988081	7.507014141	7.882364848	5.975274428	6.289762556	6.604250684	5.529603816
Jan-39	8.057822779	6.924982896	7.486467995	7.860791395	5.947160167	6.260168597	6.573177027	5.490917208
Feb-39	8.007579096	6.860205969	7.416438886	7.78726083	5.942276903	6.255028319	6.567779735	5.485951702
Mar-39	8.100662063	6.496791173	7.023558025	7.374735926	5.507383932	5.797246244	6.087108556	5.113408145
Apr-39	8.290398704	6.777155508	7.326654604	7.692987334	5.664430276	5.962558185	6.260686094	5.293715129
May-39	8.551531082	6.901446857	7.461023629	7.83407481	5.634590485	5.931147879	6.227705273	5.304002543
Jun-39	8.602345618	6.983552701	7.549786703	7.927276039	5.552906088	5.845164303	6.137422518	5.200447199
Jul-39	8.393699476	7.039754658	7.610545576	7.991072855	5.420828281	5.706135033	5.991441784	5.135971401
Aug-39	8.285944671	6.861902714	7.418273204	7.789186865	5.242892524	5.518834235	5.794775947	4.960112009
Sep-39	8.335923643	6.651754694	7.191086156	7.550640464	5.36894328	5.651519242	5.934095205	4.980387545
Oct-39	8.568617537	6.73120889	7.276982584	7.640831713	5.67752833	5.97634561	6.275162891	5.276797792
Nov-39	8.621722389	6.862526412	7.418947473	7.789894846	5.940634729	6.253299715	6.565964701	5.462409351

PERIOD	ROCKIES CASCADE FORECAST PRICE	CASCADE ROCKIES HI FORECAST PRICE	CASCADE AECO LO FORECAST PRICE	AECO CASCADE FORECAST PRICE	CASCADE AECO HI FORECAST PRICE	CASCADE MALIN LO FORECAST PRICE	MALIN CASCADE FORECAST PRICE	CASCADE MALIN HI FORECAST PRICE
Jan-38	5.721200842	6.007260884	5.445407572	5.73200797	6.018608369	5.819731722	6.126033392	6.432335062
Feb-38	5.716025744	6.001827031	5.438892104	5.725149584	6.011407063	5.819300286	6.125579248	6.431858211
Mar-38	5.327757316	5.594145182	5.157978156	5.42945069	5.700923225	5.393739146	5.677620154	5.961501161
Apr-38	5.515674965	5.791458713	5.382908576	5.666219553	5.949530531	5.641550586	5.938474301	6.235398016
May-38	5.526396606	5.802716436	5.459613791	5.746961885	6.03430998	5.677084721	5.975878654	6.274672587
Jun-38	5.418470244	5.689393756	5.375275015	5.658184226	5.941093438	5.577519434	5.871073089	6.164626743
Jul-38	5.351272956	5.618836603	5.237068	5.512703157	5.788338315	5.470108811	5.758009274	6.045909738
Aug-38	5.167990629	5.42639016	5.054133021	5.320140022	5.586147023	5.313227299	5.592870841	5.872514383
Sep-38	5.189121985	5.448578084	5.12828765	5.398197527	5.668107403	5.373092818	5.655887177	5.938681536
Oct-38	5.498043556	5.772945734	5.348428076	5.629924291	5.911420506	5.644407192	5.941481254	6.238555317
Nov-38	5.691489683	5.976064167	5.540313088	5.831908514	6.12350394	5.856791606	6.165043796	6.473295986
Dec-38	5.820635596	6.111667376	5.551647208	5.843839166	6.136031125	5.90973632	6.220775074	6.531813828
Jan-39	5.779912851	6.068908493	5.501286648	5.79082805	6.080369453	5.87935404	6.188793726	6.498233412
Feb-39	5.774686002	6.063420302	5.494706025	5.783901079	6.073096133	5.878918289	6.188335041	6.497751793
Mar-39	5.382534889	5.651661634	5.210982937	5.485245197	5.759507457	5.449101537	5.735896355	6.022691173
Apr-39	5.572331714	5.8509483	5.438162662	5.724381749	6.010600836	5.699391092	5.999359044	6.299326996
May-39	5.583160572	5.8623186	5.515634929	5.805931504	6.096228079	5.735280568	6.03713744	6.338994312
Jun-39	5.474154946	5.747862693	5.430452765	5.716266069	6.002079372	5.634719629	5.93128382	6.227848011
Jul-39	5.406285685	5.676599969	5.29086368	5.569330189	5.847796699	5.526234899	5.817089367	6.107943835
Aug-39	5.221170535	5.482229062	5.106099351	5.374841422	5.643583494	5.367784572	5.650299549	5.932814527
Sep-39	5.242513205	5.504638865	5.180995527	5.453679502	5.726363477	5.428248746	5.713946049	5.999643351
Oct-39	5.554523992	5.832250191	5.403337357	5.687723534	5.972109711	5.702276263	6.002396067	6.30251587
Nov-39	5.74990458	6.037399809	5.597141219	5.891727599	6.186313979	5.916784522	6.228194234	6.539603946

Cascade's Long Term Real Discount Rate: 4.170%
IRP Discount Rate = 7.631%
Years 21-45 Escalation = 2.60% (EIA Inflation Rate)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Category	1	2	3	4	5	6	7	8	9	10
IRP Annual Portfolio Cost Per Therm (PV)*	$ 0.27	$ 0.34	$ 0.36	$ 0.36	$ 0.34	$ 0.31	$ 0.29	$ 0.28	$ 0.27	$ 0.25
Nominal Cost Per Therm	$ 0.29	$ 0.40	$ 0.45	$ 0.49	$ 0.48	$ 0.48	$ 0.49	$ 0.51	$ 0.51	$ 0.52
Verification	$0.2736	$ 0.34	$0.3594	$0.3648	$0.3354	$0.3099	$0.2902	$0.2821	$0.2652	$0.2476
Resource Portfolio Cost - % Change		35.25%	12.50%	9.24%	-1.04%	-0.54%	0.79%	4.61%	1.20%	0.49%
PV of Resource Portfolio Cost/Therm	$ 0.27	$ 0.62	$ 0.98	$ 1.34	$ 1.68	$ 1.99	$ 2.28	$ 2.56	$ 2.82	$ 3.07
Portfolio Costs with 10% Conservation Credit	$0.30	$0.68	$1.07	$1.48	$1.84	$2.19	$2.50	$2.82	$3.11	$3.38
Cost-Effectiveness Limit	$0.3135	$0.3610	$0.3884	$0.4082	$0.4163	$0.4192	$0.4199	$0.4211	$0.4211	$0.4202

* 2012 IRP Basecase- Draft Medium Forecast Average Weather. 7.631% discount rate utilized in Sendout Model.

PRELIMIINARY AVOIDED COST ESTIMATES
BASECASE - MEDIUM FORECAST - AVERAGE WEATHER
45 YEAR RESOURCE SUMMARY COSTS - MELDED COST PER THERM

	YEAR	IRP ANNUAL PORTFOLIO COST PER THERM (PV)*	NOMINAL COST PER THERM	RESOURCE PORTFOLIO COST - % CHANGE	PV OF RESOURCE PORTFOLIO COST/THERM	Non-Energy Benefits %		PORTFOLIO COSTS INCLUDING CONSERVATION CREDIT	COST-EFFECTIVENESS LIMIT
2012	1	$ 0.27	$ 0.29		$ 0.27	5%		$ 0.2873	
2013	2	$ 0.34	$ 0.40	35.25%	$ 0.62	5%		$ 0.6483	
2014	3	$ 0.36	$ 0.45	12.50%	$ 0.98	5%		$ 1.0257	
2015	4	$ 0.36	$ 0.49	9.24%	$ 1.34	5%		$ 1.4087	
2016	**5**	**$ 0.34**	**$ 0.48**	**-1.04%**	**$ 1.68**	7.5%		**$ 1.8027**	**$0.4069**
2017	6	$ 0.31	$ 0.48	-0.54%	$ 1.99	7.5%		$ 2.1359	
2018	7	$ 0.29	$ 0.49	0.79%	$ 2.28	7.5%		$ 2.4479	
2019	8	$ 0.28	$ 0.51	4.61%	$ 2.56	7.5%		$ 2.7511	
2020	9	$ 0.27	$ 0.51	1.20%	$ 2.82	7.5%		$ 3.0362	
2021	**10**	**$ 0.25**	**$ 0.52**	**0.49%**	**$ 3.07**	10.0%		**$ 3.3792**	**$0.4202**
2022	11	$ 0.25	$ 0.55	6.93%	$ 3.32	10%		$ 3.6498	
2023	12	$ 0.23	$ 0.56	1.45%	$ 3.55	10%		$ 3.9049	
2024	13	$ 0.22	$ 0.57	1.36%	$ 3.77	10%		$ 4.1450	
2025	14	$ 0.20	$ 0.57	-0.30%	$ 3.97	10%		$ 4.3675	
2026	15	$ 0.20	$ 0.59	4.96%	$ 4.17	12.5%		$ 4.6887	
2027	16	$ 0.19	$ 0.61	3.03%	$ 4.36	12.5%		$ 4.9011	
2028	17	$ 0.18	$ 0.61	0.26%	$ 4.53	12.5%		$ 5.0990	
2029	18	$ 0.16	$ 0.61	-1.34%	$ 4.69	12.5%		$ 5.2804	
2030	19	$ 0.15	$ 0.62	2.67%	$ 4.85	12.5%		$ 5.4534	
2031	**20**	**$ 0.15**	**$ 0.65**	**4.90%**	**$ 5.00**	12.5%		**$ 5.6221**	**$0.4199**
2032	21	$ 0.14	$ 0.67	2.60%	$ 5.14	15%		$ 5.9113	
2033	22	$ 0.14	$ 0.69	2.60%	$ 5.28	15%		$ 6.0680	
2034	23	$ 0.13	$ 0.70	2.60%	$ 5.41	15%		$ 6.2173	
2035	24	$ 0.12	$ 0.72	2.60%	$ 5.53	15%		$ 6.3597	
2036	25	$ 0.12	$ 0.74	2.60%	$ 5.65	15%		$ 6.4954	
2037	26	$ 0.11	$ 0.76	2.60%	$ 5.76	17.5%		$ 6.7688	
2038	27	$ 0.11	$ 0.78	2.60%	$ 5.87	17.5%		$ 6.8948	
2039	28	$ 0.10	$ 0.80	2.60%	$ 5.97	17.5%		$ 7.0149	
2040	29	$ 0.10	$ 0.82	2.60%	$ 6.07	17.5%		$ 7.1294	
2041	**30**	**$ 0.09**	**$ 0.84**	**2.60%**	**$ 6.16**	**17.5%**		**$ 7.2385**	**$0.4273**
2042	31	$ 0.09	$ 0.87	2.60%	$ 6.25	20%		$ 7.4987	
2043	32	$ 0.08	$ 0.89	2.60%	$ 6.33	20%		$ 7.6000	
2044	33	$ 0.08	$ 0.91	2.60%	$ 6.41	20%		$ 7.6966	
2045	34	$ 0.08	$ 0.93	2.60%	$ 6.49	20%		$ 7.7886	
2046	35	$ 0.07	$ 0.96	2.60%	$ 6.56	20%		$ 7.8763	
2047	36	$ 0.07	$ 0.98	2.60%	$ 6.63	20%		$ 7.9600	
2048	37	$ 0.07	$ 1.01	2.60%	$ 6.70	20%		$ 8.0397	
2049	38	$ 0.06	$ 1.04	2.60%	$ 6.76	20%		$ 8.1157	
2050	39	$ 0.06	$ 1.06	2.60%	$ 6.82	20%		$ 8.1881	
2051	**40**	**$ 0.06**	**$ 1.09**	**2.60%**	**$ 6.88**	20%		**$ 8.2572**	**$0.4278**
2052	41	$ 0.05	$ 1.12	2.60%	$ 6.94	20%		$ 8.3230	
2053	42	$ 0.05	$ 1.15	2.60%	$ 6.99	20%		$ 8.3858	
2054	43	$ 0.05	$ 1.18	2.60%	$ 7.04	20%		$ 8.4456	
2055	44	$ 0.05	$ 1.21	2.60%	$ 7.09	20%		$ 8.5026	
2056	45	$ 0.05	$ 1.24	2.60%	$ 7.13	20%		$ 8.5570	

Cascade's Long Term Real Discount Rate: 4.170%
IRP Discount Rate = 7.631%
Revised Discount Rate= 7.631%
Years 21-45 Escalation = 2.60% (EIA Inflation Rate)

Conservation Credit % attempts to recognize non-quantifiable benefits associated with conservation, including benefits of price certainty & hedge against future carbon costs

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	$ 0.25	$ 0.23	$ 0.22	$ 0.20	$ 0.20	$ 0.19	$ 0.18	$ 0.16	$ 0.15	$ 0.15	$ 0.14	$ 0.14	$ 0.13	$ 0.12
	$ 0.55	$ 0.56	$ 0.57	$ 0.57	$ 0.59	$ 0.61	$ 0.61	$ 0.61	$ 0.62	$ 0.65	$ 0.67	$ 0.69	$ 0.70	$ 0.72
	$0.2460	$0.2319	$0.2184	$0.2023	$0.1973	$0.1888	$0.1759	$0.1612	$0.1538	$0.1499	$0.1429	$0.1362	$0.1299	$0.1238
	6.93%	1.45%	1.36%	-0.30%	4.96%	3.03%	0.26%	-1.34%	2.67%	4.90%	2.60%	2.60%	2.60%	2.60%
	$ 3.32	$ 3.55	$ 3.77	$ 3.97	$ 4.17	$ 4.36	$ 4.53	$ 4.69	$ 4.85	$ 5.00	$ 5.14	$ 5.28	$ 5.41	$ 5.53
	$3.65	$3.90	$4.15	$4.37	$4.58	$4.79	$4.99	$5.16	$5.33	$5.50	$5.65	$5.80	$5.95	$6.08
	$0.4204	$0.4202	$0.4195	$0.4181	$0.4173	$0.4164	$0.4152	$0.4135	$0.4119	$0.4106	$0.4094	$0.4082	$0.4071	$0.4060

	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
	25	26	27	28	29	30	31	32	33	34	35	36	37	38
$	0.12	$ 0.11	$ 0.11	$ 0.10	$ 0.10	$ 0.09	$ 0.09	$ 0.08	$ 0.08	$ 0.08	$ 0.07	$ 0.07	$ 0.07	$ 0.06
$	0.74	$ 0.76	$ 0.78	$ 0.80	$ 0.82	$ 0.84	$ 0.87	$ 0.89	$ 0.91	$ 0.93	$ 0.96	$ 0.98	$ 1.01	$ 1.04
	$0.1180	$0.1125	$0.1072	$0.1022	$0.0974	$0.0929	$0.0885	$0.0844	$0.0805	$0.0767	$0.0731	$0.0697	$0.0664	$0.0633
	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%
$	5.65	$ 5.76	$ 5.87	$ 5.97	$ 6.07	$ 6.16	$ 6.25	$ 6.33	$ 6.41	$ 6.49	$ 6.56	$ 6.63	$ 6.70	$ 6.76
	$6.21	$6.34	$6.45	$6.57	$6.67	$6.78	$6.87	$6.97	$7.06	$7.14	$7.22	$7.30	$7.37	$7.44
	$0.4049	$0.4038	$0.4028	$0.4019	$0.4009	$0.4000	$0.3991	$0.3983	$0.3974	$0.3966	$0.3958	$0.3950	$0.3943	$0.3935

2050	2051	2052	2053	2054	2055	2056
39	40	41	42	43	44	45
$ 0.06	$ 0.06	$ 0.05	$ 0.05	$ 0.05	$ 0.05	$ 0.05
$ 1.06	$ 1.09	$ 1.12	$ 1.15	$ 1.18	$ 1.21	$ 1.24
$0.0604	$0.0575	$0.0549	$0.0523	$0.0498	$0.0475	$0.0453
2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%
$ 6.82	$ 6.88	$ 6.94	$ 6.99	$ 7.04	$ 7.09	$ 7.13
$7.51	$7.57	$7.63	$7.69	$7.74	$7.79	$7.84
$0.3928	$0.3921	$0.3915	$0.3908	$0.3902	$0.3896	$0.3890

Cascade's Long Term Real Discount Rate: 4.170%
IRP Discount Rate = 7.631%
Years 21-45 Escalation = 2.60% (EIA Inflation Rate)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Category	1	2	3	4	5	6	7	8	9	10
IRP Annual Portfolio Cost Per Therm (PV)*	$ 0.27	$ 0.34	$ 0.36	$ 0.36	$ 0.34	$ 0.31	$ 0.29	$ 0.32	$ 0.29	$ 0.28
Nominal Cost Per Therm	$ 0.29	$ 0.40	$ 0.45	$ 0.49	$ 0.48	$ 0.48	$ 0.49	$ 0.57	$ 0.57	$ 0.58
Verification	$0.2736	$ 0.34	$0.3594	$0.3648	$0.3354	$0.3099	$0.2902	$0.3173	$0.2941	$0.2758
Resource Portfolio Cost - % Change		35.25%	12.50%	9.24%	-1.04%	-0.54%	0.79%	17.69%	-0.26%	0.93%
PV of Resource Portfolio Cost/Therm	$ 0.27	$ 0.62	$ 0.98	$ 1.34	$ 1.68	$ 1.99	$ 2.28	$ 2.59	$ 2.89	$ 3.16
Portfolio Costs with 10% Conservation Credit	$0.30	$0.68	$1.07	$1.48	$1.84	$2.19	$2.50	$2.85	$3.18	$3.48
Cost-Effectiveness Limit	$0.3135	$0.3610	$0.3884	$0.4082	$0.4163	$0.4192	$0.4199	$0.4269	$0.4306	$0.4328

* 2012 IRP Basecase- Draft Medium Forecast Average Weather. 7.631% discount rate utilized in Sendout Model.

PRELIMIINARY AVOIDED COST ESTIMATES
BASECASE - MEDIUM FORECAST - AVERAGE WEATHER - with Carbon 1 Scenario
45 YEAR RESOURCE SUMMARY COSTS - MELDED COST PER THERM

	YEAR	IRP ANNUAL PORTFOLIO COST PER THERM (PV)*	NOMINAL COST PER THERM	RESOURCE PORTFOLIO COST - % CHANGE	PV OF RESOURCE PORTFOLIO COST/THERM	Non-Energy Benefits %		PORTFOLIO COSTS INCLUDING CONSERVATION CREDIT	COST-EFFECTIVENESS LIMIT
2012	1	$ 0.27	$ 0.29		$ 0.27	5%		$ 0.2873	
2013	2	$ 0.34	$ 0.40	35.25%	$ 0.62	5%		$ 0.6483	
2014	3	$ 0.36	$ 0.45	12.50%	$ 0.98	5%		$ 1.0257	
2015	4	$ 0.36	$ 0.49	9.24%	$ 1.34	5%		$ 1.4087	
2016	**5**	**$ 0.34**	**$ 0.48**	**-1.04%**	**$ 1.68**	7.5%		**$ 1.8027**	**$0.4069**
2017	6	$ 0.31	$ 0.48	-0.54%	$ 1.99	7.5%		$ 2.1359	
2018	7	$ 0.29	$ 0.49	0.79%	$ 2.28	7.5%		$ 2.4479	
2019	8	$ 0.32	$ 0.57	17.69%	$ 2.59	7.5%		$ 2.7890	
2020	9	$ 0.29	$ 0.57	-0.26%	$ 2.89	7.5%		$ 3.1051	
2021	**10**	**$ 0.28**	**$ 0.58**	**0.93%**	**$ 3.16**	10.0%		**$ 3.4807**	**$0.4328**
2022	11	$ 0.28	$ 0.64	10.78%	$ 3.45	10%		$ 3.7928	
2023	12	$ 0.26	$ 0.64	-0.19%	$ 3.71	10%		$ 4.0824	
2024	13	$ 0.25	$ 0.65	2.04%	$ 3.96	10%		$ 4.3568	
2025	14	$ 0.23	$ 0.65	0.08%	$ 4.19	10%		$ 4.6121	
2026	15	$ 0.23	$ 0.69	6.76%	$ 4.42	12.5%		$ 4.9758	
2027	16	$ 0.22	$ 0.73	4.66%	$ 4.65	12.5%		$ 5.2275	
2028	17	$ 0.20	$ 0.71	-2.40%	$ 4.85	12.5%		$ 5.4558	
2029	18	$ 0.19	$ 0.73	3.33%	$ 5.04	12.5%		$ 5.6750	
2030	19	$ 0.19	$ 0.76	3.44%	$ 5.23	12.5%		$ 5.8857	
2031	**20**	**$ 0.18**	**$ 0.77**	**1.85%**	**$ 5.41**	12.5%		**$ 6.0850**	**$0.4545**
2032	21	$ 0.17	$ 0.79	2.60%	$ 5.58	15%		$ 6.4144	
2033	22	$ 0.16	$ 0.81	2.60%	$ 5.74	15%		$ 6.5996	
2034	23	$ 0.15	$ 0.83	2.60%	$ 5.89	15%		$ 6.7761	
2035	24	$ 0.15	$ 0.85	2.60%	$ 6.04	15%		$ 6.9444	
2036	25	$ 0.14	$ 0.88	2.60%	$ 6.18	15%		$ 7.1047	
2037	26	$ 0.13	$ 0.90	2.60%	$ 6.31	17.5%		$ 7.4154	
2038	27	$ 0.13	$ 0.92	2.60%	$ 6.44	17.5%		$ 7.5643	
2039	28	$ 0.12	$ 0.95	2.60%	$ 6.56	17.5%		$ 7.7063	
2040	29	$ 0.12	$ 0.97	2.60%	$ 6.67	17.5%		$ 7.8416	
2041	**30**	**$ 0.11**	**$ 1.00**	**2.60%**	**$ 6.78**	**17.5%**		**$ 7.9706**	**$0.4705**
2042	31	$ 0.10	$ 1.02	2.60%	$ 6.89	20%		$ 8.2657	
2043	32	$ 0.10	$ 1.05	2.60%	$ 6.99	20%		$ 8.3854	
2044	33	$ 0.10	$ 1.08	2.60%	$ 7.08	20%		$ 8.4996	
2045	34	$ 0.09	$ 1.10	2.60%	$ 7.17	20%		$ 8.6083	
2046	35	$ 0.09	$ 1.13	2.60%	$ 7.26	20%		$ 8.7120	
2047	36	$ 0.08	$ 1.16	2.60%	$ 7.34	20%		$ 8.8109	
2048	37	$ 0.08	$ 1.19	2.60%	$ 7.42	20%		$ 8.9051	
2049	38	$ 0.07	$ 1.22	2.60%	$ 7.50	20%		$ 8.9949	
2050	39	$ 0.07	$ 1.26	2.60%	$ 7.57	20%		$ 9.0805	
2051	**40**	**$ 0.07**	**$ 1.29**	**2.60%**	**$ 7.64**	20%		**$ 9.1622**	**$0.4747**
2052	41	$ 0.06	$ 1.32	2.60%	$ 7.70	20%		$ 9.2400	
2053	42	$ 0.06	$ 1.36	2.60%	$ 7.76	20%		$ 9.3141	
2054	43	$ 0.06	$ 1.39	2.60%	$ 7.82	20%		$ 9.3848	
2055	44	$ 0.06	$ 1.43	2.60%	$ 7.88	20%		$ 9.4522	
2056	45	$ 0.05	$ 1.47	2.60%	$ 7.93	20%		$ 9.5165	

Cascade's Long Term Real Discount Rate: 4.170%
IRP Discount Rate = 7.631%
Revised Discount Rate= 7.631%
Years 21-45 Escalation = 2.60% (EIA Inflation Rate)

Conservation Credit % attempts to recognize non-quantifiable benefits associated with conservation, including benefits of price certainty & hedge against future carbon costs
Carbon estimated at $15/ton, applies to Natural Gas 2017

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
	11	12	13	14	15	16	17	18	19	20	21	22	23	24
$	0.28	$ 0.26	$ 0.25	$ 0.23	$ 0.23	$ 0.22	$ 0.20	$ 0.19	$ 0.19	$ 0.18	$ 0.17	$ 0.16	$ 0.15	$ 0.15
$	0.64	$ 0.64	$ 0.65	$ 0.65	$ 0.69	$ 0.73	$ 0.71	$ 0.73	$ 0.76	$ 0.77	$ 0.79	$ 0.81	$ 0.83	$ 0.85
	$0.2838	$0.2632	$0.2495	$0.2320	$0.2301	$0.2238	$0.2029	$0.1948	$0.1872	$0.1772	$0.1689	$0.1610	$0.1535	$0.1463
	10.78%	-0.19%	2.04%	0.08%	6.76%	4.66%	-2.40%	3.33%	3.44%	1.85%	2.60%	2.60%	2.60%	2.60%
$	3.45	$ 3.71	$ 3.96	$ 4.19	$ 4.42	$ 4.65	$ 4.85	$ 5.04	$ 5.23	$ 5.41	$ 5.58	$ 5.74	$ 5.89	$ 6.04
	$3.79	$4.08	$4.36	$4.61	$4.87	$5.11	$5.33	$5.55	$5.75	$5.95	$6.14	$6.31	$6.48	$6.64
	$0.4369	$0.4393	$0.4409	$0.4415	$0.4428	$0.4442	$0.4443	$0.4444	$0.4445	$0.4444	$0.4442	$0.4440	$0.4436	$0.4433

	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
	25	26	27	28	29	30	31	32	33	34	35	36	37	38
	$ 0.14	$ 0.13	$ 0.13	$ 0.12	$ 0.12	$ 0.11	$ 0.10	$ 0.10	$ 0.10	$ 0.09	$ 0.09	$ 0.08	$ 0.08	$ 0.07
	$ 0.88	$ 0.90	$ 0.92	$ 0.95	$ 0.97	$ 1.00	$ 1.02	$ 1.05	$ 1.08	$ 1.10	$ 1.13	$ 1.16	$ 1.19	$ 1.22
	$0.1395	$0.1329	$0.1267	$0.1208	$0.1152	$0.1098	$0.1046	$0.0998	$0.0951	$0.0906	$0.0864	$0.0824	$0.0785	$0.0749
	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%
	$ 6.18	$ 6.31	$ 6.44	$ 6.56	$ 6.67	$ 6.78	$ 6.89	$ 6.99	$ 7.08	$ 7.17	$ 7.26	$ 7.34	$ 7.42	$ 7.50
	$6.80	$6.94	$7.08	$7.21	$7.34	$7.46	$7.58	$7.69	$7.79	$7.89	$7.99	$8.08	$8.16	$8.25
	$0.4429	$0.4424	$0.4420	$0.4415	$0.4410	$0.4405	$0.4399	$0.4394	$0.4389	$0.4383	$0.4378	$0.4373	$0.4367	$0.4362

2050	2051	2052	2053	2054	2055	2056
39	40	41	42	43	44	45
$ 0.07	$ 0.07	$ 0.06	$ 0.06	$ 0.06	$ 0.06	$ 0.05
$ 1.26	$ 1.29	$ 1.32	$ 1.36	$ 1.39	$ 1.43	$ 1.47
$0.0714	$0.0680	$0.0648	$0.0618	$0.0589	$0.0562	$0.0535
2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%
$ 7.57	$ 7.64	$ 7.70	$ 7.76	$ 7.82	$ 7.88	$ 7.93
$8.32	$8.40	$8.47	$8.54	$8.60	$8.66	$8.72
$0.4357	$0.4351	$0.4346	$0.4341	$0.4336	$0.4331	$0.4326

Cascade's Long Term Real Discount Rate: 4.170%
IRP Discount Rate = 7.631%
Years 21-45 Escalation = 2.60% (EIA Inflation Rate)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Category	1	2	3	4	5	6	7	8	9	10
IRP Annual Portfolio Cost Per Therm (PV)*	$ 0.27	$ 0.34	$ 0.36	$ 0.36	$ 0.34	$ 0.31	$ 0.29	$ 0.32	$ 0.31	$ 0.28
Nominal Cost Per Therm	$ 0.29	$ 0.40	$ 0.45	$ 0.49	$ 0.48	$ 0.48	$ 0.49	$ 0.58	$ 0.59	$ 0.59
Verification	$0.2736	$ 0.34	$0.3594	$0.3648	$0.3354	$0.3099	$0.2902	$0.3232	$0.3056	$0.2814
Resource Portfolio Cost - % Change		35.25%	12.50%	9.24%	-1.04%	-0.54%	0.79%	19.85%	1.79%	-0.89%
PV of Resource Portfolio Cost/Therm	$ 0.27	$ 0.62	$ 0.98	$ 1.34	$ 1.68	$ 1.99	$ 2.28	$ 2.60	$ 2.91	$ 3.19
Portfolio Costs with 10% Conservation Credit	$0.30	$0.68	$1.07	$1.48	$1.84	$2.19	$2.50	$2.86	$3.20	$3.51
Cost-Effectiveness Limit	$0.3135	$0.3610	$0.3884	$0.4082	$0.4163	$0.4192	$0.4199	$0.4278	$0.4332	$0.4359

* 2012 IRP Basecase- Draft Medium Forecast Average Weather. 7.631% discount rate utilized in Sendout Model.

PRELIMIINARY AVOIDED COST ESTIMATES
BASECASE - MEDIUM FORECAST - AVERAGE WEATHER - Carbon 2 scenario
45 YEAR RESOURCE SUMMARY COSTS - MELDED COST PER THERM

	YEAR	IRP ANNUAL PORTFOLIO COST PER THERM (PV)*	NOMINAL COST PER THERM	RESOURCE PORTFOLIO COST - % CHANGE	PV OF RESOURCE PORTFOLIO COST/THERM	Non-Energy Benefits %	PORTFOLIO COSTS INCLUDING CONSERVATION CREDIT	COST-EFFECTIVENESS LIMIT
2012	1	$ 0.27	$ 0.29		$ 0.27	10%	$ 0.3010	
2013	2	$ 0.34	$ 0.40	35.25%	$ 0.62	10%	$ 0.6792	
2014	3	$ 0.36	$ 0.45	12.50%	$ 0.98	10%	$ 1.0745	
2015	4	$ 0.36	$ 0.49	9.24%	$ 1.34	10%	$ 1.4757	
2016	**5**	**$ 0.34**	**$ 0.48**	**-1.04%**	**$ 1.68**	**10%**	**$ 1.8446**	**$0.4163**
2017	6	$ 0.31	$ 0.48	-0.54%	$ 1.99	10%	$ 2.1856	
2018	7	$ 0.29	$ 0.49	0.79%	$ 2.28	10%	$ 2.5048	
2019	8	$ 0.32	$ 0.58	19.85%	$ 2.60	10%	$ 2.8603	
2020	9	$ 0.31	$ 0.59	1.79%	$ 2.91	10%	$ 3.1964	
2021	**10**	**$ 0.28**	**$ 0.59**	**-0.89%**	**$ 3.19**	**10%**	**$ 3.5060**	**$0.4359**
2022	11	$ 0.29	$ 0.65	10.97%	$ 3.48	10%	$ 3.8252	
2023	12	$ 0.27	$ 0.65	-0.05%	$ 3.75	10%	$ 4.1215	
2024	13	$ 0.26	$ 0.68	4.67%	$ 4.01	10%	$ 4.4098	
2025	14	$ 0.24	$ 0.67	-2.24%	$ 4.25	10%	$ 4.6715	
2026	15	$ 0.24	$ 0.71	7.05%	$ 4.48	10%	$ 4.9319	
2027	16	$ 0.23	$ 0.75	4.93%	$ 4.71	10%	$ 5.1858	
2028	17	$ 0.22	$ 0.76	0.96%	$ 4.93	10%	$ 5.4239	
2029	18	$ 0.20	$ 0.76	0.20%	$ 5.13	10%	$ 5.6456	
2030	19	$ 0.19	$ 0.78	3.57%	$ 5.33	10%	$ 5.8589	
2031	**20**	**$ 0.19**	**$ 0.83**	**5.90%**	**$ 5.52**	**10%**	**$ 6.0688**	**$0.4533**
2032	21	$ 0.17	$ 0.85	2.60%	$ 5.70	10%	$ 6.2689	
2033	22	$ 0.16	$ 0.87	2.60%	$ 5.87	10%	$ 6.4596	
2034	23	$ 0.17	$ 0.90	2.60%	$ 6.04	10%	$ 6.6414	
2035	24	$ 0.16	$ 0.92	2.60%	$ 6.20	10%	$ 6.8147	
2036	25	$ 0.15	$ 0.94	2.60%	$ 6.35	10%	$ 6.9799	
2037	26	$ 0.14	$ 0.97	2.60%	$ 6.49	10%	$ 7.1374	
2038	27	$ 0.14	$ 0.99	2.60%	$ 6.63	10%	$ 7.2875	
2039	28	$ 0.13	$ 1.02	2.60%	$ 6.76	10%	$ 7.4306	
2040	29	$ 0.12	$ 1.05	2.60%	$ 6.88	10%	$ 7.5671	
2041	**30**	**$ 0.12**	**$ 1.07**	**2.60%**	**$ 7.00**	**10%**	**$ 7.6971**	**$0.4544**
2042	31	$ 0.11	$ 1.10	2.60%	$ 7.11	10%	$ 7.8211	
2043	32	$ 0.11	$ 1.13	2.60%	$ 7.22	10%	$ 7.9392	
2044	33	$ 0.10	$ 1.16	2.60%	$ 7.32	10%	$ 8.0519	
2045	34	$ 0.10	$ 1.19	2.60%	$ 7.42	10%	$ 8.1593	
2046	35	$ 0.09	$ 1.22	2.60%	$ 7.51	10%	$ 8.2616	
2047	36	$ 0.09	$ 1.25	2.60%	$ 7.60	10%	$ 8.3592	
2048	37	$ 0.08	$ 1.28	2.60%	$ 7.68	10%	$ 8.4522	
2049	38	$ 0.08	$ 1.32	2.60%	$ 7.76	10%	$ 8.5409	
2050	39	$ 0.08	$ 1.35	2.60%	$ 7.84	10%	$ 8.6254	
2051	**40**	**$ 0.07**	**$ 1.39**	**2.60%**	**$ 7.91**	**10%**	**$ 8.7060**	**$0.4510**
2052	41	$ 0.07	$ 1.42	2.60%	$ 7.98	10%	$ 8.7828	
2053	42	$ 0.07	$ 1.46	2.60%	$ 8.05	10%	$ 8.8560	
2054	43	$ 0.06	$ 1.50	2.60%	$ 8.11	10%	$ 8.9258	
2055	44	$ 0.06	$ 1.54	2.60%	$ 8.17	10%	$ 8.9923	
2056	45	$ 0.06	$ 1.58	2.60%	$ 8.23	10%	$ 9.0557	

Cascade's Long Term Real Discount Rate: 4.170%
IRP Discount Rate = 7.631%
Revised Discount Rate= 7.631%
Years 21-45 Escalation = 2.60% (EIA Inflation Rate)

Conservation Credit % attempts to recognize non-quantifiable benefits associated with conservation, including benefits of price certainty & hedge against future carbon costs
Carbon estimated at $20/ton, applies to Natural Gas 2017

Cascade's Long Term Real Discount Rate:
IRP Discount Rate =
Years 21-45 Escalation =

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Category	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
IRP Annual Portfolio Cost Per Therm (PV)*	$ 0.29	$ 0.27	$ 0.26	$ 0.24	$ 0.24	$ 0.23	$ 0.22	$ 0.20	$ 0.19	$ 0.19	$ 0.17	$ 0.16	$ 0.17	$ 0.16	$ 0.15
Nominal Cost Per Therm	$ 0.65	$ 0.65	$ 0.68	$ 0.67	$ 0.71	$ 0.75	$ 0.76	$ 0.76	$ 0.78	$ 0.83	$ 0.85	$ 0.87	$ 0.90	$ 0.92	$ 0.94
Verification	$0.2901	$0.2694	$0.2620	$0.2380	$0.2367	$0.2308	$0.2165	$0.2015	$0.1939	$0.1908	$0.1819	$0.1734	$0.1653	$0.1576	$0.1502
Resource Portfolio Cost - % Change	10.97%	-0.05%	4.67%	-2.24%	7.05%	4.93%	0.96%	0.20%	3.57%	5.90%	2.60%	2.60%	2.60%	2.60%	2.60%
PV of Resource Portfolio Cost/Therm	$ 3.48	$ 3.75	$ 4.01	$ 4.25	$ 4.48	$ 4.71	$ 4.93	$ 5.13	$ 5.33	$ 5.52	$ 5.70	$ 5.87	$ 6.04	$ 6.20	$ 6.35
Portfolio Costs with 10% Conservation Credit	$3.83	$4.12	$4.41	$4.67	$4.93	$5.19	$5.42	$5.65	$5.86	$6.07	$6.27	$6.46	$6.64	$6.81	$6.98
Cost-Effectiveness Limit	$0.4406	$0.4435	$0.4463	$0.4472	$0.4489	$0.4506	$0.4517	$0.4521	$0.4526	$0.4533	$0.4539	$0.4543	$0.4546	$0.4548	$0.4549

* 2012 IRP Basecase- Draft Medium Forecast Average Weat

Cascade's Long Term Real Discount Rate:
IRP Discount Rate =
Years 21-45 Escalation =

	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051
Category	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
IRP Annual Portfolio Cost Per Therm (PV)*	$ 0.14	$ 0.14	$ 0.13	$ 0.12	$ 0.12	$ 0.11	$ 0.11	$ 0.10	$ 0.10	$ 0.09	$ 0.09	$ 0.08	$ 0.08	$ 0.08	$ 0.07
Nominal Cost Per Therm	$ 0.97	$ 0.99	$ 1.02	$ 1.05	$ 1.07	$ 1.10	$ 1.13	$ 1.16	$ 1.19	$ 1.22	$ 1.25	$ 1.28	$ 1.32	$ 1.35	$ 1.39
Verification	$0.1432	$0.1365	$0.1301	$0.1240	$0.1182	$0.1127	$0.1074	$0.1024	$0.0976	$0.0931	$0.0887	$0.0846	$0.0806	$0.0768	$0.0732
Resource Portfolio Cost - % Change	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%
PV of Resource Portfolio Cost/Therm	$ 6.49	$ 6.63	$ 6.76	$ 6.88	$ 7.00	$ 7.11	$ 7.22	$ 7.32	$ 7.42	$ 7.51	$ 7.60	$ 7.68	$ 7.76	$ 7.84	$ 7.91
Portfolio Costs with 10% Conservation Credit	$7.14	$7.29	$7.43	$7.57	$7.70	$7.82	$7.94	$8.05	$8.16	$8.26	$8.36	$8.45	$8.54	$8.63	$8.71
Cost-Effectiveness Limit	$0.4549	$0.4548	$0.4547	$0.4546	$0.4544	$0.4541	$0.4539	$0.4536	$0.4532	$0.4529	$0.4526	$0.4522	$0.4518	$0.4514	$0.4510

* 2012 IRP Basecase- Draft Medium Forecast Average Weat

Cascade's Long Term Real Discount Rate:
IRP Discount Rate =
Years 21-45 Escalation =

	2052	2053	2054	2055	2056
Category	41	42	43	44	45
IRP Annual Portfolio Cost Per Therm (PV)*	$ 0.07	$ 0.07	$ 0.06	$ 0.06	$ 0.06
Nominal Cost Per Therm	$ 1.42	$ 1.46	$ 1.50	$ 1.54	$ 1.58
Verification	$0.0698	$0.0666	$0.0634	$0.0605	$0.0577
Resource Portfolio Cost - % Change	2.60%	2.60%	2.60%	2.60%	2.60%
PV of Resource Portfolio Cost/Therm	$ 7.98	$ 8.05	$ 8.11	$ 8.17	$ 8.23
Portfolio Costs with 10% Conservation Credit	$8.78	$8.86	$8.93	$8.99	$9.06
Cost-Effectiveness Limit	$0.4507	$0.4503	$0.4499	$0.4495	$0.4491

* 2012 IRP Basecase- Draft Medium Forecast Average Weat

Cascade's Long Term Real Discount Rate: 4.170%
IRP Discount Rate = 7.631%
Years 21-45 Escalation = 2.60% (EIA Inflation Rate)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Category	1	2	3	4	5	6	7	8	9	10
IRP Annual Portfolio Cost Per Therm (PV)*	$ 0.27	$ 0.34	$ 0.36	$ 0.36	$ 0.34	$ 0.31	$ 0.29	$ 0.35	$ 0.32	$ 0.30
Nominal Cost Per Therm	$ 0.29	$ 0.40	$ 0.45	$ 0.49	$ 0.48	$ 0.48	$ 0.49	$ 0.62	$ 0.63	$ 0.63
Verification	$0.2736	$ 0.34	$0.3594	$0.3648	$0.3354	$0.3099	$0.2902	$0.3467	$0.3229	$0.3039
Resource Portfolio Cost - % Change		35.25%	12.50%	9.24%	-1.04%	-0.54%	0.79%	28.58%	0.24%	1.29%
PV of Resource Portfolio Cost/Therm	$ 0.27	$ 0.62	$ 0.98	$ 1.34	$ 1.68	$ 1.99	$ 2.28	$ 2.62	$ 2.95	$ 3.25
Portfolio Costs with 10% Conservation Credit	$0.30	$0.68	$1.07	$1.48	$1.84	$2.19	$2.50	$2.89	$3.24	$3.58
Cost-Effectiveness Limit	$0.3135	$0.3610	$0.3884	$0.4082	$0.4163	$0.4192	$0.4199	$0.4317	$0.4393	$0.4446

* 2012 IRP Basecase- Draft Medium Forecast Average Weather. 7.631% discount rate utilized in Sendout Model.

PRELIMIINARY AVOIDED COST ESTIMATES
BASECASE - MEDIUM FORECAST - AVERAGE WEATHER - Carbon 3 scenario
45 YEAR RESOURCE SUMMARY COSTS - MELDED COST PER THERM

YEAR		IRP ANNUAL PORTFOLIO COST PER THERM (PV)*	NOMINAL COST PER THERM	RESOURCE PORTFOLIO COST - % CHANGE	PV OF RESOURCE PORTFOLIO COST/THERM	Non-Energy Benefits %		PORTFOLIO COSTS INCLUDING CONSERVATION CREDIT	COST-EFFECTIVENESS LIMIT
2012	1	$ 0.27	$ 0.29		$ 0.27	10%		$ 0.3010	
2013	2	$ 0.34	$ 0.40	35.25%	$ 0.62	10%		$ 0.6792	
2014	3	$ 0.36	$ 0.45	12.50%	$ 0.98	10%		$ 1.0745	
2015	4	$ 0.36	$ 0.49	9.24%	$ 1.34	10%		$ 1.4757	
2016	**5**	**$ 0.34**	**$ 0.48**	**-1.04%**	**$ 1.68**	**10%**		**$ 1.8446**	**$0.4163**
2017	6	$ 0.31	$ 0.48	-0.54%	$ 1.99	10%		$ 2.1856	
2018	7	$ 0.29	$ 0.49	0.79%	$ 2.28	10%		$ 2.5048	
2019	8	$ 0.35	$ 0.62	28.58%	$ 2.62	10%		$ 2.8862	
2020	9	$ 0.32	$ 0.63	0.24%	$ 2.95	10%		$ 3.2414	
2021	**10**	**$ 0.30**	**$ 0.63**	**1.29%**	**$ 3.25**	**10%**		**$ 3.5756**	**$0.4446**
2022	11	$ 0.31	$ 0.69	9.46%	$ 3.56	10%		$ 3.9156	
2023	12	$ 0.29	$ 0.70	0.39%	$ 3.85	10%		$ 4.2327	
2024	13	$ 0.28	$ 0.73	4.81%	$ 4.13	10%		$ 4.5415	
2025	14	$ 0.26	$ 0.72	-1.92%	$ 4.38	10%		$ 4.8229	
2026	15	$ 0.26	$ 0.77	7.90%	$ 4.64	10%		$ 5.1050	
2027	16	$ 0.25	$ 0.82	5.67%	$ 4.89	10%		$ 5.3819	
2028	17	$ 0.24	$ 0.83	1.21%	$ 5.13	10%		$ 5.6424	
2029	18	$ 0.22	$ 0.83	0.79%	$ 5.35	10%		$ 5.8862	
2030	19	$ 0.21	$ 0.87	3.88%	$ 5.57	10%		$ 6.1216	
2031	**20**	**$ 0.21**	**$ 0.92**	**6.26%**	**$ 5.78**	**10%**		**$ 6.3540**	**$0.4746**
2032	21	$ 0.19	$ 0.94	2.60%	$ 5.98	10%		$ 6.5755	
2033	22	$ 0.18	$ 0.97	2.60%	$ 6.17	10%		$ 6.7867	
2034	23	$ 0.18	$ 0.99	2.60%	$ 6.35	10%		$ 6.9879	
2035	24	$ 0.17	$ 1.02	2.60%	$ 6.53	10%		$ 7.1798	
2036	25	$ 0.17	$ 1.05	2.60%	$ 6.69	10%		$ 7.3627	
2037	26	$ 0.16	$ 1.07	2.60%	$ 6.85	10%		$ 7.5371	
2038	27	$ 0.15	$ 1.10	2.60%	$ 7.00	10%		$ 7.7033	
2039	28	$ 0.14	$ 1.13	2.60%	$ 7.15	10%		$ 7.8618	
2040	29	$ 0.14	$ 1.16	2.60%	$ 7.28	10%		$ 8.0128	
2041	**30**	**$ 0.13**	**$ 1.19**	**2.60%**	**$ 7.42**	**10%**		**$ 8.1568**	**$0.4815**
2042	31	$ 0.12	$ 1.22	2.60%	$ 7.54	10%		$ 8.2940	
2043	32	$ 0.12	$ 1.25	2.60%	$ 7.66	10%		$ 8.4249	
2044	33	$ 0.11	$ 1.28	2.60%	$ 7.77	10%		$ 8.5496	
2045	34	$ 0.11	$ 1.32	2.60%	$ 7.88	10%		$ 8.6685	
2046	35	$ 0.10	$ 1.35	2.60%	$ 7.98	10%		$ 8.7818	
2047	36	$ 0.10	$ 1.39	2.60%	$ 8.08	10%		$ 8.8898	
2048	37	$ 0.09	$ 1.42	2.60%	$ 8.18	10%		$ 8.9928	
2049	38	$ 0.09	$ 1.46	2.60%	$ 8.26	10%		$ 9.0910	
2050	39	$ 0.09	$ 1.50	2.60%	$ 8.35	10%		$ 9.1846	
2051	**40**	**$ 0.08**	**$ 1.54**	**2.60%**	**$ 8.43**	**10%**		**$ 9.2738**	**$0.4805**
2052	41	$ 0.08	$ 1.58	2.60%	$ 8.51	10%		$ 9.3588	
2053	42	$ 0.07	$ 1.62	2.60%	$ 8.58	10%		$ 9.4399	
2054	43	$ 0.07	$ 1.66	2.60%	$ 8.65	10%		$ 9.5171	
2055	44	$ 0.07	$ 1.70	2.60%	$ 8.72	10%		$ 9.5908	
2056	45	$ 0.06	$ 1.75	2.60%	$ 8.78	10%		$ 9.6610	

Cascade's Long Term Real Discount Rate: 4.170%
IRP Discount Rate = 7.631%
Revised Discount Rate= 7.631%
Years 21-45 Escalation = 2.60% (EIA Inflation Rate)

Conservation Credit % attempts to recognize non-quantifiable benefits associated with conservation, including benefits of price certainty & hedge against future carbon costs
Carbon estimated at $30/ton, applies to Natural Gas 2017

2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
11	12	13	14	15	16	17	18	19	20	21	22	23	24
$ 0.31	$ 0.29	$ 0.28	$ 0.26	$ 0.26	$ 0.25	$ 0.24	$ 0.22	$ 0.21	$ 0.21	$ 0.19	$ 0.18	$ 0.18	$ 0.17
$ 0.69	$ 0.70	$ 0.73	$ 0.72	$ 0.77	$ 0.82	$ 0.83	$ 0.83	$ 0.87	$ 0.92	$ 0.94	$ 0.97	$ 0.99	$ 1.02
$0.3091	$0.2883	$0.2807	$0.2558	$0.2565	$0.2518	$0.2368	$0.2217	$0.2140	$0.2113	$0.2014	$0.1920	$0.1830	$0.1744
9.46%	0.39%	4.81%	-1.92%	7.90%	5.67%	1.21%	0.79%	3.88%	6.26%	2.60%	2.60%	2.60%	2.60%
$ 3.56	$ 3.85	$ 4.13	$ 4.38	$ 4.64	$ 4.89	$ 5.13	$ 5.35	$ 5.57	$ 5.78	$ 5.98	$ 6.17	$ 6.35	$ 6.53
$3.92	$4.23	$4.54	$4.82	$5.10	$5.38	$5.64	$5.89	$6.12	$6.35	$6.58	$6.79	$6.99	$7.18
$0.4511	$0.4555	$0.4596	$0.4617	$0.4646	$0.4677	$0.4699	$0.4714	$0.4728	$0.4746	$0.4761	$0.4773	$0.4783	$0.4791

	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
	25	26	27	28	29	30	31	32	33	34	35	36	37	38
	$ 0.17	$ 0.16	$ 0.15	$ 0.14	$ 0.14	$ 0.13	$ 0.12	$ 0.12	$ 0.11	$ 0.11	$ 0.10	$ 0.10	$ 0.09	$ 0.09
	$ 1.05	$ 1.07	$ 1.10	$ 1.13	$ 1.16	$ 1.19	$ 1.22	$ 1.25	$ 1.28	$ 1.32	$ 1.35	$ 1.39	$ 1.42	$ 1.46
	$0.1663	$0.1585	$0.1511	$0.1440	$0.1373	$0.1309	$0.1248	$0.1189	$0.1134	$0.1081	$0.1030	$0.0982	$0.0936	$0.0892
	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%
	$ 6.69	$ 6.85	$ 7.00	$ 7.15	$ 7.28	$ 7.42	$ 7.54	$ 7.66	$ 7.77	$ 7.88	$ 7.98	$ 8.08	$ 8.18	$ 8.26
	$7.36	$7.54	$7.70	$7.86	$8.01	$8.16	$8.29	$8.42	$8.55	$8.67	$8.78	$8.89	$8.99	$9.09
	$0.4798	$0.4804	$0.4808	$0.4811	$0.4813	$0.4815	$0.4816	$0.4816	$0.4816	$0.4815	$0.4814	$0.4813	$0.4811	$0.4809

	2050	2051	2052	2053	2054	2055	2056
	39	40	41	42	43	44	45
$	0.09	$ 0.08	$ 0.08	$ 0.07	$ 0.07	$ 0.07	$ 0.06
$	1.50	$ 1.54	$ 1.58	$ 1.62	$ 1.66	$ 1.70	$ 1.75
	$0.0851	$0.0811	$0.0773	$0.0737	$0.0702	$0.0670	$0.0638
	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%
$	8.35	$ 8.43	$ 8.51	$ 8.58	$ 8.65	$ 8.72	$ 8.78
	$9.18	$9.27	$9.36	$9.44	$9.52	$9.59	$9.66
	$0.4807	$0.4805	$0.4802	$0.4799	$0.4797	$0.4794	$0.4791

Avoided costs are the unit cost to serve the next unit of demand with a supply-side resource option.

- DSM is not included when calculating the avoided cost so that the demand is served by supply-side resources only.
- Cascade's SENDOUT® model produces a marginal cost report which shows the daily incremental cost to serve the next unit of demand.
- The computed marginal cost includes
  - price of natural gas
  - variable transportation charges
  - variable charges related to storage
- Distribution costs are not currently included Cascade's avoided cost.
- The draft 2012 IRP cost effectiveness tests uses the avoided costs from the most developed (as of September 2012) IRP for the base case portfolio resources. Non-energy benefit percentages are consistent with Cascade's most recently approved 2011 IRP.

The high and low natural gas price sensitivities that are being developed for the 2012 IRP are used to scale the base case avoided cost up or down to produce the high and low avoided cost sensitivities.

For many years, The Northwest Power and Conservation Council (NPCC) has utilized a 10% cost advantage for electric utilities acquiring conservation resources to realize the benefits of not using supply side resources. Such electric utility benefits include reduced fish and wildlife impacts, load stability, load predictability and improved air quality. As discussed in Section 7, when calculating the avoided cost figures, the company includes an incremental cost advantage for conservation resources. Historically, Cascade has included the 10% cost advantage for conservation resources which was consistent with regon's requirements for gas utilities for mandated residential weatherization programs. For this plan, the company developed a graduated scale ranging from 5% for short-term measures up to a 20% factor for longer-lived measures. The use of a graduated scale is an attempt to recognize non-quantifiable benefits associated with conservation, such as price certainty & a hedge value against future carbon costs.
At the time of this writing, specific details on the level of carbon allowances and how they may be allocated to the gas utilities under a cap and trade program are still unknown. Therefore,

Admin Adder	5.00%
Conservation Credit	10.00%
Electric: Carbon Adder	20.00%
Gas: Carbon Adder	10.00%

To develop avoided cost figures associated with the reduction of incremental natural gas usage, a demand forecast, existing and future supply-side resources and demand-side resources are required. Cascade utilizes SENDOUT® model results to produce avoided costs, using the Marginal Cost of Gas report, with a the 7.631% DSM discount rate across the planning horizon. Starting with year 21 we assume a apply a flat price forecast with the the DSM discount applied through the end of the 45 year period.

The company assumes the Expected Average Cost as the appropriate data set for the analysis of avoided costs and calculation of the cost-effectiveness limits (CELs). However, Appendix H includes tables that provide the avoided costs and CEL calculations expected minimum and expected maximum Monte-Carlo results as well as the various Carbon Cost scenarios included in the Plan. This will allow the company to further analyze its Conservation potential curves and the magnitude of the measures that could be deemed cost-effective depending the outcome of the Carbon Cost proposals.

Natural Gas Environmental Externality Cost Analysis
Updated with EIA's Estimated Emission Factors & Inflation

Emission	Emission (Lbs/Therm)	Cost ($/Lb)	Externality Adder ($/Therm)
Carbon Scneario 1			
NO2	0.008	$1.250	$0.010
$2500/Ton	11.673	$0.008	$0.088
CO2			
$15/Ton			
Carbon Scenario 2			
NO2	0.008	$1.250	$0.010
$2500/Ton	11.673	$0.010	$0.117
CO2			
$20/Ton			
Carbon Scenario 3			
NO2	0.008	$1.250	$0.010
$2500/Ton	11.673	$0.015	$0.175
CO2			
$30/Ton			

General Assumptions:
Externality Adder reflects 1st year adder
Adder will increase annually by 3% and will be adjusted by the CPI, estimated to be 3.5%/year

EIA ECONOMIC GROWTH FACTORS (EIA ANNUAL ENERGY OUTLOOK 2011, TABLE E-1)

Case name	Description	Integration mode	Reference in text	Reference in Appendix E
Reference	Baseline economic growth (2.7 percent per year from 2009 through 2035), world oil price, and technology assumptions. Complete projection tables in Appendix A. World light, sweet crude oil prices rise to about $125 per barrel (2009 dollars) in 2035. Assumes RFS target to be met as soon as possible.	Fully integrated	--	--
Low Economic Growth	Real GDP grows at an average annual rate of 2.1 percent from 2009 to 2035. Other energy market assumptions are the same as in the Reference case. Partial projection tables in Appendix B.	Fully integrated	p. 58	p. 213
High Economic Growth	Real GDP grows at an average annual rate of 3.2 percent from 2009 to 2035. Other energy market assumptions are the same as in the Reference case. Partial projection tables in Appendix B.	Fully integrated	p. 58	p. 213

FACTORS USED IN PRICE FORECAST

Low Case	2.1	-0.6000	-0.0600	0.9400
Reference Case	2.7			
High Case	3.2	0.5000	0.0500	1.0500

Important to note about EIAs forecast methodology: The variation among published projections of natural gas consumption, production, imports, and prices (Table 16) can be significant. It results from differences in the assumptions that underlie the projections. For example, the natural gas projection in the *AEO2011 Reference case assumes, for the most part, that current laws and regulations will continue through the projection period, whereas other natural gas projections may include anticipated policy developments over the next 25 years. In particular, AEO2011 does not assume the implementation of regulations limiting CO2 emissions or other types of emissions beyond those already in effect.*

Year	Financial Forecast Center Jun 2012	NWPPC	TEXAS Comptroller	WoodMac April 2011	EIA	NYMEX HH	WAVG RES PLAN HH PRICE	ORIg WAVG RES PLAN HH PRICE	LO BASE CASE	BASE CASE	HI BASE CASE
2011	0.005	0.08	0.005	0.08	0.08	0.75	3.810192	3.810192	3.581581	3.810192	4.000702
2012	0	0.15	0	0	0.35	0.5	2.501292	4.183583	2.351214	2.501292	2.626356
2013	0	0.15	0	0	0.4	0.45	3.4944	4.707848	3.284736	3.4944	3.66912
2014	0	0.15	0	0	0.45	0.4	3.851608	4.979343	3.620512	3.851608	4.044188
2015	0	0.15	0	0	0.5	0.35	4.136053	5.059543	3.88789	4.136053	4.342856
2016	0	0.15	0	0	0.55	0.3	4.246546	5.219655	3.991754	4.246546	4.458874
2017	0	0.15	0	0	0.6	0.25	4.403922	5.355059	4.139686	4.403922	4.624118
2018	0	0.15	0	0	0.65	0.2	4.587599	5.492729	4.312343	4.587599	4.816979
2019	0	0.15	0	0	0.7	0.15	4.748719	5.658523	4.463796	4.748719	4.986155
2020	0	0.15	0	0	0.75	0.1	4.845769	5.844025	4.555023	4.845769	5.088057
2021	0	0.15	0	0	0.8	0.05	5.017672	6.065605	4.716611	5.017672	5.268555
2022	0	0.15	0	0	0.85	0	5.248481	6.093523	4.933572	5.248481	5.510905
2023	0	0.15	0	0	0.85	0	5.439439	6.241047	5.113073	5.439439	5.711411
2024	0	0.15	0	0	0.85	0	5.592843	6.335575	5.257272	5.592843	5.872485
2025	0	0.5	0	0	0.5	0	5.832857	6.404211	5.482886	5.832857	6.1245
2026	0	0.5	0	0	0.5	0	6.001937	6.540815	5.641821	6.001937	6.302034
2027	0	0.5	0	0	0.5	0	6.154418	6.756594	5.785153	6.154418	6.462139
2028	0	0.5	0	0	0.5	0	6.208714	6.896811	5.836191	6.208714	6.51915
2029	0	0.5	0	0	0.5	0	6.239631	6.942189	5.865253	6.239631	6.551613
2030	0	0.5	0	0	0.5	0	6.324187	7.019357	5.944736	6.324187	6.640396
2031	0	0	0	0	1	0	6.370103	7.278991	5.987897	6.370103	6.688608
2032	0	0	0	0	1	0	6.630243	7.555593	6.232429	6.630243	6.961755
2033	0	0	0	0	1	0	6.793119	7.659265	6.385532	6.793119	7.132775
2034	0	0	0	0	1	0	6.95751	7.873841	6.540059	6.95751	7.305386
2035	0	0	0	0	1	0	7.198939	8.068624	6.767002	7.198939	7.558886

Analysi type: Full Optimization; Risk Analysis disabled; Portfoli Options DSM enabled;
Process control: DSM in Optimization disabled; Present worth 7.631 year 2033; Report Parms: Nominal disabled

Data Item	Area	Scenario	2012	2013	2014	2015	2016	2017	2018	2019
Peak Day M	Zone 10	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone 11	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone 20	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone 24	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone 26	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone 30-S	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone 30-W	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone GTN	2925-2012 IRP Test 2	-2.761451	-3.473959	-3.958999	-4.377638	-4.397483	-4.408997	-4.474727	-4.685871
Peak Day M	Zone ME-O	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone ME-W	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787

Analysi type: Full Optimization; Risk Analysis disabled; Portfoli Options DSM disabled;
Process control: DSM in Optimization disabled; Present worth 7.631 year 2033; Report Parms: Nominal disabled

Data Item	Area	Scenario	2012	2013	2014	2015	2016	2017	2018	2019
Peak Day M	Zone 10	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone 11	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone 20	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone 24	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone 26	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone 30-S	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone 30-W	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone GTN	2925-2012 IRP Test 2	-2.761451	-3.473959	-3.958999	-4.377638	-4.397483	-4.408997	-4.474727	-4.685871
Peak Day M	Zone ME-O	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone ME-W	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787

Analysi type: Full Optimization; Risk Analysis disabled; Portfoli Options DSM disabled;
Process control: DSM in Optimization enabled; Present worth 7.631 year 2033; Report Parms: Nominal disabled

Data Item	Area	Scenario	2012	2013	2014	2015	2016	2017	2018	2019
Peak Day M	Zone 10	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone 11	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone 20	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone 24	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone 26	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone 30-S	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone 30-W	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone GTN	2925-2012 IRP Test 2	-2.761451	-3.473959	-3.958999	-4.377638	-4.397483	-4.408997	-4.474727	-4.685871
Peak Day M	Zone ME-O	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone ME-W	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787

Analysi type: Full Optimization; Risk Analysis disabled; Portfoli Options DSM enabled;
Process control: DSM in Optimization enabled; Present worth 7.631 year 2033; Report Parms: Nominal enabled

Data Item	Area	Scenario	2012	2013	2014	2015	2016	2017	2018	2019
Peak Day M	Zone 10	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone 11	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone 20	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone 24	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone 26	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone 30-S	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone 30-W	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone GTN	2925-2012 IRP Test 2	-2.761451	-3.473959	-3.958999	-4.377638	-4.397483	-4.408997	-4.474727	-4.685871
Peak Day M	Zone ME-O	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787
Peak Day M	Zone ME-W	2925-2012 IRP Test 2	-2.752932	-3.504476	-3.966665	-4.349259	-4.319268	-4.326307	-4.383185	-4.621787

Analysi type: Full Optimization; Risk Analysis d
Process control: DSM in Optimization disablec

Data Item	Area	Scenario	2020	2021	2022	2023	2024	2025	2026	2027
Peak Day M	Zone 10	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone 11	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone 20	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone 24	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone 26	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone 30-S	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-46.46507	-46.74859	-46.94223
Peak Day M	Zone 30-W	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone GTN	2925-2012 IRP Test 2	-4.769458	-4.831585	-5.202882	-5.330532	-5.441484	-46.56095	-46.79558	-47.00141
Peak Day M	Zone ME-O	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone ME-W	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096

Analysi type: Full Optimization; Risk Analysis d
Process control: DSM in Optimization disablec

Data Item	Area	Scenario	2020	2021	2022	2023	2024	2025	2026	2027
Peak Day M	Zone 10	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone 11	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone 20	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone 24	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone 26	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone 30-S	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-46.46507	-46.74859	-46.94223
Peak Day M	Zone 30-W	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone GTN	2925-2012 IRP Test 2	-4.769458	-4.831585	-5.202882	-5.330532	-5.441484	-46.56095	-46.79558	-47.00141
Peak Day M	Zone ME-O	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone ME-W	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096

Analysi type: Full Optimization; Risk Analysis d
Process control: DSM in Optimization enablec

Data Item	Area	Scenario	2020	2021	2022	2023	2024	2025	2026	2027
Peak Day M	Zone 10	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone 11	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone 20	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone 24	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone 26	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone 30-S	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-46.46507	-46.74859	-46.94223
Peak Day M	Zone 30-W	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone GTN	2925-2012 IRP Test 2	-4.769458	-4.831585	-5.202882	-5.330532	-5.441484	-46.56095	-46.79558	-47.00141
Peak Day M	Zone ME-O	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone ME-W	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096

Analysi type: Full Optimization; Risk Analysis d
Process control: DSM in Optimization enablec

Data Item	Area	Scenario	2020	2021	2022	2023	2024	2025	2026	2027
Peak Day M	Zone 10	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone 11	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone 20	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone 24	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone 26	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone 30-S	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-46.46507	-46.74859	-46.94223
Peak Day M	Zone 30-W	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone GTN	2925-2012 IRP Test 2	-4.769458	-4.831585	-5.202882	-5.330532	-5.441484	-46.56095	-46.79558	-47.00141
Peak Day M	Zone ME-O	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096
Peak Day M	Zone ME-W	2925-2012 IRP Test 2	-4.702551	-4.751847	-5.101461	-5.213735	-5.28998	-5.300951	-5.625929	-5.841096

Analysi type: Full Optimization; Risk Analysis d
Process control: DSM in Optimization disablec

Data Item	Area	Scenario	2028	2029	2030	2031	2032	2033
Peak Day M	Zone 10	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone 11	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone 20	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone 24	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone 26	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone 30-S	2925-2012 IRP Test 2	-46.98623	-46.90358	-47.00062	-46.73798	-46.78894	-6.023652
Peak Day M	Zone 30-W	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone GTN	2925-2012 IRP Test 2	-47.06587	-47.06816	-47.22228	-46.96286	-47.14978	-6.68368
Peak Day M	Zone ME-O	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone ME-W	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652

Analysi type: Full Optimization; Risk Analysis d
Process control: DSM in Optimization disablec

Data Item	Area	Scenario	2028	2029	2030	2031	2032	2033
Peak Day M	Zone 10	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone 11	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone 20	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone 24	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone 26	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone 30-S	2925-2012 IRP Test 2	-46.98623	-46.90358	-47.00062	-46.73798	-46.78894	-6.023652
Peak Day M	Zone 30-W	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone GTN	2925-2012 IRP Test 2	-47.06587	-47.06816	-47.22228	-46.96286	-47.14978	-6.68368
Peak Day M	Zone ME-O	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone ME-W	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652

Analysi type: Full Optimization; Risk Analysis d
Process control: DSM in Optimization enablec

Data Item	Area	Scenario	2028	2029	2030	2031	2032	2033
Peak Day M	Zone 10	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone 11	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone 20	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone 24	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone 26	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone 30-S	2925-2012 IRP Test 2	-46.98623	-46.90358	-47.00062	-46.73798	-46.78894	-6.023652
Peak Day M	Zone 30-W	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone GTN	2925-2012 IRP Test 2	-47.06587	-47.06816	-47.22228	-46.96286	-47.14978	-6.68368
Peak Day M	Zone ME-O	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone ME-W	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652

Analysi type: Full Optimization; Risk Analysis d
Process control: DSM in Optimization enablec

Data Item	Area	Scenario	2028	2029	2030	2031	2032	2033
Peak Day M	Zone 10	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone 11	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone 20	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone 24	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone 26	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone 30-S	2925-2012 IRP Test 2	-46.98623	-46.90358	-47.00062	-46.73798	-46.78894	-6.023652
Peak Day M	Zone 30-W	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone GTN	2925-2012 IRP Test 2	-47.06587	-47.06816	-47.22228	-46.96286	-47.14978	-6.68368
Peak Day M	Zone ME-O	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652
Peak Day M	Zone ME-W	2925-2012 IRP Test 2	-5.889393	-5.802106	-5.918285	-6.060324	-6.137336	-6.023652

Analysi type: Full Optimization; Risk Analysis disabled; Portfoli Options DSM enabled;
Process control: DSM in Optimization disabled; Present worth 7.631 year 2033; Report Parms: Nominal disabled

Data Item	Area	Scenario	2012	2013	2014	2015	2016	2017	2018	2019

Analysi type: Full Optimization; Risk Analysis disabled; Portfoli Options DSM enabled;
Process control: DSM in Optimization enabled; Present worth 7.631 year 2013; Report Parms: Nominal enabled

Data Item	Area	Scenario	2012	2013	2014	2015	2016	2017	2018	2019
Peak Day M	Zone 10	2925-2012 IRP Test 2	-2.736498	-3.437829	-3.593857	-3.64752	-3.353427	-3.099149	-2.902331	-2.820512
Peak Day M	Zone 11	2925-2012 IRP Test 2	-2.736498	-3.437829	-3.593857	-3.64752	-3.353427	-3.099149	-2.902331	-2.820512
Peak Day M	Zone 20	2925-2012 IRP Test 2	-2.736498	-3.437829	-3.593857	-3.64752	-3.353427	-3.099149	-2.902331	-2.820512
Peak Day M	Zone 24	2925-2012 IRP Test 2	-2.736498	-3.437829	-3.593857	-3.64752	-3.353427	-3.099149	-2.902331	-2.820512
Peak Day M	Zone 26	2925-2012 IRP Test 2	-2.736498	-3.437829	-3.593857	-3.64752	-3.353427	-3.099149	-2.902331	-2.820512
Peak Day M	Zone 30-S	2925-2012 IRP Test 2	-2.736498	-3.437829	-3.593857	-3.64752	-3.353427	-3.099149	-2.902331	-2.820512
Peak Day M	Zone 30-W	2925-2012 IRP Test 2	-2.736498	-3.437829	-3.593857	-3.64752	-3.353427	-3.099149	-2.902331	-2.820512
Peak Day M	Zone GTN	2925-2012 IRP Test 2	-2.745291	-3.401301	-3.583308	-3.672247	-3.408815	-3.156977	-2.960214	-2.858702
Peak Day M	Zone ME-O	2925-2012 IRP Test 2	-2.736498	-3.437829	-3.593857	-3.64752	-3.353427	-3.099149	-2.902331	-2.820512
Peak Day M	Zone ME-W	2925-2012 IRP Test 2	-2.736498	-3.437829	-3.593857	-3.64752	-3.353427	-3.099149	-2.902331	-2.820512
			0.27365	0.343783	0.359386	0.364752	0.335343	0.309915	0.290233	0.282051

Analysi type: Full Optimization; Risk Analysis disabled; Portfoli Options DSM enabled;
Process control: DSM in Optimization enabled; Present worth 7.631 year 2013; Report Parms: Nominal disabled

Data Item	Area	Scenario	2012	2013	2014	2015	2016	2017	2018	2019
Peak Day M	Zone 10	2925-2012 IRP Test 2	-2.736498	-3.437829	-3.593857	-3.64752	-3.353427	-3.099149	-2.902331	-2.820512
Peak Day M	Zone 11	2925-2012 IRP Test 2	-2.736498	-3.437829	-3.593857	-3.64752	-3.353427	-3.099149	-2.902331	-2.820512
Peak Day M	Zone 20	2925-2012 IRP Test 2	-2.736498	-3.437829	-3.593857	-3.64752	-3.353427	-3.099149	-2.902331	-2.820512
Peak Day M	Zone 24	2925-2012 IRP Test 2	-2.736498	-3.437829	-3.593857	-3.64752	-3.353427	-3.099149	-2.902331	-2.820512
Peak Day M	Zone 26	2925-2012 IRP Test 2	-2.736498	-3.437829	-3.593857	-3.64752	-3.353427	-3.099149	-2.902331	-2.820512
Peak Day M	Zone 30-S	2925-2012 IRP Test 2	-2.736498	-3.437829	-3.593857	-3.64752	-3.353427	-3.099149	-2.902331	-2.820512
Peak Day M	Zone 30-W	2925-2012 IRP Test 2	-2.736498	-3.437829	-3.593857	-3.64752	-3.353427	-3.099149	-2.902331	-2.820512
Peak Day M	Zone GTN	2925-2012 IRP Test 2	-2.745291	-3.401301	-3.583308	-3.672247	-3.408815	-3.156977	-2.960214	-2.858702
Peak Day M	Zone ME-O	2925-2012 IRP Test 2	-2.736498	-3.437829	-3.593857	-3.64752	-3.353427	-3.099149	-2.902331	-2.820512
Peak Day M	Zone ME-W	2925-2012 IRP Test 2	-2.736498	-3.437829	-3.593857	-3.64752	-3.353427	-3.099149	-2.902331	-2.820512
AVOIDED COST		Base	0.27365	0.343783	0.359386	0.364752	0.335343	0.309915	0.290233	0.282051
	$15	Carbon 1	0.27365	0.343783	0.359386	0.364752	0.335343	0.309915	0.290233	0.317308
	$20	Carbon 2	0.27365	0.343783	0.359386	0.364752	0.335343	0.309915	0.290233	0.323184
	$30	Carbon 3	0.27365	0.343783	0.359386	0.364752	0.335343	0.309915	0.290233	0.346688

$4.99 over planning horizon

Analysi type: Full Optimization; Risk Analysis d
Process control: DSM in Optimization disablec

Data Item	Area	Scenario	2020	2021	2022	2023	2024	2025	2026	2027

Analysi type: Full Optimization; Risk Analysis d
Process control: DSM in Optimization enabled

Data Item	Area	Scenario	2020	2021	2022	2023	2024	2025	2026	2027
Peak Day M	Zone 10	2925-2012 IRP Test 2	-2.652467	-2.476315	-2.459876	-2.318608	-2.183391	-2.022784	-1.97262	-1.888196
Peak Day M	Zone 11	2925-2012 IRP Test 2	-2.652467	-2.476315	-2.459876	-2.318608	-2.183391	-2.022784	-1.97262	-1.888196
Peak Day M	Zone 20	2925-2012 IRP Test 2	-2.652467	-2.476315	-2.459876	-2.318608	-2.183391	-2.022784	-1.97262	-1.888196
Peak Day M	Zone 24	2925-2012 IRP Test 2	-2.652467	-2.476315	-2.459876	-2.318608	-2.183391	-2.022784	-1.97262	-1.888196
Peak Day M	Zone 26	2925-2012 IRP Test 2	-2.652467	-2.476315	-2.459876	-2.318608	-2.183391	-2.022784	-1.97262	-1.888196
Peak Day M	Zone 30-S	2925-2012 IRP Test 2	-2.652467	-2.476315	-2.459876	-2.318608	-2.183391	-43.49308	-43.45236	-43.37832
Peak Day M	Zone 30-W	2925-2012 IRP Test 2	-2.652467	-2.476315	-2.459876	-2.318608	-2.183391	-2.022784	-1.97262	-1.888196
Peak Day M	Zone GTN	2925-2012 IRP Test 2	-2.690193	-2.519493	-2.505469	-2.370494	-2.236767	-2.061586	-1.991344	-11.74877
Peak Day M	Zone ME-O	2925-2012 IRP Test 2	-2.652467	-2.476315	-2.459876	-2.318608	-2.183391	-2.022784	-1.97262	-1.888196
Peak Day M	Zone ME-W	2925-2012 IRP Test 2	-2.652467	-2.476315	-2.459876	-2.318608	-2.183391	-2.022784	-1.97262	-1.888196
			0.265247	0.247632	0.245988	0.231861	0.218339	0.202278	0.197262	0.18882

Analysi type: Full Optimization; Risk Analysis d
Process control: DSM in Optimization enabled

Data Item	Area	Scenario	2020	2021	2022	2023	2024	2025	2026	2027
Peak Day M	Zone 10	2925-2012 IRP Test 2	-2.652467	-2.476315	-2.459876	-2.318608	-2.183391	-2.022784	-1.97262	-1.888196
Peak Day M	Zone 11	2925-2012 IRP Test 2	-2.652467	-2.476315	-2.459876	-2.318608	-2.183391	-2.022784	-1.97262	-1.888196
Peak Day M	Zone 20	2925-2012 IRP Test 2	-2.652467	-2.476315	-2.459876	-2.318608	-2.183391	-2.022784	-1.97262	-1.888196
Peak Day M	Zone 24	2925-2012 IRP Test 2	-2.652467	-2.476315	-2.459876	-2.318608	-2.183391	-2.022784	-1.97262	-1.888196
Peak Day M	Zone 26	2925-2012 IRP Test 2	-2.652467	-2.476315	-2.459876	-2.318608	-2.183391	-2.022784	-1.97262	-1.888196
Peak Day M	Zone 30-S	2925-2012 IRP Test 2	-2.652467	-2.476315	-2.459876	-2.318608	-2.183391	-43.49308	-43.45236	-43.37832
Peak Day M	Zone 30-W	2925-2012 IRP Test 2	-2.652467	-2.476315	-2.459876	-2.318608	-2.183391	-2.022784	-1.97262	-1.888196
Peak Day M	Zone GTN	2925-2012 IRP Test 2	-2.690193	-2.519493	-2.505469	-2.370494	-2.236767	-2.061586	-1.991344	-11.74877
Peak Day M	Zone ME-O	2925-2012 IRP Test 2	-2.652467	-2.476315	-2.459876	-2.318608	-2.183391	-2.022784	-1.97262	-1.888196
Peak Day M	Zone ME-W	2925-2012 IRP Test 2	-2.652467	-2.476315	-2.459876	-2.318608	-2.183391	-2.022784	-1.97262	-1.888196

AVOIDED COST		Base	0.265247	0.247632	0.245988	0.231861	0.218339	0.202278	0.197262	0.18882
	$15	Carbon 1	0.294078	0.275771	0.283832	0.263193	0.24953	0.232025	0.230139	0.223786
	$20	Carbon 2	0.30561	0.281399	0.290139	0.26946	0.262007	0.237975	0.236714	0.23078
	$30	Carbon 3	0.322909	0.303911	0.309061	0.288259	0.280722	0.255823	0.256441	0.251759

$4.99 over planning horizon

Analysi type: Full Optimization; Risk Analysis d
Process control: DSM in Optimization disablec

Data Item	Area	Scenario	2028	2029	2030	2031	2032	2033

Analysi type: Full Optimization; Risk Analysis d
Process control: DSM in Optimization enabled

Data Item	Area	Scenario	2028	2029	2030	2031	2032	2033
Peak Day M	Zone 10	2925-2012 IRP Test 2	-1.758818	-1.612337	-1.538003	-1.4992	-1.331955	-1.247979
Peak Day M	Zone 11	2925-2012 IRP Test 2	-1.758818	-1.612337	-1.538003	-1.4992	-1.331955	-1.247979
Peak Day M	Zone 20	2925-2012 IRP Test 2	-1.758818	-1.612337	-1.538003	-1.4992	-1.331955	-1.247979
Peak Day M	Zone 24	2925-2012 IRP Test 2	-1.758818	-1.612337	-1.538003	-1.4992	-1.331955	-1.247979
Peak Day M	Zone 26	2925-2012 IRP Test 2	-1.758818	-1.612337	-1.538003	-1.4992	-1.331955	-1.247979
Peak Day M	Zone 30-S	2925-2012 IRP Test 2	-43.26118	-43.1174	-43.03195	-42.86492	-42.78556	-1.247979
Peak Day M	Zone 30-W	2925-2012 IRP Test 2	-1.758818	-1.612337	-1.538003	-1.4992	-1.331955	-1.247979
Peak Day M	Zone GTN	2925-2012 IRP Test 2	-43.2876	-43.15223	-43.0791	-42.90689	-42.85002	-1.385166
Peak Day M	Zone ME-O	2925-2012 IRP Test 2	-1.758818	-1.612337	-1.538003	-1.4992	-1.331955	-1.247979
Peak Day M	Zone ME-W	2925-2012 IRP Test 2	-1.758818	-1.612337	-1.538003	-1.4992	-1.331955	-1.247979
			0.175882	0.161234	0.1538	0.14992	0.133195	0.124798

Analysi type: Full Optimization; Risk Analysis d
Process control: DSM in Optimization enabled

Data Item	Area	Scenario	2028	2029	2030	2031	2032	2033
Peak Day M	Zone 10	2925-2012 IRP Test 2	-1.758818	-1.612337	-1.538003	-1.4992	-1.331955	-1.247979
Peak Day M	Zone 11	2925-2012 IRP Test 2	-1.758818	-1.612337	-1.538003	-1.4992	-1.331955	-1.247979
Peak Day M	Zone 20	2925-2012 IRP Test 2	-1.758818	-1.612337	-1.538003	-1.4992	-1.331955	-1.247979
Peak Day M	Zone 24	2925-2012 IRP Test 2	-1.758818	-1.612337	-1.538003	-1.4992	-1.331955	-1.247979
Peak Day M	Zone 26	2925-2012 IRP Test 2	-1.758818	-1.612337	-1.538003	-1.4992	-1.331955	-1.247979
Peak Day M	Zone 30-S	2925-2012 IRP Test 2	-43.26118	-43.1174	-43.03195	-42.86492	-42.78556	-1.247979
Peak Day M	Zone 30-W	2925-2012 IRP Test 2	-1.758818	-1.612337	-1.538003	-1.4992	-1.331955	-1.247979
Peak Day M	Zone GTN	2925-2012 IRP Test 2	-43.2876	-43.15223	-43.0791	-42.90689	-42.85002	-1.385166
Peak Day M	Zone ME-O	2925-2012 IRP Test 2	-1.758818	-1.612337	-1.538003	-1.4992	-1.331955	-1.247979
Peak Day M	Zone ME-W	2925-2012 IRP Test 2	-1.758818	-1.612337	-1.538003	-1.4992	-1.331955	-1.247979
AVOIDED COST		Base	0.175882	0.161234	0.1538	0.14992	0.133195	0.124798
	$15	Carbon 1	0.202941	0.194824	0.187235	0.177178	0.166494	0.155997
	$20	Carbon 2	0.21647	0.201542	0.193922	0.190807	0.173154	0.162237
	$30	Carbon 3	0.236764	0.221696	0.213983	0.211251	0.193133	0.180957

$4.99 over planning horizon

PERIOD	NYMEX CURRENT MARKET	CASCADE NYMEX LO PROJECTED PRICE	NYMEX CASCADE PROJECTED PRICE	CASCADE NYMEX HI PROJECTED PRICE	CASCADE SUMAS LO FORECAST PRICE	SUMAS CASCADE FORECAST PRICE	CASCADE SUMAS HI FORECAST PRICE	CASCADE ROCKIES LO FORECAST PRICE
Jan-12	3.084	2.906516749	3.142180269	3.299289282	2.850753704	3.000793373	3.150833041	2.886444478
Feb-12	2.678	2.569279364	2.777599313	2.916479278	2.503803932	2.635583087	2.767362241	2.563893936
Mar-12	2.43	2.367408402	2.559360434	2.687328456	2.281349945	2.401420994	2.521492044	2.35668016
Apr-12	2.335	2.292730229	2.478627274	2.602558638	2.194237722	2.309723918	2.425210113	2.276638605
May-12	1.981	1.894971594	2.04861794	2.151048837	1.677918332	1.766229823	1.854541314	1.865552743
Jun-12	2.737	2.557358083	2.764711441	2.902947013	2.352106317	2.475901386	2.599696456	2.543055205
Jul-12	2.774	2.452826854	2.651704707	2.784289942	2.165795612	2.279784855	2.393774097	2.34135289
Aug-12	2.737	2.433094586	2.630372526	2.761891152	2.244503254	2.362635004	2.480766755	2.319234961
Sep-12	2.728	2.42763872	2.624474292	2.755698007	2.272353551	2.391951106	2.511548662	2.321503508
Oct-12	2.773	2.483101399	2.684433945	2.818655643	2.443401557	2.572001638	2.70060172	2.382251964
Nov-12	2.961	2.58259821	2.791998065	2.931597968	2.907043966	3.06004628	3.213048594	2.488737514
Dec-12	3.243	2.811630722	3.03960078	3.191580819	3.159073237	3.325340249	3.491607262	2.725669747
Jan-13	3.393	3.090018036	3.340560039	3.507588041	3.441342662	3.62246596	3.803589258	3.012243272
Feb-13	3.426	3.08477841	3.334895579	3.501640358	3.432313498	3.612961577	3.793609655	3.062059955
Mar-13	3.419	3.071509457	3.320550765	3.486578303	3.396365685	3.575121774	3.753877862	3.043265132
Apr-13	3.416	3.090399496	3.340972428	3.508021049	2.983713611	3.14075117	3.297788728	3.056119793
May-13	3.461	3.127566897	3.381153402	3.550211072	2.999378135	3.157240142	3.315102149	3.083337143
Jun-13	3.505	3.166393504	3.423128113	3.594284518	3.017466988	3.17628104	3.335095092	3.112691003
Jul-13	3.548	3.207832035	3.467926525	3.641322851	3.050424545	3.210973206	3.371521866	3.091597337
Aug-13	3.569	3.224064452	3.485475083	3.659748837	3.070428705	3.232030215	3.393631726	3.107416924
Sep-13	3.571	3.224750726	3.486217001	3.660527851	3.089091943	3.251675729	3.414259516	3.125322888
Oct-13	3.605	3.258953917	3.523193424	3.699353095	3.133045428	3.297942556	3.462839684	3.171301927
Nov-13	3.713	3.346765781	3.618125169	3.799031428	3.658439123	3.850988551	4.043537978	3.275212496
Dec-13	3.918	3.494475541	3.777811396	3.966701966	3.854547539	4.057418462	4.260289385	3.429517541
Jan-14	4.02	3.671672596	3.96937578	4.167844569	4.032425394	4.24465831	4.456891225	3.61082021
Feb-14	4.01	3.665339085	3.962528741	4.160655178	4.021528284	4.233187668	4.444847051	3.655343862
Mar-14	3.957	3.568244152	3.857561246	4.050439308	3.871083014	4.074824225	4.278565436	3.539499656
Apr-14	3.842	3.550868608	3.838776874	4.030715717	3.431394865	3.611994595	3.792594325	3.516285822
May-14	3.853	3.57246939	3.86212907	4.055235524	3.426501286	3.606843458	3.787185631	3.519994088
Jun-14	3.875	3.592398003	3.883673517	4.077857193	3.410677088	3.590186409	3.769695729	3.521311586
Jul-14	3.914	3.622329072	3.916031429	4.111833	3.441336573	3.62245955	3.803582528	3.497035715
Aug-14	3.933	3.633137675	3.927716405	4.124102226	3.447615688	3.629069145	3.810522603	3.506906675
Sep-14	3.936	3.626235575	3.920254676	4.116267409	3.465585388	3.647984619	3.83038385	3.535362871
Oct-14	3.973	3.673047236	3.970861877	4.16940497	3.510957307	3.695744534	3.880531761	3.5904588
Nov-14	4.058	3.7308408	4.033341405	4.235008476	3.864017778	4.067387135	4.270756492	3.667942827
Dec-14	4.243	3.841781826	4.15327765	4.360941532	4.055821424	4.26928571	4.482749995	3.792594635
Jan-15	4.345	4.183848213	4.523079149	4.749233106	4.336306236	4.56453288	4.792759524	4.155150825
Feb-15	4.315	4.170422365	4.508564719	4.733992955	4.313730597	4.540769049	4.767807502	4.135774111
Mar-15	4.235	4.088543267	4.420046775	4.641049114	4.109010613	4.32527433	4.541538046	4.014018586
Apr-15	4.035	4.036094632	4.363345548	4.581512825	3.8087872	4.009249684	4.209712169	3.937729424
May-15	4.05	4.084347531	4.415510845	4.636286387	3.79143168	3.990980716	4.190529752	3.943880555
Jun-15	4.072	4.09201717	4.423802346	4.644992463	3.729173628	3.925445924	4.12171822	3.906488955
Jul-15	4.109	4.112218128	4.445641219	4.66792328	3.734317496	3.930860522	4.127403549	3.909058904
Aug-15	4.128	4.110570917	4.44386045	4.666053473	3.902547666	4.107944912	4.313342157	3.903989006
Sep-15	4.131	4.073631581	4.403926033	4.624122335	3.92769752	4.134418442	4.341139364	3.937596373
Oct-15	4.167	4.133366487	4.468504311	4.691929526	3.998999172	4.209472813	4.419946453	4.022677055
Nov-15	4.255	4.153232526	4.489981109	4.714480164	4.142052511	4.360055274	4.578058038	4.117284177
Dec-15	4.441	4.265785288	4.611659771	4.84224276	4.368628552	4.59855637	4.828484189	4.19892872
Jan-16	4.541	4.293002898	4.641084214	4.873138424	4.241712543	4.464960572	4.6882086	4.190102357
Feb-16	4.511	4.279920239	4.626940799	4.858287839	4.223565782	4.445858718	4.668151654	4.177083775
Mar-16	4.431	4.165039626	4.502745542	4.727882819	3.963020221	4.171600232	4.380180244	4.002280439
Apr-16	4.221	4.147973796	4.484295996	4.708510795	3.92028804	4.12661899	4.332949939	3.988178015
May-16	4.236	4.193754584	4.53378874	4.760478177	3.914714317	4.120751913	4.326789508	3.939085196

PERIOD	NYMEX CURRENT MARKET	CASCADE NYMEX LO PROJECTED PRICE	NYMEX CASCADE PROJECTED PRICE	CASCADE NYMEX HI PROJECTED PRICE	CASCADE SUMAS LO FORECAST PRICE	SUMAS CASCADE FORECAST PRICE	CASCADE SUMAS HI FORECAST PRICE	CASCADE ROCKIES LO FORECAST PRICE
Jun-16	4.258	4.217376594	4.559326047	4.78729235	3.874482018	4.078402124	4.28232223	3.856231457
Jul-16	4.295	4.235770212	4.57921104	4.808171592	3.856743742	4.059730254	4.262716767	3.800518404
Aug-16	4.314	4.213708975	4.555361054	4.783129107	4.00262199	4.213286305	4.42395062	3.77545823
Sep-16	4.317	4.16908621	4.507120227	4.732476238	4.019786441	4.231354148	4.442921855	3.884500655
Oct-16	4.353	4.222743568	4.565128182	4.793384591	3.836825209	4.038763378	4.240701547	4.023397213
Nov-16	4.444	4.277729092	4.624571992	4.855800591	3.979457441	4.18890257	4.398347698	4.178031555
Dec-16	4.635	4.357140575	4.710422243	4.945943355	4.280617789	4.505913462	4.731209135	4.23859568
Jan-17	4.737	4.410933645	4.768576913	5.007005759	4.339748254	4.568156057	4.796563859	4.288162055
Feb-17	4.707	4.403877193	4.760948317	4.998995733	4.287370524	4.513021605	4.738672685	4.226180372
Mar-17	4.627	4.198408258	4.538819739	4.765760726	3.861986016	4.065248438	4.26851086	3.990885376
Apr-17	4.42	4.280154097	4.627193619	4.8585533	3.844403212	4.046740223	4.249077234	4.023895352
May-17	4.437	4.322044633	4.672480684	4.906104718	3.770459547	3.968904787	4.167350026	3.961079064
Jun-17	4.461	4.3311903	4.682367891	4.916486286	3.684285516	3.87819528	4.072105044	3.903935689
Jul-17	4.5	4.39010983	4.746064681	4.983367915	3.662094567	3.854836386	4.047578206	3.833922932
Aug-17	4.519	4.338516925	4.690288567	4.924802996	3.595977191	3.785239148	3.974501105	3.774374894
Sep-17	4.523	4.255070031	4.600075709	4.830079494	3.702946379	3.897838294	4.092730208	3.919426944
Oct-17	4.56	4.348551171	4.701136401	4.936193221	3.869434035	4.073088458	4.276742881	4.086620366
Nov-17	4.664	4.411620504	4.769319464	5.007785437	4.016894536	4.228310038	4.43972554	4.253469973
Dec-17	4.871	4.49242463	4.856675275	5.099509039	4.337167384	4.565439351	4.793711319	4.307027795
Jan-18	4.984	4.562382393	4.93230529	5.178920554	4.407428602	4.639398529	4.871368455	4.376726393
Feb-18	4.954	4.550263237	4.919203499	5.165163674	4.386503188	4.617371777	4.848240366	4.355363838
Mar-18	4.876	4.331275355	4.682459843	4.916582835	3.951482093	4.159454834	4.367427576	4.145011198
Apr-18	4.669	4.426356893	4.785250695	5.02451323	3.918445617	4.124679597	4.330913577	4.176983625
May-18	4.689	4.482922826	4.846403055	5.088723208	3.839195989	4.041258936	4.243321883	4.155304717
Jun-18	4.719	4.504061916	4.869256126	5.112718932	3.73483573	3.931406032	4.127976333	4.072195373
Jul-18	4.764	4.530178029	4.897489762	5.14236425	3.724023288	3.920024513	4.116025739	4.023657029
Aug-18	4.786	4.496724041	4.861323288	5.104389452	3.707808505	3.902956321	4.098104138	3.980039655
Sep-18	4.792	4.451321071	4.812238996	5.052850946	3.78929166	3.988728063	4.188164466	4.080299465
Oct-18	4.832	4.480277957	4.843543737	5.085720924	3.921024686	4.127394407	4.333764127	4.242442519
Nov-18	4.947	4.557191692	4.926693721	5.173028407	4.118215876	4.33496408	4.551712284	4.380290871
Dec-18	5.167	4.668058666	5.046549909	5.298877405	4.506645143	4.743836992	4.981028842	4.467403972
Jan-19	5.286	4.736283569	5.120306562	5.37632189	4.558235831	4.79814298	5.038050129	4.520832009
Feb-19	5.258	4.723642578	5.106640624	5.361972656	4.545233712	4.784456539	5.023679366	4.507213363
Mar-19	5.182	4.612047334	4.985997118	5.235296974	4.473754781	4.709215559	4.944676337	4.417774075
Apr-19	4.982	4.611973338	4.985917122	5.235212978	4.364743834	4.594467194	4.824190553	4.322101121
May-19	5.004	4.65886375	5.036609459	5.288439932	4.311906433	4.538848877	4.765791321	4.25595336
Jun-19	5.034	4.678714811	5.058070066	5.310973569	4.046572388	4.259549882	4.472527376	4.177759374
Jul-19	5.079	4.713439444	5.095610209	5.35039072	3.980570242	4.190073939	4.399577636	4.122635457
Aug-19	5.101	4.672055502	5.050870813	5.303414353	3.921329186	4.127714933	4.33410068	4.069279716
Sep-19	5.107	4.612263724	4.986231053	5.235542605	4.016051952	4.227423108	4.438794263	4.189107029
Oct-19	5.147	4.640543786	5.016804093	5.267644298	4.197287631	4.418197507	4.639107382	4.392764163
Nov-19	5.262	4.742625327	5.127162515	5.383520641	4.592534359	4.834246694	5.075959029	4.562442335
Dec-19	5.492	4.861207276	5.255359218	5.518127179	4.673612804	4.919592425	5.165572047	4.632956476
Jan-20	5.612	4.930092167	5.32982937	5.596320838	4.697902968	4.945161019	5.19241907	4.649014357
Feb-20	5.587	4.877649548	5.273134647	5.536791379	4.685844029	4.932467399	5.179090769	4.619737972
Mar-20	5.512	4.79516879	5.183966259	5.443164572	4.587657904	4.829113583	5.070569262	4.539563393
Apr-20	5.312	4.777780196	5.165167779	5.423426168	4.48583531	4.721931905	4.9580285	4.42657537
May-20	5.334	4.845823834	5.238728469	5.500664893	4.249804079	4.473477977	4.697151876	4.38197497
Jun-20	5.364	4.855591969	5.249288615	5.511753045	4.143764959	4.361857851	4.579950744	4.290717087
Jul-20	5.409	4.889317231	5.285748358	5.550035776	4.077886135	4.292511721	4.507137307	4.218603689
Aug-20	5.431	4.848447971	5.241565375	5.503643643	4.053557827	4.266902975	4.480248124	4.165994431
Sep-20	5.437	4.782241179	5.169990463	5.428489986	4.180914344	4.400962467	4.621010591	4.302825798
Oct-20	5.477	4.837884091	5.230144964	5.491652212	4.338740955	4.567095743	4.79545053	4.50663551

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Nov-20	5.597	4.94691827	5.348019752	5.615420739	4.745192958	4.994939956	5.244686953	4.695339013
Dec-20	5.832	5.05656533	5.466557113	5.739884969	4.768987381	5.019986717	5.270986052	4.721729552
Jan-21	5.962	5.147156726	5.564493757	5.842718445	4.816481233	5.069980246	5.323479258	4.762301636
Feb-21	5.937	5.103246028	5.517022732	5.792873869	4.789435169	5.041510705	5.29358624	4.734887287
Mar-21	5.862	5.032246797	5.440266807	5.712280148	4.77686598	5.028279979	5.279693978	4.68963494
Apr-21	5.662	4.994022933	5.398943711	5.668890897	4.575838076	4.816671659	5.057505242	4.486745225
May-21	5.684	5.059865906	5.470125304	5.743631569	4.337636847	4.565933524	4.7942302	4.411022086
Jun-21	5.714	5.094484064	5.507550339	5.782927856	4.269328503	4.494030003	4.718731503	4.294650487
Jul-21	5.759	5.096623927	5.509863705	5.785356891	4.18694473	4.407310242	4.627675754	4.209854967
Aug-21	5.781	5.063404115	5.473950395	5.747647915	4.157830872	4.376664075	4.595497279	4.162476791
Sep-21	5.787	4.99713063	5.402303384	5.672418553	4.203260378	4.424484608	4.645708839	4.30010126
Oct-21	5.827	5.031197274	5.439132188	5.711088797	4.403181791	4.634928201	4.866674611	4.536514615
Nov-21	5.945	5.15650088	5.574595546	5.853325323	4.850446815	5.105733489	5.361020163	4.758833045
Dec-21	6.18	5.235353792	5.659841937	5.942834034	4.900062321	5.157960338	5.415858355	4.823337601
Jan-22	6.307	5.375547333	5.811402523	6.101972649	5.031958962	5.296798908	5.561638853	4.939546562
Feb-22	6.282	5.366307579	5.801413599	6.091484279	5.017935455	5.282037321	5.546139187	4.926897895
Mar-22	6.207	5.224344794	5.647940318	5.930337334	4.926034578	5.185299555	5.444564533	4.80275689
Apr-22	6.002	5.354940117	5.789124451	6.078580674	4.838866317	5.093543492	5.348220666	4.728299677
May-22	5.997	5.438290204	5.879232653	6.173194286	4.627994285	4.871572932	5.115151579	4.710051666
Jun-22	6.029	5.463723986	5.906728633	6.202065065	4.599075359	4.841131957	5.083188555	4.604077333
Jul-22	6.072	5.412839475	5.851718351	6.144304269	4.445147138	4.679102251	4.913057363	4.451223617
Aug-22	6.114	5.346803839	5.780328475	6.069344899	4.381304508	4.611899482	4.842494456	4.368711691
Sep-22	6.125	5.264552912	5.691408554	5.975978982	4.477313695	4.712961784	4.948609873	4.525211153
Oct-22	6.18	5.347393613	5.780966068	6.070014371	4.74321438	4.992857242	5.242500104	4.86013292
Nov-22	6.3	5.478446205	5.922644546	6.218776774	5.193346435	5.466680458	5.740014481	5.056420452
Dec-22	6.535	5.516581774	5.963872188	6.262065798	5.186125523	5.459079498	5.732033473	5.070728141
Jan-23	6.66	5.53297712	5.981596887	6.280676731	5.149552217	5.420581281	5.691610345	5.00461773
Feb-23	6.635	5.492477987	5.937814039	6.234704741	5.144100289	5.414842409	5.68558453	5.00134335
Mar-23	6.56	5.420947998	5.860484323	6.153508539	5.07180488	5.338741979	5.605679078	4.926914786
Apr-23	6.325	5.498754378	5.944599328	6.241829294	4.947116089	5.20749062	5.467865151	4.834192968
May-23	6.31	5.590151478	6.043407003	6.345577353	4.7431994	4.992841474	5.242483548	4.806449322
Jun-23	6.35	5.602284714	6.056524015	6.359350216	4.734867353	4.984070898	5.233274443	4.709259528
Jul-23	6.4	5.551290781	6.001395439	6.301465211	4.561385553	4.801458477	5.041531401	4.53142082
Aug-23	6.445	5.48014038	5.924476086	6.22069989	4.496492357	4.733149849	4.969807342	4.444771619
Sep-23	6.46	5.375722699	5.811592107	6.102171713	4.598772688	4.840813356	5.082854024	4.602832432
Oct-23	6.525	5.482297916	5.926808558	6.223148986	4.878591513	5.135359488	5.392127462	4.912945771
Nov-23	6.645	5.613257269	6.068386237	6.371805549	5.323795708	5.603995483	5.884195257	5.121852216
Dec-23	6.88	5.639778305	6.097057627	6.401910508	5.32585152	5.606159495	5.886467469	5.163437756
Jan-24	7.005	5.60896832	6.063749535	6.366937012	5.231007381	5.506323559	5.781639737	5.0419131
Feb-24	6.98	5.568979733	6.02051863	6.321544561	5.223545743	5.498469203	5.773392663	5.017111254
Mar-24	6.905	5.412221367	5.851050126	6.143602632	5.084266353	5.351859319	5.619452285	4.872384596
Apr-24	6.655	5.569161504	6.020715139	6.321750896	5.110865024	5.37985792	5.648850816	4.903248218
May-24	6.64	5.655349073	6.11389089	6.419585435	4.934388977	5.19409366	5.453798343	4.889778
Jun-24	6.68	5.679787623	6.140310944	6.447326491	4.82242361	5.076235379	5.330047148	4.78874205
Jul-24	6.73	5.680510371	6.141092293	6.448146908	4.693897794	4.940945046	5.187992298	4.664606212
Aug-24	6.775	5.587069365	6.040074989	6.342078739	4.604579061	4.846925327	5.089271594	4.551792878
Sep-24	6.79	5.548471606	5.998347682	6.298265066	4.744671524	4.994391078	5.244110632	4.692216933
Oct-24	6.855	5.564118861	6.015263634	6.316026815	4.951747871	5.21236618	5.472984489	4.936035276
Nov-24	6.98	5.711309058	6.174388171	6.48310758	5.397798456	5.681893111	5.965987767	5.116073431
Dec-24	7.215	5.757906879	6.224764194	6.536002403	5.395040247	5.678989734	5.962939221	5.198174379
Jan-25	6.800832006	5.435052149	5.875732054	6.169518656	5.024952848	5.289424051	5.553895254	4.75807565
Feb-25	6.786767148	5.394166469	5.831531317	6.123107883	5.004499358	5.267894061	5.531288764	4.726811427
Mar-25	6.863765286	5.18873312	5.60944121	5.889913271	4.829009109	5.083167483	5.337325857	4.554138808

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Apr-25	7.007974407	5.436418607	5.877209305	6.17106977	4.959666269	5.220701336	5.481736403	4.715900438
May-25	7.220157448	5.541027849	5.990300378	6.289815396	4.809464157	5.06259385	5.315723542	4.739452375
Jun-25	7.263046556	5.588740089	6.041881177	6.343975236	4.726560661	4.975327012	5.224093363	4.64482083
Jul-25	7.106225839	5.584708698	6.037522917	6.339399063	4.572603444	4.813266783	5.053930122	4.503148392
Aug-25	6.918342048	5.444474405	5.885918276	6.180214189	4.433924379	4.66728882	4.900653261	4.345446696
Sep-25	6.952508956	5.347877147	5.781488807	6.070563247	4.516658141	4.754376991	4.99209584	4.46219814
Oct-25	7.110514592	5.369091704	5.804423464	6.094644637	4.976357347	5.238270891	5.500184436	4.719938904
Nov-25	7.152821764	5.499615901	5.945530704	6.242807239	5.238808025	5.514534763	5.790261501	5.035475195
Dec-25	7.195142616	5.578220313	6.030508446	6.332033869	5.23223472	5.507615494	5.782996269	5.134840277
Jan-26	6.941315368	5.559902468	6.010705371	6.31124064	5.207235241	5.481300254	5.755365267	5.113161254
Feb-26	6.905999321	5.550890217	6.000962397	6.301010517	5.192853774	5.466161867	5.739469961	5.100440921
Mar-26	6.983420494	5.40848231	5.847007902	6.139358297	5.10792532	5.376763495	5.645601669	4.974782753
Apr-26	7.139517211	5.566373075	6.017700622	6.318585653	5.173840022	5.446147392	5.718454761	5.102913189
May-26	7.368893674	5.688105085	6.149302795	6.456767935	5.07624271	5.343413379	5.610584048	5.102327991
Jun-26	7.412673049	5.742897973	6.208538349	6.518965267	4.992286084	5.255037983	5.517789882	5.006487034
Jul-26	7.19797232	5.727316999	6.191694053	6.501278756	4.813077044	5.066396888	5.319716733	4.849555397
Aug-26	7.107507045	5.601662528	6.055851382	6.358643951	4.672080114	4.917979067	5.16387802	4.706962111
Sep-26	7.142640514	5.473333856	5.917117682	6.212973566	4.791025783	5.043185035	5.295344286	4.843991352
Oct-26	7.331147281	5.585170211	6.03802185	6.339922942	5.14416779	5.414913463	5.685659136	5.144614443
Nov-26	7.37476986	5.664953649	6.124274215	6.430487926	5.429485212	5.715247592	6.001009972	5.28990966
Dec-26	7.418622898	5.760267135	6.227315821	6.538681612	5.437471479	5.723654189	6.009836898	5.315618915
Jan-27	7.220728861	5.728387032	6.192850846	6.502493388	5.398830848	5.68297984	5.967128832	5.279584818
Feb-27	7.213731421	5.726611382	6.190931224	6.500477785	5.397678093	5.681766414	5.965854734	5.274073342
Mar-27	7.278822495	5.611604747	6.066599727	6.369929713	5.34707306	5.628497958	5.909922856	5.174954325
Apr-27	7.447814936	5.757629694	6.224464534	6.535687761	5.385064189	5.66848862	5.951913051	5.265034024
May-27	7.6701445	5.853783974	6.328415107	6.644835862	5.284668902	5.562809371	5.840949839	5.257978872
Jun-27	7.71571967	5.922407599	6.402602809	6.72273295	5.204823176	5.478761237	5.752699299	5.166576782
Jul-27	7.511172303	5.897686386	6.375877174	6.694671032	5.024171948	5.28860205	5.553032153	5.024167871
Aug-27	7.415530113	5.77734283	6.245776033	6.558064835	4.895047056	5.152681112	5.410315167	4.886867773
Sep-27	7.468232684	5.659902495	6.118813509	6.424754184	5.151802477	5.422949975	5.694097474	5.026738175
Oct-27	7.60598947	5.750030553	6.216249246	6.527061709	5.414344579	5.699310083	5.984275587	5.279904634
Nov-27	7.651245259	5.841314186	6.314934255	6.630680968	5.629515291	5.92580557	6.222095848	5.437358762
Dec-27	7.695579736	5.898127401	6.376353947	6.695171644	5.623824506	5.91981527	6.215806033	5.427784901
Jan-28	7.434769256	5.813013604	6.284339031	6.598555983	5.530667715	5.82175549	6.112843264	5.336586862
Feb-28	7.385473063	5.799984894	6.270253939	6.583766636	5.512537222	5.80267076	6.092804298	5.312865047
Mar-28	7.478941149	5.662452235	6.121569983	6.427648483	5.370729374	5.653399341	5.936069308	5.171545528
Apr-28	7.663770038	5.819553732	6.29140944	6.605979912	5.42925689	5.715007253	6.000757615	5.286379002
May-28	7.886209044	5.953754889	6.436491772	6.758316361	5.354822108	5.636654851	5.918487593	5.297873351
Jun-28	7.933066998	6.014467213	6.502126716	6.827233052	5.248316958	5.524544166	5.800771374	5.200919154
Jul-28	7.58421738	5.944232181	6.426196953	6.7475068	5.032849175	5.297735973	5.562622772	5.004507977
Aug-28	7.499695641	5.829308127	6.301954732	6.617052468	4.904557362	5.16269196	5.420826558	4.866414705
Sep-28	7.567061842	5.643696988	6.101294041	6.406358743	5.047464982	5.313121033	5.578777085	4.967994204
Oct-28	7.694839425	5.809050232	6.280054305	6.59405702	5.534297239	5.825576041	6.116854843	5.282387911
Nov-28	7.74062506	5.90223745	6.380797244	6.699837106	5.718743451	6.019729949	6.320716446	5.429490097
Dec-28	7.786483831	5.945841735	6.427937011	6.749333861	5.73384779	6.035629253	6.337410715	5.404239802
Jan-29	7.421257921	5.821852452	6.293894542	6.60858927	5.59531982	5.889810337	6.184300854	5.248180914
Feb-29	7.338566702	5.73664599	6.201779449	6.511868421	5.502572043	5.792181098	6.081790153	5.156654413
Mar-29	7.407736064	5.542399656	5.991783411	6.291372582	5.22503106	5.500032694	5.775034329	4.954279845
Apr-29	7.618141726	5.738582992	6.203873504	6.51406718	5.359985228	5.642089714	5.924194199	5.142369004
May-29	7.862548555	5.882445376	6.359400406	6.677370426	5.318063663	5.59796175	5.877859838	5.187751864
Jun-29	7.909267603	5.970222844	6.454294967	6.777009715	5.260221471	5.537075232	5.813928994	5.080428542
Jul-29	7.672975782	5.925536215	6.405985097	6.726284352	5.041037367	5.306355123	5.571672879	4.898116897
Aug-29	7.46394814	5.768247891	6.235943666	6.547740849	4.866280963	5.122401014	5.378521064	4.722330834

PERIOD	NYMEX CURRENT MARKET	CASCADE NYMEX LO PROJECTED PRICE	NYMEX CASCADE PROJECTED PRICE	CASCADE NYMEX HI PROJECTED PRICE	CASCADE SUMAS LO FORECAST PRICE	SUMAS CASCADE FORECAST PRICE	CASCADE SUMAS HI FORECAST PRICE	CASCADE ROCKIES LO FORECAST PRICE
Sep-29	7.48147094	5.629166327	6.085585219	6.38986448	5.086030832	5.353716665	5.621402499	4.820261207
Oct-29	7.637834948	5.679038732	6.139501332	6.446476398	5.39998325	5.684192894	5.968402539	5.1225798
Nov-29	7.683282259	5.80900799	6.280008638	6.59400907	5.666229506	5.964452112	6.262674717	5.290860839
Dec-29	7.727064266	5.894342095	6.372261724	6.69087481	5.717151498	6.018054208	6.318956919	5.297578644
Jan-30	7.367588264	5.857346808	6.33226682	6.648880161	5.668181622	5.96650697	6.264832319	5.251020514
Feb-30	7.321648464	5.844755936	6.318655066	6.634587819	5.652267028	5.949754766	6.247242505	5.235030724
Mar-30	7.406757927	5.651078631	6.109274196	6.414737906	5.3627951	5.645047473	5.927299847	5.002567348
Apr-30	7.580241694	5.860636326	6.335823055	6.652614208	5.484706732	5.773375507	6.062044282	5.145747109
May-30	7.819005427	5.994241742	6.480261342	6.80427441	5.489615137	5.778542249	6.067469362	5.187345416
Jun-30	7.86546718	6.054519199	6.545426161	6.872697469	5.407456253	5.692059214	5.976662174	5.085189054
Jul-30	7.674693704	6.039804645	6.529518535	6.855994462	5.224090229	5.499042347	5.773994464	4.96363424
Aug-30	7.576169194	5.909768398	6.388938809	6.708385749	5.078127871	5.345397759	5.612667647	4.819570384
Sep-30	7.621866959	5.796888056	6.266906007	6.580251307	5.25502175	5.531601842	5.808181934	4.899749767
Oct-30	7.834628253	5.897418101	6.375587136	6.694366493	5.573282861	5.866613538	6.159944215	5.206878971
Nov-30	7.883184134	5.987347328	6.472807922	6.796448318	5.795249998	6.100263156	6.405276314	5.35798949
Dec-30	7.999686049	6.106775651	6.601919622	6.932015603	5.876833936	6.186140985	6.495448035	5.465264603
Jan-31	7.441264146	5.888864991	6.366340531	6.684657558	5.481198995	5.769683153	6.05816731	5.059866277
Feb-31	7.394864948	5.833589632	6.306583386	6.621912555	5.476689382	5.764936192	6.053183002	5.055280715
Mar-31	7.480825506	5.52348101	5.971330822	6.269897363	5.07507302	5.342182126	5.609291233	4.711242991
Apr-31	7.656044111	5.762721125	6.229968784	6.541467223	5.220102684	5.49484493	5.769587177	4.877753465
May-31	7.897195481	5.86878125	6.344628379	6.661859798	5.192546138	5.46583804	5.739129942	4.88725372
Jun-31	7.944121852	5.938843698	6.420371565	6.741390144	5.117111967	5.38643365	5.655755332	4.791622097
Jul-31	7.751440641	5.986801876	6.472218244	6.795829156	4.995140329	5.258042451	5.520944574	4.732079779
Aug-31	7.651930886	5.835037496	6.308148644	6.623556077	4.830819642	5.085073307	5.339326973	4.569676581
Sep-31	7.698085629	5.655714272	6.1142857	6.419999985	4.947225401	5.207605685	5.46798597	4.588400698
Oct-31	7.912974535	5.723514019	6.187582723	6.496961859	5.232198517	5.507577386	5.782956256	4.862130588
Nov-31	7.962015975	5.835569709	6.30872401	6.624160211	5.475172862	5.763339855	6.051506848	5.033539749
Dec-31	8.079682909	5.965520795	6.44921167	6.771672253	5.563658664	5.856482804	6.149306944	5.147973637
Jan-32	7.515676788	6.123585201	6.620092109	6.951096715	5.537435985	5.828879984	6.120323983	5.11188994
Feb-32	7.468813598	6.066157375	6.558007973	6.885908371	5.532881276	5.824085554	6.115289832	5.107258522
Mar-32	7.555633761	5.743972872	6.209700402	6.520185422	5.12724875	5.397103947	5.666959145	4.759780421
Apr-32	7.732604552	5.992529191	6.478409936	6.802330433	5.27372871	5.551293379	5.828858048	4.927956
May-32	7.976167436	6.102719383	6.597534468	6.927411192	5.245896599	5.52199642	5.798096241	4.937551257
Jun-32	8.023563071	6.175510119	6.676227156	7.010038514	5.169708087	5.441797986	5.713887885	4.840963318
Jul-32	7.828955047	6.225335827	6.730092786	7.066597426	5.046516732	5.312122876	5.57772902	4.780825577
Aug-32	7.728450195	6.06766162	6.559634184	6.887615893	4.880552839	5.137424041	5.394295243	4.616798346
Sep-32	7.775066485	5.881355404	6.358222059	6.676133162	4.998122655	5.261181742	5.524240829	4.635709705
Oct-32	7.992104281	5.951795328	6.434373328	6.756091994	5.285945502	5.56415316	5.842360818	4.912176894
Nov-32	8.041636135	6.068214558	6.560231954	6.888243552	5.531349591	5.822473254	6.113596916	5.085300146
Dec-32	8.160479738	6.203226044	6.706190317	7.041499833	5.62072025	5.916547632	6.212375014	5.200878374
Jan-33	7.590833556	6.273806136	6.782493119	7.121617775	5.594235345	5.888668784	6.183102223	5.164433839
Feb-33	7.543501734	6.21500073	6.718919708	7.054865694	5.589635089	5.883826409	6.17801773	5.159756107
Mar-33	7.631190099	5.885087664	6.362256934	6.68036978	5.179946238	5.452574987	5.725203736	4.808803225
Apr-33	7.809930598	6.139606353	6.637412273	6.969282887	5.327890998	5.608306313	5.888721629	4.97866056
May-33	8.05592911	6.252439788	6.759394366	7.097364084	5.299780565	5.578716385	5.857652204	4.988351769
Jun-33	8.103798701	6.326976629	6.839974734	7.181973471	5.222830168	5.497715966	5.772601764	4.890797951
Jul-33	7.907244598	6.377997556	6.895132493	7.239889118	5.098406899	5.366744105	5.63508131	4.830058833
Aug-33	7.805734697	6.216541059	6.720584929	7.056614175	4.930783367	5.190298281	5.449813195	4.66439133
Sep-33	7.85281715	6.025765729	6.514341328	6.840058395	5.049528882	5.31529356	5.581058238	4.683491802
Oct-33	8.072025323	6.097895366	6.592319315	6.92193528	5.340229957	5.621294692	5.902359426	4.962723663
Nov-33	8.122052497	6.217107261	6.721197039	7.057256891	5.588088087	5.882197986	6.176307886	5.137578148
Dec-33	8.242084535	6.355357403	6.870656652	7.214189484	5.678352453	5.977213108	6.276073764	5.254312157

PERIOD	ROCKIES CASCADE FORECAST PRICE	CASCADE ROCKIES HI FORECAST PRICE	CASCADE AECO LO FORECAST PRICE	AECO CASCADE FORECAST PRICE	CASCADE AECO HI FORECAST PRICE	CASCADE MALIN LO FORECAST PRICE	MALIN CASCADE FORECAST PRICE	CASCADE MALIN HI FORECAST PRICE
Jan-12	3.038362609	3.190280739	2.619804183	2.757688614	2.895573044	2.908374518	3.061446861	3.214519204
Feb-12	2.698835722	2.833777508	2.273319773	2.392968182	2.512616592	2.56139512	2.69620539	2.831015659
Mar-12	2.480715958	2.604751756	2.072123224	2.181182341	2.290241458	2.354171242	2.478074992	2.601978741
Apr-12	2.396461689	2.516284774	1.981949904	2.086263056	2.190576209	2.273466819	2.393122967	2.512779116
May-12	1.96373973	2.061926716	1.534789937	1.615568355	1.696346773	1.821689386	1.917567774	2.013446163
Jun-12	2.676900215	2.810745226	2.212118879	2.328546188	2.444973498	2.463130759	2.59276922	2.722407681
Jul-12	2.46458199	2.587811089	1.922129902	2.023294633	2.124459365	2.271141092	2.390674833	2.510208575
Aug-12	2.441299959	2.563364957	1.998607229	2.103797083	2.208986937	2.354092233	2.477991824	2.601891416
Sep-12	2.443687903	2.565872298	2.044795205	2.152416005	2.260036805	2.347585919	2.471143072	2.594700226
Oct-12	2.507633647	2.633015329	2.155020953	2.268443108	2.381865264	2.428102644	2.55589752	2.683692396
Nov-12	2.619723699	2.750709884	2.336851449	2.45984363	2.582835812	2.648493384	2.787887772	2.927282161
Dec-12	2.86912605	3.012582352	2.569917068	2.705175861	2.840434654	2.875734068	3.027088492	3.178442917
Jan-13	3.170782392	3.329321511	2.814178377	2.962293029	3.11040768	3.12145193	3.285738874	3.450025817
Feb-13	3.223221005	3.384382055	2.794975658	2.94207964	3.089183622	3.118096922	3.282207286	3.446317651
Mar-13	3.203436981	3.36360883	2.808444941	2.956257833	3.104070724	3.101082901	3.264297791	3.427512681
Apr-13	3.216968203	3.377816613	2.790732717	2.937613387	3.084494056	3.060199446	3.221262575	3.382325703
May-13	3.245618045	3.407898947	2.797184844	2.944405099	3.091625354	3.087036187	3.249511776	3.411987365
Jun-13	3.276516845	3.440342687	2.802329637	2.949820671	3.097311704	3.116862578	3.280907977	3.444953376
Jul-13	3.254312987	3.417028636	2.827553116	2.976371701	3.125190286	3.153583914	3.319562014	3.485540115
Aug-13	3.270965183	3.434513442	2.829885578	2.978826924	3.127768271	3.169519136	3.336335933	3.50315273
Sep-13	3.289813567	3.454304245	2.869894827	3.020941923	3.171989019	3.187003068	3.354740072	3.522477075
Oct-13	3.338212555	3.505123183	2.929890498	3.084095261	3.238300024	3.233208569	3.403377441	3.573546313
Nov-13	3.447592101	3.619971706	3.094443657	3.257309113	3.420174568	3.390199704	3.568631267	3.747062831
Dec-13	3.610018465	3.790519388	3.237225445	3.407605731	3.577986018	3.54372935	3.730241422	3.916753493
Jan-14	3.800863379	3.990906548	3.396948655	3.575735426	3.754522198	3.724216675	3.920228079	4.116239483
Feb-14	3.847730381	4.0401169	3.38499493	3.563152558	3.741310186	3.717135583	3.912774297	4.108413012
Mar-14	3.725789111	3.912078567	3.302503888	3.476319882	3.650135876	3.600040916	3.789516754	3.978992592
Apr-14	3.701353496	3.886421171	3.292996619	3.46631223	3.639627842	3.605945818	3.79573244	3.985519062
May-14	3.705256934	3.890519781	3.272305011	3.444531591	3.61675817	3.607583404	3.797456215	3.987329026
Jun-14	3.706643774	3.891975963	3.254484477	3.425773134	3.59706179	3.608334343	3.798246677	3.988159011
Jul-14	3.681090227	3.865144738	3.289897162	3.463049644	3.636202126	3.627215943	3.818122045	4.009028147
Aug-14	3.69148071	3.876054746	3.286797759	3.459787114	3.63277647	3.636419118	3.827809597	4.019200077
Sep-14	3.721434601	3.907506331	3.329749444	3.504999414	3.680249385	3.663334788	3.856141883	4.048948977
Oct-14	3.779430315	3.968401831	3.351150861	3.527527222	3.703903584	3.717904389	3.913583568	4.109262746
Nov-14	3.860992449	4.054042072	3.499365225	3.683542342	3.867719459	3.79632588	3.996132505	4.19593913
Dec-14	3.992204878	4.191815122	3.600326063	3.789816908	3.979307754	3.919971424	4.12628571	4.332599995
Jan-15	4.373842973	4.592535122	3.920883939	4.127246252	4.333608564	4.25152256	4.475286905	4.69905125
Feb-15	4.353446433	4.571118754	3.900284464	4.105562594	4.310840724	4.222674657	4.444920691	4.667166726
Mar-15	4.225282722	4.436546858	3.850415767	4.053069229	4.25572269	4.10010836	4.315903537	4.531698714
Apr-15	4.144978341	4.352227258	3.733343714	3.929835488	4.126327263	4.019310083	4.230852719	4.442395355
May-15	4.151453216	4.359025877	3.709553439	3.904793094	4.100032749	4.022492102	4.234202213	4.445912323
Jun-15	4.112093636	4.317698318	3.671589285	3.864830827	4.058072368	3.84071827	4.042861337	4.245004403
Jul-15	4.114798846	4.320538789	3.552238558	3.739198482	3.926158406	3.833565672	4.035332286	4.2370989
Aug-15	4.109462112	4.314935218	3.529079833	3.714820877	3.900561921	3.829227543	4.030765834	4.232304126
Sep-15	4.144838287	4.352080202	3.576815597	3.76506905	3.953322502	3.909155418	4.11490044	4.320645462
Oct-15	4.2343969	4.446116745	3.649689433	3.841778351	4.033867268	4.012651736	4.223843933	4.43503613
Nov-15	4.333983344	4.550682512	3.835134253	4.036983424	4.238832596	4.163679967	4.382821018	4.601962068
Dec-15	4.419924969	4.640921217	3.883564728	4.087962872	4.292361015	4.223096031	4.445364243	4.667632455
Jan-16	4.41063406	4.631165763	3.914077825	4.120081921	4.326086017	4.237710351	4.460747738	4.683785125
Feb-16	4.396930289	4.616776804	3.896269723	4.101336551	4.306403378	4.224986669	4.447354388	4.669722108
Mar-16	4.212926778	4.423573117	3.81255876	4.013219747	4.213880734	4.048209633	4.261273298	4.474336963
Apr-16	4.198082121	4.407986227	3.743634119	3.940667494	4.137700868	4.026886463	4.238827856	4.450769249
May-16	4.146405469	4.353725743	3.734478725	3.931030237	4.127581748	3.97257242	4.181655179	4.390737938

PERIOD	ROCKIES CASCADE FORECAST PRICE	CASCADE ROCKIES HI FORECAST PRICE	CASCADE AECO LO FORECAST PRICE	AECO CASCADE FORECAST PRICE	CASCADE AECO HI FORECAST PRICE	CASCADE MALIN LO FORECAST PRICE	MALIN CASCADE FORECAST PRICE	CASCADE MALIN HI FORECAST PRICE
Jun-16	4.059191007	4.262150557	3.712323638	3.907709092	4.103094547	3.924999767	4.131578702	4.338157637
Jul-16	4.000545688	4.200572972	3.664426113	3.857290645	4.050155177	3.879075942	4.083237834	4.287399726
Aug-16	3.974166558	4.172874886	3.618052963	3.808476803	3.998900643	3.85619377	4.059151337	4.262108904
Sep-16	4.088948058	4.293395461	3.658826279	3.851396083	4.043965887	3.944530233	4.152137088	4.359743942
Oct-16	4.235154961	4.446912709	3.762832685	3.960876511	4.158920336	4.06920908	4.283377979	4.497546878
Nov-16	4.397927953	4.61782435	3.884186641	4.088617516	4.293048392	4.226152793	4.448581887	4.671010981
Dec-16	4.461679663	4.684763646	3.905288533	4.110830034	4.316371536	4.287111929	4.512749399	4.738386869
Jan-17	4.513854795	4.739547534	3.953107252	4.161165528	4.369223805	4.336881699	4.565138631	4.793395563
Feb-17	4.448610918	4.671041464	3.919603119	4.12589802	4.332192921	4.274748716	4.499735491	4.724722266
Mar-17	4.200931975	4.410978573	3.80752828	4.007924506	4.208320731	4.035984229	4.248404452	4.460824674
Apr-17	4.235679318	4.447463283	3.760682161	3.958612801	4.156543441	4.069337575	4.283513237	4.497688899
May-17	4.169556909	4.378034755	3.739651065	3.936474805	4.133298546	4.058419147	4.272020155	4.485621162
Jun-17	4.109405989	4.314876288	3.715117464	3.910649962	4.10618246	4.004970855	4.215758795	4.426546735
Jul-17	4.03570835	4.237493767	3.644062817	3.835855597	4.027648377	3.934926842	4.142028254	4.349129667
Aug-17	3.973026204	4.171677514	3.572979706	3.76103127	3.949082833	3.879752925	4.083950448	4.28814797
Sep-17	4.125712573	4.331998201	3.661295907	3.853995692	4.046695476	4.031542375	4.243728816	4.455915256
Oct-17	4.301705649	4.516790931	3.800992062	4.001044276	4.20109649	4.192700994	4.413369467	4.634037941
Nov-17	4.477336813	4.701203654	3.909291844	4.115044047	4.320796249	4.300595074	4.526942183	4.753289292
Dec-17	4.533713468	4.760399141	3.954662682	4.162802823	4.370942965	4.35446365	4.583645948	4.812828245
Jan-18	4.607080413	4.837434434	4.020999149	4.232630683	4.444262218	4.424440841	4.657306148	4.890171455
Feb-18	4.584593514	4.81382319	4.003003709	4.213688115	4.42437252	4.403293912	4.635046223	4.866798534
Mar-18	4.363169682	4.581328166	3.878868758	4.083019745	4.287170732	4.189594089	4.410099041	4.630603993
Apr-18	4.396824868	4.616666112	3.840506145	4.042638047	4.24476995	4.214117008	4.435912641	4.657708273
May-18	4.374004965	4.592705213	3.813880075	4.014610605	4.215341136	4.199004267	4.420004492	4.641004717
Jun-18	4.286521445	4.500847518	3.770924688	3.969394408	4.167864129	4.118807684	4.335587035	4.552366387
Jul-18	4.235428452	4.447199874	3.711378105	3.906713795	4.102049485	4.074841874	4.289307236	4.503772598
Aug-18	4.189515426	4.398991198	3.668330146	3.861400154	4.054470162	4.054557382	4.267955139	4.481352896
Sep-18	4.295052068	4.509804671	3.730245716	3.926574437	4.122903159	4.131690875	4.34914829	4.566605704
Oct-18	4.465728967	4.689015416	3.857094547	4.060099523	4.263104499	4.282487756	4.507881849	4.733275941
Nov-18	4.610832496	4.84137412	4.013054376	4.224267764	4.435481152	4.426504092	4.659477992	4.892451892
Dec-18	4.702530496	4.937657021	4.0741207	4.288548105	4.50297551	4.51408559	4.751669042	4.989252495
Jan-19	4.758770536	4.996709062	4.135671396	4.353338311	4.571005227	4.567677612	4.808081697	5.048485781
Feb-19	4.744435119	4.981656875	4.118508515	4.335272121	4.552035727	4.554333028	4.794034767	5.033736505
Mar-19	4.6502885	4.882802925	4.123074358	4.340078272	4.557082185	4.463763516	4.698698438	4.93363336
Apr-19	4.549580128	4.777059134	3.972327776	4.181397659	4.390467542	4.363747697	4.593418629	4.82308956
May-19	4.479950905	4.70394845	3.979013958	4.188435745	4.397857533	4.343583036	4.572192669	4.800802303
Jun-19	4.397641446	4.617523518	3.923951724	4.130475499	4.336999274	4.269034756	4.493720796	4.718406835
Jul-19	4.339616271	4.556597084	3.857406437	4.060427829	4.26344922	4.213948891	4.435735675	4.657522458
Aug-19	4.283452333	4.49762495	3.797798002	3.997682107	4.197566213	4.175461362	4.395222486	4.61498361
Sep-19	4.409586346	4.630065663	3.877229912	4.081294644	4.285359376	4.289302794	4.515055573	4.740808352
Oct-19	4.623962277	4.855160391	4.046535053	4.259510583	4.472486112	4.475647354	4.711207741	4.946768128
Nov-19	4.802570879	5.042699422	4.1980733	4.419024526	4.639975752	4.609855088	4.85247904	5.095102992
Dec-19	4.87679629	5.120636105	4.236905856	4.459900901	4.682895946	4.680851216	4.927211806	5.173572397
Jan-20	4.893699323	5.138384289	4.256953719	4.481003915	4.705054111	4.697121099	4.944337999	5.191554898
Feb-20	4.862882075	5.106026179	4.241246355	4.464469848	4.68769334	4.667975629	4.913658557	5.159341485
Mar-20	4.778487782	5.017412171	4.272932171	4.497823338	4.722714505	4.586615562	4.828016381	5.0694172
Apr-20	4.659553022	4.892530673	4.132330189	4.349821252	4.567312315	4.526391979	4.764623136	5.002854292
May-20	4.612605232	4.843235493	4.125377776	4.342502922	4.559628068	4.504304992	4.741373676	4.97844236
Jun-20	4.516544302	4.742371517	4.061172772	4.274918707	4.488664643	4.41555625	4.647953947	4.880351645
Jul-20	4.440635462	4.662667235	3.98945665	4.199428053	4.409399455	4.346440321	4.575200338	4.803960355
Aug-20	4.385257296	4.604520161	3.927149216	4.13384128	4.340533344	4.299095322	4.525363497	4.751631672
Sep-20	4.529290314	4.755754829	4.038859729	4.251431294	4.464002858	4.434500207	4.667894955	4.901289702
Oct-20	4.743826852	4.981018195	4.191593314	4.412203489	4.632813663	4.616873275	4.859866605	5.102859935

PERIOD	ROCKIES CASCADE FORECAST PRICE	CASCADE ROCKIES HI FORECAST PRICE	CASCADE AECO LO FORECAST PRICE	AECO CASCADE FORECAST PRICE	CASCADE AECO HI FORECAST PRICE	CASCADE MALIN LO FORECAST PRICE	MALIN CASCADE FORECAST PRICE	CASCADE MALIN HI FORECAST PRICE
Nov-20	4.942462119	5.189585225	4.357454802	4.586794528	4.816134254	4.745192958	4.994939956	5.244686953
Dec-20	4.970241634	5.218753715	4.369218122	4.599176971	4.829135819	4.771199357	5.022315112	5.273430868
Jan-21	5.012949091	5.263596546	4.425355578	4.65826903	4.891182481	4.812062717	5.065329176	5.318595635
Feb-21	4.984091881	5.233296476	4.397389028	4.628830556	4.860272083	4.784928772	5.036767129	5.288605485
Mar-21	4.936457832	5.183280724	4.44114301	4.674887378	4.908631747	4.775761578	5.02711745	5.278473323
Apr-21	4.72288971	4.959034196	4.233173586	4.455972196	4.678770805	4.626534139	4.870035935	5.113537732
May-21	4.643181143	4.8753402	4.208873114	4.430392752	4.65191239	4.556711716	4.796538649	5.036365581
Jun-21	4.520684724	4.74671896	4.177005524	4.39684792	4.616690316	4.473555998	4.709006314	4.94445663
Jul-21	4.431426282	4.652997596	4.088443801	4.303625054	4.518806307	4.40488847	4.636724705	4.868560941
Aug-21	4.381554517	4.600632243	4.041199259	4.253893957	4.466588654	4.364982904	4.594718847	4.824454789
Sep-21	4.526422379	4.752743498	4.06010589	4.273795674	4.487485458	4.456357006	4.690902112	4.925447217
Oct-21	4.775278542	5.014042469	4.256789746	4.480831311	4.704872877	4.671320581	4.917179559	5.163038537
Nov-21	5.009297942	5.259762839	4.455547709	4.690050219	4.92455273	4.852720398	5.108126735	5.363533071
Dec-21	5.077197475	5.331057348	4.499408816	4.736219806	4.973030796	4.902414726	5.160436553	5.418458381
Jan-22	5.199522697	5.459498832	4.634188319	4.878092968	5.121997616	5.005561567	5.269012176	5.532462785
Feb-22	5.186208311	5.445518726	4.619254291	4.862372938	5.105491585	4.996390092	5.259357992	5.522325891
Mar-22	5.055533568	5.308310246	4.597303589	4.839266936	5.081230283	4.89613417	5.153825442	5.411516714
Apr-22	4.977157555	5.226015433	4.521545103	4.759521161	4.997497219	4.889517987	5.146861039	5.404204091
May-22	4.957949122	5.205846578	4.500320006	4.737178954	4.974037902	4.841167079	5.095965346	5.350763613
Jun-22	4.846397193	5.088717053	4.507697781	4.744945033	4.982192285	4.790616721	5.042754443	5.294892165
Jul-22	4.685498544	4.919773472	4.34762332	4.5764456	4.80526788	4.631176453	4.874922582	5.118668712
Aug-22	4.598643886	4.82857608	4.265230985	4.489716827	4.714202668	4.57710629	4.818006621	5.058906953
Sep-22	4.763380161	5.001549169	4.347952461	4.576792065	4.805631668	4.73057159	4.979549042	5.228526494
Oct-22	5.115929389	5.371725859	4.598136474	4.840143657	5.08215084	5.001871525	5.265127921	5.528384317
Nov-22	5.322547844	5.588675236	4.800412876	5.053066185	5.305719494	5.199358589	5.473009041	5.746659493
Dec-22	5.33760857	5.604488998	4.784966475	5.036806816	5.288647156	5.189757639	5.462902778	5.736047917
Jan-23	5.268018663	5.531419596	4.753781095	5.0039801	5.254179105	5.114279738	5.383452356	5.652624973
Feb-23	5.264571947	5.527800545	4.747425894	4.997290415	5.247154936	5.11362503	5.38276319	5.651901349
Mar-23	5.18622609	5.445537395	4.778863691	5.030382833	5.281901974	5.05655434	5.322688779	5.588823218
Apr-23	5.088624177	5.343055386	4.637880388	4.881979356	5.126078323	4.997787691	5.260829148	5.523870605
May-23	5.059420339	5.312391356	4.625928611	4.869398538	5.112868465	4.952745513	5.21341633	5.474087146
Jun-23	4.957115293	5.204971058	4.641265115	4.885542226	5.129819338	4.91096384	5.169435621	5.427907402
Jul-23	4.769916653	5.008412485	4.461562784	4.696381878	4.931200972	4.73292083	4.982021927	5.231123023
Aug-23	4.678706967	4.912642315	4.379050336	4.609526669	4.840003002	4.672896881	4.918838822	5.164780763
Sep-23	4.845086771	5.087341109	4.468580661	4.703769117	4.938957573	4.851923223	5.107287603	5.362651983
Oct-23	5.171521864	5.430097957	4.732678737	4.981767092	5.230855447	5.137182975	5.407561026	5.677939077
Nov-23	5.391423385	5.660994554	4.929556164	5.189006488	5.448456812	5.337254199	5.618162315	5.89907043
Dec-23	5.435197638	5.70695752	4.924303349	5.183477209	5.44265107	5.337897571	5.618839548	5.899781526
Jan-24	5.307276947	5.572640795	4.83418531	5.088616116	5.343046922	5.195406933	5.468849404	5.742291874
Feb-24	5.281169741	5.545228229	4.825818134	5.079808562	5.33379899	5.192742968	5.46604523	5.739347491
Mar-24	5.128825891	5.385267185	4.7948771	5.047239053	5.299601005	5.070119763	5.336968171	5.60381658
Apr-24	5.161313913	5.419379609	4.803398269	5.056208704	5.309019139	5.161507633	5.43316593	5.704824226
May-24	5.147134737	5.404491474	4.818961426	5.072590975	5.326220524	5.144087297	5.414828733	5.68557017
Jun-24	5.040781106	5.292820161	4.733670687	4.982811249	5.231951812	5.046349153	5.311946476	5.5775438
Jul-24	4.910111802	5.155617392	4.599094666	4.841152279	5.083209893	4.92793238	5.187297242	5.446662104
Aug-24	4.791360924	5.03092897	4.489976414	4.726290962	4.96260551	4.817191046	5.070727417	5.324263788
Sep-24	4.939175719	5.186134505	4.629230836	4.872874564	5.116518293	4.963333715	5.224561805	5.485789895
Oct-24	5.195826607	5.455617937	4.821717111	5.075491695	5.32926628	5.21039188	5.484623032	5.758854183
Nov-24	5.385340453	5.654607476	5.005580629	5.269032241	5.532483853	5.397280682	5.681348086	5.965415491
Dec-24	5.471762504	5.745350629	5.000882694	5.264087047	5.527291399	5.398275993	5.682395782	5.966515571
Jan-25	5.008500684	5.258925719	4.629903348	4.873582472	5.117261595	4.989906414	5.252533067	5.515159721
Feb-25	4.975590975	5.224370524	4.608553832	4.851109297	5.093664762	4.974253767	5.236056597	5.497859427
Mar-25	4.793830325	5.033521841	4.540965705	4.7799639	5.018962095	4.816017204	5.069491793	5.322966383

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Apr-25	4.964105724	5.212311011	4.65243326	4.897298168	5.142163077	5.010302084	5.274002194	5.537702303
May-25	4.988897237	5.238342098	4.682211617	4.928643807	5.175075997	5.019304264	5.283478173	5.547652082
Jun-25	4.889285085	5.133749339	4.638138878	4.88225145	5.126364023	4.937451717	5.197317597	5.457183477
Jul-25	4.740156202	4.977164013	4.478136891	4.713828306	4.949519722	4.806020144	5.058968573	5.311917001
Aug-25	4.574154417	4.802862138	4.319536905	4.546880953	4.774225	4.650632348	4.895402471	5.140172595
Sep-25	4.697050674	4.931903208	4.398812501	4.630328948	4.861845396	4.73540323	4.984634979	5.233866728
Oct-25	4.968356741	5.216774578	4.656181809	4.901244009	5.14630621	5.027111846	5.29169668	5.556281514
Nov-25	5.300500206	5.565525216	4.864804233	5.120846561	5.376888889	5.23769275	5.51336079	5.789028829
Dec-25	5.405095029	5.67534978	4.837799481	5.092420506	5.347041532	5.216380337	5.490926671	5.765473004
Jan-26	5.382275005	5.651388755	4.812089253	5.065357108	5.318624964	5.17210002	5.44431581	5.716531601
Feb-26	5.36888518	5.637329439	4.796602477	5.049055239	5.301508001	5.161695851	5.433364054	5.705032257
Mar-26	5.236613425	5.498444096	4.828938198	5.08309284	5.337247482	5.075898099	5.343050631	5.610203162
Apr-26	5.371487567	5.640061946	4.883317103	5.140333793	5.397350483	5.203992295	5.477886627	5.751780958
May-26	5.37087157	5.639415148	4.959942237	5.220991828	5.48204142	5.260392548	5.537255313	5.814118079
Jun-26	5.269986351	5.533485669	4.896390784	5.154095562	5.41180034	5.16807544	5.440079411	5.712083381
Jul-26	5.104795154	5.360034912	4.71087605	4.958816894	5.206757739	4.983179497	5.245452102	5.507724707
Aug-26	4.954696959	5.202431807	4.564136498	4.804354208	5.044571919	4.846517279	5.101597136	5.356676993
Sep-26	5.098938266	5.353885179	4.67231311	4.918224326	5.164135542	4.984479691	5.246820727	5.509161763
Oct-26	5.415383624	5.686152805	4.920523285	5.179498195	5.438473104	5.253421649	5.529917525	5.806413402
Nov-26	5.568325957	5.846742255	5.071859919	5.338799914	5.60573991	5.41313933	5.6980414	5.98294347
Dec-26	5.595388331	5.875157748	5.036910838	5.302011408	5.567111979	5.400701851	5.684949317	5.969196782
Jan-27	5.557457703	5.835330588	4.997344737	5.260362881	5.523381025	5.349755602	5.631321686	5.91288777
Feb-27	5.55165615	5.829238957	4.995059494	5.257957362	5.52085523	5.346627788	5.62802925	5.909430713
Mar-27	5.447320342	5.719686359	5.068856031	5.335637927	5.602419823	5.317388278	5.597250819	5.87711336
Apr-27	5.542141078	5.819248132	5.107609732	5.376431296	5.645252861	5.414391558	5.699359534	5.984327511
May-27	5.534714602	5.811450332	5.162693757	5.434414481	5.706135205	5.457357053	5.744586371	6.03181569
Jun-27	5.438501876	5.71042697	5.098985988	5.367353671	5.635721355	5.369749704	5.65236811	5.934986515
Jul-27	5.288597759	5.553027646	4.911680712	5.170190223	5.428699734	5.183004784	5.455794509	5.728584235
Aug-27	5.14407134	5.401274907	4.772866251	5.024069738	5.275273225	5.05169419	5.317572832	5.583451473
Sep-27	5.291303342	5.555868509	4.887667893	5.144913572	5.40215925	5.193902048	5.467265314	5.740628579
Oct-27	5.557794351	5.835684069	5.111433598	5.380456419	5.64947924	5.446382219	5.733033914	6.01968561
Nov-27	5.723535539	6.009712316	5.244225122	5.52023697	5.796248819	5.610779859	5.906084062	6.201388265
Dec-27	5.713457791	5.99913068	5.214993983	5.48946735	5.763940718	5.58720799	5.881271569	6.175335147
Jan-28	5.617459854	5.898332847	5.120862346	5.390381416	5.659900487	5.498847966	5.788261017	6.077674068
Feb-28	5.592489523	5.872113999	5.101747946	5.370260996	5.638774046	5.472567181	5.760597033	6.048626885
Mar-28	5.443732135	5.715918741	5.078024648	5.345289103	5.612553559	5.316951583	5.59679114	5.876630698
Apr-28	5.564609475	5.842839949	5.16654743	5.438470979	5.710394528	5.458492754	5.745781846	6.033070939
May-28	5.57670879	5.85554423	5.233326232	5.508764454	5.784202677	5.517121264	5.807496068	6.097870871
Jun-28	5.474651741	5.748384328	5.137913124	5.408329605	5.678746085	5.408494737	5.693152355	5.977809973
Jul-28	5.267903133	5.53129829	4.906436487	5.164669987	5.422903486	5.213744241	5.488151832	5.762559424
Aug-28	5.122541794	5.378668884	4.777517729	5.028966031	5.280414332	5.08654913	5.354262242	5.621975354
Sep-28	5.229467583	5.490940963	4.911737352	5.170249844	5.428762336	5.246614853	5.522752476	5.7988901
Oct-28	5.560408328	5.838428744	5.229102255	5.504318163	5.779534072	5.567411195	5.860432837	6.153454479
Nov-28	5.715252734	6.001015371	5.354416998	5.636228419	5.91803984	5.71267422	6.013341284	6.314008349
Dec-28	5.688673476	5.97310715	5.320975642	5.601026992	5.881078342	5.71222723	6.012870769	6.313514307
Jan-29	5.524400963	5.800621011	5.187257577	5.460271133	5.73328469	5.530531073	5.821611656	6.112692239
Feb-29	5.428057277	5.699460141	5.09350415	5.361583316	5.629662482	5.442374857	5.728815639	6.015256421
Mar-29	5.215031416	5.475782987	4.95343365	5.214140684	5.474847719	5.171563118	5.443750651	5.715938183
Apr-29	5.413020004	5.683671004	5.101769481	5.370283664	5.638797848	5.391958089	5.675745357	5.959532625
May-29	5.460791436	5.733831007	5.211185945	5.485458889	5.759731834	5.481238006	5.769724217	6.058210428
Jun-29	5.347819518	5.615210494	5.149202017	5.420212649	5.691223282	5.378251661	5.661317538	5.944383415
Jul-29	5.155912523	5.413708149	4.923186744	5.182301835	5.441416927	5.180725263	5.453395013	5.726064764
Aug-29	4.970874562	5.219418291	4.74223427	4.991825547	5.241416825	5.032105329	5.296952977	5.561800626

PERIOD	ROCKIES CASCADE FORECAST PRICE	CASCADE ROCKIES HI FORECAST PRICE	CASCADE AECO LO FORECAST PRICE	AECO CASCADE FORECAST PRICE	CASCADE AECO HI FORECAST PRICE	CASCADE MALIN LO FORECAST PRICE	MALIN CASCADE FORECAST PRICE	CASCADE MALIN HI FORECAST PRICE
Sep-29	5.073959166	5.327657124	4.841089207	5.095883375	5.350677544	5.130796281	5.40083819	5.6708801
Oct-29	5.392189263	5.661798726	5.116181875	5.385454605	5.654727336	5.440063821	5.726382969	6.012702118
Nov-29	5.569327199	5.847793559	5.319814487	5.599804723	5.879794959	5.665000983	5.963158929	6.261316876
Dec-29	5.576398573	5.855218501	5.304657602	5.583850107	5.863042612	5.683741283	5.982885561	6.282029839
Jan-30	5.527390015	5.803759516	5.260501706	5.537370217	5.814238728	5.606183779	5.901246083	6.196308387
Feb-30	5.510558657	5.786086589	5.243035151	5.518984369	5.794933588	5.594335724	5.888774446	6.183213169
Mar-30	5.265860366	5.529153385	5.091783866	5.359772491	5.627761115	5.309505186	5.588952827	5.868400468
Apr-30	5.416575905	5.6874047	5.277821241	5.555601307	5.833381372	5.516672798	5.807023998	6.097375198
May-30	5.460363595	5.733381775	5.380849334	5.664051931	5.947254527	5.581680089	5.875452726	6.169225362
Jun-30	5.352830584	5.620472113	5.295492304	5.574202425	5.852912546	5.482261632	5.770801718	6.059341804
Jul-30	5.224878147	5.486122054	5.105258419	5.37395623	5.642654042	5.320467698	5.600492313	5.880516929
Aug-30	5.073231983	5.326893582	4.953052426	5.213739395	5.474426365	5.192321644	5.46560173	5.738881817
Sep-30	5.157631334	5.4155129	5.083173634	5.350709089	5.618244543	5.309247099	5.588681157	5.868115215
Oct-30	5.480925233	5.754971495	5.322579135	5.602714879	5.882850623	5.595910882	5.890432508	6.184954133
Nov-30	5.639988937	5.921988383	5.481180203	5.769663371	6.05814654	5.773442805	6.077308215	6.381173626
Dec-30	5.752910108	6.040555614	5.485621306	5.774338217	6.063055127	5.816310593	6.122432203	6.428553813
Jan-31	5.326175028	5.59248378	5.06944228	5.336255032	5.603067784	5.418581174	5.703769657	5.988958139
Feb-31	5.321348121	5.587415527	5.063365186	5.329858091	5.596350995	5.418178765	5.703346069	5.988513372
Mar-31	4.959203148	5.207163305	4.801351674	5.054054394	5.306757114	5.021250207	5.285526533	5.54980286
Apr-31	5.134477332	5.391201198	5.011148338	5.274892988	5.538637637	5.252388411	5.528829906	5.805271401
May-31	5.1444776	5.40170148	5.082692678	5.350202818	5.617712959	5.28553174	5.563717621	5.841903502
Jun-31	5.043812733	5.29600337	5.004028378	5.267398293	5.530768208	5.1926654	5.465963579	5.739261758
Jul-31	4.98113661	5.23019344	4.8751202	5.131705473	5.388290747	5.092481572	5.360506917	5.628532263
Aug-31	4.810185874	5.050695168	4.704493442	4.95209836	5.199703279	4.946155353	5.206479319	5.466803285
Sep-31	4.829895472	5.071390245	4.773658804	5.024904004	5.276149204	5.001993004	5.265255794	5.528518583
Oct-31	5.118032198	5.373933808	4.978987754	5.241039741	5.503091728	5.255052819	5.531634546	5.808216273
Nov-31	5.298462893	5.563386038	5.157962369	5.429434073	5.700905776	5.453147597	5.740155365	6.027163133
Dec-31	5.418919618	5.689865599	5.168533907	5.440562008	5.712590108	5.502530087	5.792136934	6.081743781
Jan-32	5.380936779	5.649983617	5.121561703	5.391117582	5.660673461	5.474191986	5.762307353	6.050422721
Feb-32	5.376061602	5.644864682	5.115423838	5.384656672	5.653889505	5.473785553	5.761879529	6.049973506
Mar-32	5.01029518	5.260809939	4.850790191	5.106094938	5.361399685	5.072887709	5.339881799	5.606875889
Apr-32	5.187322105	5.44668821	5.062684822	5.329141918	5.595599013	5.306337295	5.585618205	5.864899115
May-32	5.197422376	5.457293494	5.134944604	5.405204847	5.675465089	5.339812058	5.620854798	5.901897537
Jun-32	5.095750861	5.350538404	5.055493662	5.321572276	5.58765089	5.246017054	5.522123215	5.798229375
Jul-32	5.032447976	5.284070374	4.925296402	5.184522528	5.443748655	5.144831387	5.415611987	5.686392586
Aug-32	4.859787733	5.10277712	4.752963377	5.003119344	5.253275311	4.997041907	5.260044112	5.523046318
Sep-32	4.879694426	5.123679148	4.822820392	5.076653044	5.330485696	5.053437934	5.319408352	5.585378769
Oct-32	5.17071252	5.429248146	5.030202632	5.294950138	5.559697645	5.309028347	5.588450891	5.867873436
Nov-32	5.352947522	5.620594899	5.210966993	5.485228413	5.759489834	5.509104073	5.799056919	6.089009765
Dec-32	5.474608814	5.748339255	5.221644246	5.496467628	5.771291009	5.558980388	5.851558303	6.144136218
Jan-33	5.436246146	5.708058454	5.17420232	5.446528758	5.718855196	5.530358905	5.821430427	6.112501948
Feb-33	5.431322218	5.702888329	5.168003076	5.440003238	5.7120034	5.529948408	5.820998325	6.112048241
Mar-33	5.061898131	5.314993038	4.900723093	5.158655887	5.416588682	5.125041586	5.394780617	5.664519647
Apr-33	5.240695326	5.502730092	5.11473667	5.383933337	5.653130004	5.360825668	5.642974387	5.925123106
May-33	5.250896599	5.513441429	5.18771905	5.460756895	5.73379474	5.394635178	5.678563346	5.962491513
Jun-33	5.148208369	5.405618788	5.107473599	5.376287999	5.645102399	5.299902224	5.578844447	5.857786669
Jul-33	5.084272455	5.338486078	4.975974366	5.237867753	5.499761141	5.197704701	5.471268107	5.744831512
Aug-33	4.90988561	5.155379891	4.801918011	5.054650538	5.307383064	5.048437326	5.314144553	5.579851781
Sep-33	4.929991371	5.176490939	4.872473596	5.128919575	5.385365553	5.105397313	5.374102435	5.642807557
Oct-33	5.223919646	5.485115628	5.081929658	5.34939964	5.616869622	5.36354363	5.6458354	5.92812717
Nov-33	5.407976998	5.678375848	5.264501662	5.541580697	5.818659732	5.565620113	5.858547488	6.151474862
Dec-33	5.530854903	5.807397648	5.275285689	5.552932304	5.830578919	5.615995192	5.911573886	6.207152581

Data Item	Area	Scenario	Draw	Month	2012	2013	2014	2015	2016	2017	2018	2019
Peak Day M	Zone 10	2925-2012	0	Nov	-3.048893	-3.652112	-3.74249	-3.646219	-3.423335	-3.202678	-3.019323	-2.89316
Peak Day M	Zone 10	2925-2012	0	Dec	-3.575315	-4.007257	-3.940447	-3.793991	-3.543361	-3.294823	-3.131081	-2.967487
Peak Day M	Zone 10	2925-2012	0	Jan	-3.236205	-3.561319	-3.861422	-3.980058	-3.773036	-3.506995	-3.266619	-3.092604
Peak Day M	Zone 10	2925-2012	0	Feb	-2.864792	-3.525783	-3.888036	-4.018481	-3.747471	-3.500624	-3.283348	-3.111065
Peak Day M	Zone 10	2925-2012	0	Mar	-2.626653	-3.375013	-3.620755	-3.854612	-3.419487	-3.142657	-2.945937	-3.016896
Peak Day M	Zone 10	2925-2012	0	Apr	-2.455313	-3.30476	-3.491273	-3.619859	-3.3387	-3.099944	-2.896442	-2.861434
Peak Day M	Zone 10	2925-2012	0	May	-1.980674	-3.298306	-3.435821	-3.539922	-3.245493	-2.987417	-2.786197	-2.765667
Peak Day M	Zone 10	2925-2012	0	Jun	-2.694735	-3.304389	-3.417439	-3.461739	-3.156371	-2.902035	-2.692681	-2.659064
Peak Day M	Zone 10	2925-2012	0	Jul	-2.470053	-3.269375	-3.390402	-3.461765	-3.100222	-2.864868	-2.664662	-2.596237
Peak Day M	Zone 10	2925-2012	0	Aug	-2.577906	-3.291034	-3.409837	-3.488101	-3.116805	-2.82988	-2.667288	-2.570511
Peak Day M	Zone 10	2925-2012	0	Sep	-2.58042	-3.318707	-3.448887	-3.524171	-3.145516	-2.860655	-2.695714	-2.596769
Peak Day M	Zone 10	2925-2012	0	Oct	-2.72702	-3.345898	-3.479483	-3.381324	-3.231325	-2.997211	-2.778685	-2.715255
Peak Day M	Zone 10	2925-2012	49	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 10	2925-2012	49	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day	Zone 10	2925-2012	49	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day	Zone 10	2925-2012	49	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day	Zone 10	2925-2012	49	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day	Zone 10	2925-2012	49	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 10	2925-2012	49	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 10	2925-2012	49	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 10	2925-2012	49	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 10	2925-2012	49	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 10	2925-2012	49	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 10	2925-2012	49	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 10	2925-2012	50	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 10	2925-2012	50	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 10	2925-2012	50	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 10	2925-2012	50	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 10	2925-2012	50	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 10	2925-2012	50	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 10	2925-2012	50	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 10	2925-2012	50	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 10	2925-2012	50	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 10	2925-2012	50	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 10	2925-2012	50	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 10	2925-2012	50	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 10	2925-2012	51	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 10	2925-2012	51	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 10	2925-2012	51	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 10	2925-2012	51	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 10	2925-2012	51	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 10	2925-2012	51	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 10	2925-2012	51	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 10	2925-2012	51	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 10	2925-2012	51	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 10	2925-2012	51	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 10	2925-2012	51	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 10	2925-2012	51	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 10	2925-2012	52	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 10	2925-2012	52	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 10	2925-2012	52	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 10	2925-2012	52	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 10	2925-2012	52	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 10	2925-2012	52	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 10	2925-2012	52	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 10	2925-2012	52	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 10	2925-2012	52	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883

Data Item	Area	Scenario	Draw	Month	2020	2021	2022	2023	2024	2025	2026	2027
Peak Day M	Zone 10	2925-2012	0	Nov	-2.737523	-2.597935	-2.581686	-2.444508	-2.282069	-2.126406	-2.027925	-1.951069
Peak Day M	Zone 10	2925-2012	0	Dec	-2.767154	-2.653279	-2.596301	-2.457087	-2.399725	-2.356419	-2.243113	-2.118465
Peak Day M	Zone 10	2925-2012	0	Jan	-2.945346	-2.770895	-2.717781	-2.561596	-2.398068	-2.18926	-2.093122	-2.002255
Peak Day M	Zone 10	2925-2012	0	Feb	-2.930659	-2.736642	-2.692214	-2.541847	-2.378705	-2.166268	-2.073763	-1.988643
Peak Day M	Zone 10	2925-2012	0	Mar	-2.849409	-2.699407	-2.620147	-2.489587	-2.300084	-2.079034	-2.02748	-1.957583
Peak Day M	Zone 10	2925-2012	0	Apr	-2.676902	-2.474426	-2.457475	-2.315404	-2.165849	-2.004201	-1.983212	-1.888994
Peak Day M	Zone 10	2925-2012	0	May	-2.56704	-2.386981	-2.403818	-2.263695	-2.144239	-1.963935	-1.950959	-1.856319
Peak Day M	Zone 10	2925-2012	0	Jun	-2.484988	-2.305326	-2.336629	-2.202555	-2.064382	-1.912594	-1.90218	-1.812441
Peak Day M	Zone 10	2925-2012	0	Jul	-2.426839	-2.241076	-2.243247	-2.104025	-1.996607	-1.842884	-1.831215	-1.75152
Peak Day M	Zone 10	2925-2012	0	Aug	-2.423896	-2.226254	-2.210093	-2.071382	-1.954948	-1.786355	-1.784335	-1.709905
Peak Day M	Zone 10	2925-2012	0	Sep	-2.45746	-2.25162	-2.251106	-2.109663	-1.982255	-1.802663	-1.805104	-1.729373
Peak Day M	Zone 10	2925-2012	0	Oct	-2.562388	-2.371945	-2.408017	-2.261941	-2.133762	-2.043387	-1.949026	-1.891785
Peak Day M	Zone 10	2925-2012	49	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 10	2925-2012	49	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day	Zone 10	2925-2012	49	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day	Zone 10	2925-2012	49	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day	Zone 10	2925-2012	49	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day	Zone 10	2925-2012	49	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 10	2925-2012	49	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 10	2925-2012	49	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 10	2925-2012	49	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 10	2925-2012	49	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 10	2925-2012	49	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 10	2925-2012	49	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 10	2925-2012	50	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 10	2925-2012	50	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone 10	2925-2012	50	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 10	2925-2012	50	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 10	2925-2012	50	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 10	2925-2012	50	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 10	2925-2012	50	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 10	2925-2012	50	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 10	2925-2012	50	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 10	2925-2012	50	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 10	2925-2012	50	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 10	2925-2012	50	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 10	2925-2012	51	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 10	2925-2012	51	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone 10	2925-2012	51	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 10	2925-2012	51	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 10	2925-2012	51	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 10	2925-2012	51	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 10	2925-2012	51	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 10	2925-2012	51	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 10	2925-2012	51	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 10	2925-2012	51	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 10	2925-2012	51	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 10	2925-2012	51	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 10	2925-2012	52	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 10	2925-2012	52	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone 10	2925-2012	52	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 10	2925-2012	52	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 10	2925-2012	52	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 10	2925-2012	52	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 10	2925-2012	52	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 10	2925-2012	52	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 10	2925-2012	52	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329

Data Item	Area	Scenario	Draw	Month	2028	2029	2030	2031	2032	2033
Peak Day M	Zone 10	2925-2012	0	Nov	-1.830486	-1.67573	-1.582059	-1.382952	-1.290126	
Peak Day M	Zone 10	2925-2012	0	Dec	-1.971679	-1.939226	-2.072682	-3.611392	-2.556771	
Peak Day M	Zone 10	2925-2012	0	Jan	-1.893229	-1.768582	-1.654259	-1.479103	-1.379823	-1.287207
Peak Day M	Zone 10	2925-2012	0	Feb	-1.874768	-1.728669	-1.638874	-1.468179	-1.369632	-1.277701
Peak Day M	Zone 10	2925-2012	0	Mar	-1.81595	-1.633285	-1.547157	-1.354807	-1.263865	-1.179028
Peak Day M	Zone 10	2925-2012	0	Apr	-1.751791	-1.602953	-1.53038	-1.345223	-1.255336	
Peak Day M	Zone 10	2925-2012	0	May	-1.727504	-1.577991	-1.457462	-1.269781	-1.184722	
Peak Day M	Zone 10	2925-2012	0	Jun	-1.685114	-1.520937	-1.406173	-1.224893	-1.154329	
Peak Day M	Zone 10	2925-2012	0	Jul	-1.611617	-1.45742	-1.36396	-1.201912	-1.121465	
Peak Day M	Zone 10	2925-2012	0	Aug	-1.572939	-1.410726	-1.329369	-1.157458	-1.079976	
Peak Day M	Zone 10	2925-2012	0	Sep	-1.585792	-1.422597	-1.340335	-1.162466	-1.084602	
Peak Day M	Zone 10	2925-2012	0	Oct	-1.784943	-1.609928	-1.533323	-1.332236	-1.242811	
Peak Day M	Zone 10	2925-2012	49	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 10	2925-2012	49	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day	Zone 10	2925-2012	49	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day	Zone 10	2925-2012	49	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day	Zone 10	2925-2012	49	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day	Zone 10	2925-2012	49	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 10	2925-2012	49	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 10	2925-2012	49	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 10	2925-2012	49	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 10	2925-2012	49	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 10	2925-2012	49	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 10	2925-2012	49	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 10	2925-2012	50	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 10	2925-2012	50	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone 10	2925-2012	50	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 10	2925-2012	50	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 10	2925-2012	50	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 10	2925-2012	50	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 10	2925-2012	50	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 10	2925-2012	50	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 10	2925-2012	50	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 10	2925-2012	50	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 10	2925-2012	50	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 10	2925-2012	50	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 10	2925-2012	51	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 10	2925-2012	51	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone 10	2925-2012	51	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 10	2925-2012	51	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 10	2925-2012	51	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 10	2925-2012	51	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 10	2925-2012	51	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 10	2925-2012	51	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 10	2925-2012	51	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 10	2925-2012	51	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 10	2925-2012	51	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 10	2925-2012	51	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 10	2925-2012	52	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 10	2925-2012	52	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone 10	2925-2012	52	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 10	2925-2012	52	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 10	2925-2012	52	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 10	2925-2012	52	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 10	2925-2012	52	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 10	2925-2012	52	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 10	2925-2012	52	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	

Data Item	Area	Scenario	Draw	Month	2012	2013	2014	2015	2016	2017	2018	2019
Peak Day M	Zone 10	2925-2012	52	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 10	2925-2012	52	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 10	2925-2012	52	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 10	2925-2012	53	Nov	-3.246098	-3.840157	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 10	2925-2012	53	Dec	-3.494101	-4.137303	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 10	2925-2012	53	Jan	-3.236205	-3.430731	-4.176443	-4.618098	-4.663178	-4.717219	-4.841214	-4.866403
Peak Day M	Zone 10	2925-2012	53	Feb	-2.864792	-3.460157	-4.10851	-4.647524	-4.692605	-4.686293	-4.807002	-4.910753
Peak Day M	Zone 10	2925-2012	53	Mar	-2.626653	-3.375013	-3.965561	-4.518481	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 10	2925-2012	53	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 10	2925-2012	53	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 10	2925-2012	53	Jun	-2.694735	-3.306425	-3.74904	-4.118367	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 10	2925-2012	53	Jul	-2.470053	-3.334913	-3.761162	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 10	2925-2012	53	Aug	-2.577906	-3.363402	-3.782681	-4.197859	-4.034961	-3.991667	-4.070797	-4.249651
Peak Day M	Zone 10	2925-2012	53	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.078371	-4.059129	-4.114207	-4.304532
Peak Day M	Zone 10	2925-2012	53	Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 10	2925-2012	54	Nov	-3.048893	-3.825197	-4.287353	-4.476101	-4.549675	-4.608058	-4.703142	-4.887862
Peak Day M	Zone 10	2925-2012	54	Dec	-3.371432	-3.991424	-4.497817	-4.661294	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 10	2925-2012	54	Jan	-3.158363	-3.760866	-4.176443	-4.707812	-4.693467	-4.702324	-4.841214	-4.957907
Peak Day M	Zone 10	2925-2012	54	Feb	-2.864792	-3.525783	-4.153922	-4.6714	-4.6738	-4.686745	-4.807002	-4.943175
Peak Day M	Zone 10	2925-2012	54	Mar	-2.626653	-3.472158	-4.047773	-4.538951	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 10	2925-2012	54	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 10	2925-2012	54	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 10	2925-2012	54	Jun	-2.694735	-3.306396	-3.74904	-4.118339	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 10	2925-2012	54	Jul	-2.470053	-3.334913	-3.761141	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 10	2925-2012	54	Aug	-2.577906	-3.363431	-3.782681	-4.197859	-4.034961	-3.991667	-4.070825	-4.249651
Peak Day M	Zone 10	2925-2012	54	Sep	-2.58042	-3.406841	-3.826091	-4.233675	-4.078371	-4.059129	-4.114235	-4.304532
Peak Day M	Zone 10	2925-2012	54	Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 11	2925-2012	0	Nov	-3.048893	-3.652112	-3.74249	-3.646219	-3.423335	-3.202678	-3.019323	-2.89316
Peak Day M	Zone 11	2925-2012	0	Dec	-3.575315	-4.007257	-3.940447	-3.793991	-3.543361	-3.294823	-3.131081	-2.967487
Peak Day M	Zone 11	2925-2012	0	Jan	-3.236205	-3.561319	-3.861422	-3.980058	-3.773036	-3.506995	-3.266619	-3.092604
Peak Day M	Zone 11	2925-2012	0	Feb	-2.864792	-3.525783	-3.888036	-4.018481	-3.747471	-3.500624	-3.283348	-3.111065
Peak Day M	Zone 11	2925-2012	0	Mar	-2.626653	-3.375013	-3.620755	-3.854612	-3.419487	-3.142657	-2.945937	-3.016896
Peak Day M	Zone 11	2925-2012	0	Apr	-2.455313	-3.30476	-3.491273	-3.619859	-3.3387	-3.099944	-2.896442	-2.861434
Peak Day M	Zone 11	2925-2012	0	May	-1.980674	-3.298306	-3.435821	-3.539922	-3.245493	-2.987417	-2.786197	-2.765667
Peak Day M	Zone 11	2925-2012	0	Jun	-2.694735	-3.304389	-3.417439	-3.461739	-3.156371	-2.902035	-2.692681	-2.659064
Peak Day M	Zone 11	2925-2012	0	Jul	-2.470053	-3.269375	-3.390402	-3.461765	-3.100222	-2.864868	-2.664662	-2.596237
Peak Day M	Zone 11	2925-2012	0	Aug	-2.577906	-3.291034	-3.409837	-3.488101	-3.116805	-2.82988	-2.667288	-2.570511
Peak Day M	Zone 11	2925-2012	0	Sep	-2.58042	-3.318707	-3.448887	-3.524171	-3.145516	-2.860655	-2.695714	-2.596769
Peak Day M	Zone 11	2925-2012	0	Oct	-2.72702	-3.345898	-3.479483	-3.381324	-3.231325	-2.997211	-2.778685	-2.715255
Peak Day M	Zone 11	2925-2012	49	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 11	2925-2012	49	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 11	2925-2012	49	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 11	2925-2012	49	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 11	2925-2012	49	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 11	2925-2012	49	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 11	2925-2012	49	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 11	2925-2012	49	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 11	2925-2012	49	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 11	2925-2012	49	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 11	2925-2012	49	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 11	2925-2012	49	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 11	2925-2012	50	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 11	2925-2012	50	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 11	2925-2012	50	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 11	2925-2012	50	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 11	2925-2012	50	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 11	2925-2012	50	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086

Data Item	Area	Scenario	Draw	Month	2020	2021	2022	2023	2024	2025	2026	2027
Peak Day M	Zone 10	2925-2012	52	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 10	2925-2012	52	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 10	2925-2012	52	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 10	2925-2012	53	Nov	-5.034245	-5.134853	-5.536729	-5.685599	-5.746446	-5.741707	-5.961017	-6.175377
Peak Day M	Zone 10	2925-2012	53	Dec	-5.085482	-5.259947	-5.592441	-5.729815	-5.790661	-5.785602	-6.00531	-6.204803
Peak Day M	Zone 10	2925-2012	53	Jan	-5.053628	-5.126154	-5.358524	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 10	2925-2012	53	Feb	-5.041223	-5.096388	-5.38795	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 10	2925-2012	53	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 10	2925-2012	53	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356
Peak Day M	Zone 10	2925-2012	53	May	-4.504243	-4.534317	-4.943542	-5.039975	-5.116632	-5.124897	-5.511628	-5.677511
Peak Day M	Zone 10	2925-2012	53	Jun	-4.389208	-4.408269	-4.837258	-4.987371	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 10	2925-2012	53	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 10	2925-2012	53	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 10	2925-2012	53	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.431068
Peak Day M	Zone 10	2925-2012	53	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.231716	-5.246173	-5.610445	-5.980553
Peak Day M	Zone 10	2925-2012	54	Nov	-4.997856	-5.134853	-5.550738	-5.650587	-5.71944	-5.741387	-5.961017	-6.160453
Peak Day M	Zone 10	2925-2012	54	Dec	-5.034237	-5.177797	-5.592441	-5.694802	-5.76379	-5.785602	-6.00531	-6.204803
Peak Day M	Zone 10	2925-2012	54	Jan	-4.976563	-5.063692	-5.443269	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 10	2925-2012	54	Feb	-5.006018	-5.096388	-5.42785	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 10	2925-2012	54	Mar	-4.93399	-5.081712	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 10	2925-2012	54	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356
Peak Day M	Zone 10	2925-2012	54	May	-4.504243	-4.534317	-4.943542	-5.039975	-5.168415	-5.124897	-5.565177	-5.731803
Peak Day M	Zone 10	2925-2012	54	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 10	2925-2012	54	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 10	2925-2012	54	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 10	2925-2012	54	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 10	2925-2012	54	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.217933	-5.225263	-5.610445	-5.980553
Peak Day M	Zone 11	2925-2012	0	Nov	-2.737523	-2.597935	-2.581686	-2.444508	-2.282069	-2.126406	-2.027925	-1.951069
Peak Day M	Zone 11	2925-2012	0	Dec	-2.767154	-2.653279	-2.596301	-2.457087	-2.399725	-2.356419	-2.243113	-2.118465
Peak Day M	Zone 11	2925-2012	0	Jan	-2.945346	-2.770895	-2.717781	-2.561596	-2.398068	-2.18926	-2.093122	-2.002255
Peak Day M	Zone 11	2925-2012	0	Feb	-2.930659	-2.736642	-2.692214	-2.541847	-2.378705	-2.166268	-2.073763	-1.988643
Peak Day M	Zone 11	2925-2012	0	Mar	-2.849409	-2.699407	-2.620147	-2.489587	-2.300084	-2.079034	-2.02748	-1.957583
Peak Day M	Zone 11	2925-2012	0	Apr	-2.676902	-2.474426	-2.457475	-2.315404	-2.165849	-2.004201	-1.983212	-1.888994
Peak Day M	Zone 11	2925-2012	0	May	-2.56704	-2.386981	-2.403818	-2.263695	-2.144239	-1.963935	-1.950959	-1.856319
Peak Day M	Zone 11	2925-2012	0	Jun	-2.484988	-2.305326	-2.336629	-2.202555	-2.064382	-1.912594	-1.90218	-1.812441
Peak Day M	Zone 11	2925-2012	0	Jul	-2.426839	-2.241076	-2.243247	-2.104025	-1.996607	-1.842884	-1.831215	-1.75152
Peak Day M	Zone 11	2925-2012	0	Aug	-2.423896	-2.226254	-2.210093	-2.071382	-1.954948	-1.786355	-1.784335	-1.709905
Peak Day M	Zone 11	2925-2012	0	Sep	-2.45746	-2.25162	-2.251106	-2.109663	-1.982255	-1.802663	-1.805104	-1.729373
Peak Day M	Zone 11	2925-2012	0	Oct	-2.562388	-2.371945	-2.408017	-2.261941	-2.133762	-2.043387	-1.949026	-1.891785
Peak Day M	Zone 11	2925-2012	49	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 11	2925-2012	49	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone 11	2925-2012	49	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 11	2925-2012	49	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 11	2925-2012	49	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 11	2925-2012	49	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 11	2925-2012	49	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 11	2925-2012	49	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 11	2925-2012	49	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 11	2925-2012	49	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 11	2925-2012	49	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 11	2925-2012	49	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 11	2925-2012	50	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 11	2925-2012	50	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone 11	2925-2012	50	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 11	2925-2012	50	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 11	2925-2012	50	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 11	2925-2012	50	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356

Data Item	Area	Scenario	Draw	Month	2028	2029	2030	2031	2032	2033
Peak Day M	Zone 10	2925-2012	52	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 10	2925-2012	52	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 10	2925-2012	52	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 10	2925-2012	53	Nov	-6.293158	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 10	2925-2012	53	Dec	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Peak Day M	Zone 10	2925-2012	53	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 10	2925-2012	53	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 10	2925-2012	53	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 10	2925-2012	53	Apr	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
Peak Day M	Zone 10	2925-2012	53	May	-5.720028	-5.602667	-5.64501	-5.334939	-5.388783	
Peak Day M	Zone 10	2925-2012	53	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 10	2925-2012	53	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 10	2925-2012	53	Aug	-5.31263	-5.158387	-5.262483	-4.993495	-5.044139	
Peak Day M	Zone 10	2925-2012	53	Sep	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Peak Day M	Zone 10	2925-2012	53	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 10	2925-2012	54	Nov	-6.278368	-6.250198	-6.388315	-6.054121	-6.105807	
Peak Day M	Zone 10	2925-2012	54	Dec	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Peak Day M	Zone 10	2925-2012	54	Jan	-6.105078	-6.174288	-6.252287	-6.77634	-6.112323	-6.173127
Peak Day M	Zone 10	2925-2012	54	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 10	2925-2012	54	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 10	2925-2012	54	Apr	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
Peak Day M	Zone 10	2925-2012	54	May	-5.720028	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 10	2925-2012	54	Jun	-5.6167	-5.488288	-5.493362	-5.232564	-5.285384	
Peak Day M	Zone 10	2925-2012	54	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 10	2925-2012	54	Aug	-5.31263	-5.158387	-5.262483	-4.993474	-5.037141	
Peak Day M	Zone 10	2925-2012	54	Sep	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Peak Day M	Zone 10	2925-2012	54	Oct	-5.757933	-5.726967	-5.85954	-5.785563	-5.640032	
Peak Day M	Zone 11	2925-2012	0	Nov	-1.830486	-1.67573	-1.582059	-1.382952	-1.290126	
Peak Day M	Zone 11	2925-2012	0	Dec	-1.971679	-1.939226	-2.072682	-3.611392	-2.556771	
Peak Day M	Zone 11	2925-2012	0	Jan	-1.893229	-1.768582	-1.654259	-1.479103	-1.379823	-1.287207
Peak Day M	Zone 11	2925-2012	0	Feb	-1.874768	-1.728669	-1.638874	-1.468179	-1.369632	-1.277701
Peak Day M	Zone 11	2925-2012	0	Mar	-1.81595	-1.633285	-1.547157	-1.354807	-1.263865	-1.179028
Peak Day M	Zone 11	2925-2012	0	Apr	-1.751791	-1.602953	-1.53038	-1.345223	-1.255336	
Peak Day M	Zone 11	2925-2012	0	May	-1.727504	-1.577991	-1.457462	-1.269781	-1.184722	
Peak Day M	Zone 11	2925-2012	0	Jun	-1.685114	-1.520937	-1.406173	-1.224893	-1.154329	
Peak Day M	Zone 11	2925-2012	0	Jul	-1.611617	-1.45742	-1.36396	-1.201912	-1.121465	
Peak Day M	Zone 11	2925-2012	0	Aug	-1.572939	-1.410726	-1.329369	-1.157458	-1.079976	
Peak Day M	Zone 11	2925-2012	0	Sep	-1.585792	-1.422597	-1.340335	-1.162466	-1.084602	
Peak Day M	Zone 11	2925-2012	0	Oct	-1.784943	-1.609928	-1.533323	-1.332236	-1.242811	
Peak Day M	Zone 11	2925-2012	49	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 11	2925-2012	49	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone 11	2925-2012	49	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 11	2925-2012	49	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 11	2925-2012	49	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 11	2925-2012	49	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 11	2925-2012	49	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 11	2925-2012	49	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 11	2925-2012	49	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 11	2925-2012	49	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 11	2925-2012	49	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 11	2925-2012	49	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 11	2925-2012	50	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 11	2925-2012	50	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone 11	2925-2012	50	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 11	2925-2012	50	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 11	2925-2012	50	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 11	2925-2012	50	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	

Data Item	Area	Scenario	Draw	Month	2012	2013	2014	2015	2016	2017	2018	2019
Peak Day M	Zone 11	2925-2012	50	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 11	2925-2012	50	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 11	2925-2012	50	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 11	2925-2012	50	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 11	2925-2012	50	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 11	2925-2012	50	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 11	2925-2012	51	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 11	2925-2012	51	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 11	2925-2012	51	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 11	2925-2012	51	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 11	2925-2012	51	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 11	2925-2012	51	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 11	2925-2012	51	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 11	2925-2012	51	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 11	2925-2012	51	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 11	2925-2012	51	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 11	2925-2012	51	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 11	2925-2012	51	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 11	2925-2012	52	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 11	2925-2012	52	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 11	2925-2012	52	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 11	2925-2012	52	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 11	2925-2012	52	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 11	2925-2012	52	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 11	2925-2012	52	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 11	2925-2012	52	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 11	2925-2012	52	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 11	2925-2012	52	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 11	2925-2012	52	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 11	2925-2012	52	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 11	2925-2012	53	Nov	-3.246098	-3.840157	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 11	2925-2012	53	Dec	-3.494101	-4.137303	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 11	2925-2012	53	Jan	-3.236205	-3.430731	-4.176443	-4.618098	-4.663178	-4.717219	-4.841214	-4.866403
Peak Day M	Zone 11	2925-2012	53	Feb	-2.864792	-3.460157	-4.10851	-4.647524	-4.692605	-4.686293	-4.807002	-4.910753
Peak Day M	Zone 11	2925-2012	53	Mar	-2.626653	-3.375013	-3.965561	-4.518481	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 11	2925-2012	53	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 11	2925-2012	53	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 11	2925-2012	53	Jun	-2.694735	-3.306425	-3.74904	-4.118367	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 11	2925-2012	53	Jul	-2.470053	-3.334913	-3.761162	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 11	2925-2012	53	Aug	-2.577906	-3.363402	-3.782681	-4.197859	-4.034961	-3.991667	-4.070797	-4.249651
Peak Day M	Zone 11	2925-2012	53	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.078371	-4.059129	-4.114207	-4.304532
Peak Day M	Zone 11	2925-2012	53	Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 11	2925-2012	54	Nov	-3.048893	-3.825197	-4.287353	-4.476101	-4.549675	-4.608058	-4.703142	-4.887862
Peak Day M	Zone 11	2925-2012	54	Dec	-3.371432	-3.991424	-4.497817	-4.661294	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 11	2925-2012	54	Jan	-3.158363	-3.760866	-4.176443	-4.707812	-4.693467	-4.702324	-4.841214	-4.957907
Peak Day M	Zone 11	2925-2012	54	Feb	-2.864792	-3.525783	-4.153922	-4.6714	-4.6738	-4.686745	-4.807002	-4.943175
Peak Day M	Zone 11	2925-2012	54	Mar	-2.626653	-3.472158	-4.047773	-4.538951	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 11	2925-2012	54	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 11	2925-2012	54	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 11	2925-2012	54	Jun	-2.694735	-3.306396	-3.74904	-4.118339	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 11	2925-2012	54	Jul	-2.470053	-3.334913	-3.761141	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 11	2925-2012	54	Aug	-2.577906	-3.363431	-3.782681	-4.197859	-4.034961	-3.991667	-4.070825	-4.249651
Peak Day M	Zone 11	2925-2012	54	Sep	-2.58042	-3.406841	-3.826091	-4.233675	-4.078371	-4.059129	-4.114235	-4.304532
Peak Day M	Zone 11	2925-2012	54	Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 20	2925-2012	0	Nov	-3.048893	-3.652112	-3.74249	-3.646219	-3.423335	-3.202678	-3.019323	-2.89316
Peak Day M	Zone 20	2925-2012	0	Dec	-3.575315	-4.007257	-3.940447	-3.793991	-3.543361	-3.294823	-3.131081	-2.967487
Peak Day M	Zone 20	2925-2012	0	Jan	-3.236205	-3.561319	-3.861422	-3.980058	-3.773036	-3.506995	-3.266619	-3.092604

Data Item	Area	Scenario	Draw	Month	2020	2021	2022	2023	2024	2025	2026	2027
Peak Day M	Zone 11	2925-2012	50	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 11	2925-2012	50	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 11	2925-2012	50	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 11	2925-2012	50	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 11	2925-2012	50	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 11	2925-2012	50	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 11	2925-2012	51	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 11	2925-2012	51	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone 11	2925-2012	51	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 11	2925-2012	51	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 11	2925-2012	51	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 11	2925-2012	51	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 11	2925-2012	51	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 11	2925-2012	51	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 11	2925-2012	51	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 11	2925-2012	51	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 11	2925-2012	51	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 11	2925-2012	51	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 11	2925-2012	52	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 11	2925-2012	52	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone 11	2925-2012	52	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 11	2925-2012	52	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 11	2925-2012	52	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 11	2925-2012	52	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 11	2925-2012	52	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 11	2925-2012	52	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 11	2925-2012	52	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 11	2925-2012	52	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 11	2925-2012	52	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 11	2925-2012	52	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 11	2925-2012	53	Nov	-5.034245	-5.134853	-5.536729	-5.685599	-5.746446	-5.741707	-5.961017	-6.175377
Peak Day M	Zone 11	2925-2012	53	Dec	-5.085482	-5.259947	-5.592441	-5.729815	-5.790661	-5.785602	-6.00531	-6.204803
Peak Day M	Zone 11	2925-2012	53	Jan	-5.053628	-5.126154	-5.358524	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 11	2925-2012	53	Feb	-5.041223	-5.096388	-5.38795	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 11	2925-2012	53	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 11	2925-2012	53	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356
Peak Day M	Zone 11	2925-2012	53	May	-4.504243	-4.534317	-4.943542	-5.039975	-5.116632	-5.124897	-5.511628	-5.677511
Peak Day M	Zone 11	2925-2012	53	Jun	-4.389208	-4.408269	-4.837258	-4.987371	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 11	2925-2012	53	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 11	2925-2012	53	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 11	2925-2012	53	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.431068
Peak Day M	Zone 11	2925-2012	53	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.231716	-5.246173	-5.610445	-5.980553
Peak Day M	Zone 11	2925-2012	54	Nov	-4.997856	-5.134853	-5.550738	-5.650587	-5.71944	-5.741387	-5.961017	-6.160453
Peak Day M	Zone 11	2925-2012	54	Dec	-5.034237	-5.177797	-5.592441	-5.694802	-5.76379	-5.785602	-6.00531	-6.204803
Peak Day M	Zone 11	2925-2012	54	Jan	-4.976563	-5.063692	-5.443269	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 11	2925-2012	54	Feb	-5.006018	-5.096388	-5.42785	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 11	2925-2012	54	Mar	-4.93399	-5.081712	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 11	2925-2012	54	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356
Peak Day M	Zone 11	2925-2012	54	May	-4.504243	-4.534317	-4.943542	-5.039975	-5.168415	-5.124897	-5.565177	-5.731803
Peak Day M	Zone 11	2925-2012	54	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 11	2925-2012	54	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 11	2925-2012	54	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 11	2925-2012	54	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 11	2925-2012	54	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.217933	-5.225263	-5.610445	-5.980553
Peak Day M	Zone 20	2925-2012	0	Nov	-2.737523	-2.597935	-2.581686	-2.444508	-2.282069	-2.126406	-2.027925	-1.951069
Peak Day M	Zone 20	2925-2012	0	Dec	-2.767154	-2.653279	-2.596301	-2.457087	-2.399725	-2.356419	-2.243113	-2.118465
Peak Day M	Zone 20	2925-2012	0	Jan	-2.945346	-2.770895	-2.717781	-2.561596	-2.398068	-2.18926	-2.093122	-2.002255

Data Item	Area	Scenario	Draw	Month	2028	2029	2030	2031	2032	2033
Peak Day M	Zone 11	2925-2012	50	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 11	2925-2012	50	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 11	2925-2012	50	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 11	2925-2012	50	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 11	2925-2012	50	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 11	2925-2012	50	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 11	2925-2012	51	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 11	2925-2012	51	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone 11	2925-2012	51	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 11	2925-2012	51	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 11	2925-2012	51	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 11	2925-2012	51	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 11	2925-2012	51	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 11	2925-2012	51	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 11	2925-2012	51	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 11	2925-2012	51	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 11	2925-2012	51	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 11	2925-2012	51	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 11	2925-2012	52	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 11	2925-2012	52	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone 11	2925-2012	52	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 11	2925-2012	52	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 11	2925-2012	52	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 11	2925-2012	52	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 11	2925-2012	52	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 11	2925-2012	52	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 11	2925-2012	52	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 11	2925-2012	52	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 11	2925-2012	52	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 11	2925-2012	52	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 11	2925-2012	53	Nov	-6.293158	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 11	2925-2012	53	Dec	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Peak Day M	Zone 11	2925-2012	53	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 11	2925-2012	53	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 11	2925-2012	53	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 11	2925-2012	53	Apr	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
Peak Day M	Zone 11	2925-2012	53	May	-5.720028	-5.602667	-5.64501	-5.334939	-5.388783	
Peak Day M	Zone 11	2925-2012	53	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 11	2925-2012	53	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 11	2925-2012	53	Aug	-5.31263	-5.158387	-5.262483	-4.993495	-5.044139	
Peak Day M	Zone 11	2925-2012	53	Sep	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Peak Day M	Zone 11	2925-2012	53	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 11	2925-2012	54	Nov	-6.278368	-6.250198	-6.388315	-6.054121	-6.105807	
Peak Day M	Zone 11	2925-2012	54	Dec	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Peak Day M	Zone 11	2925-2012	54	Jan	-6.105078	-6.174288	-6.252287	-6.77634	-6.112323	-6.173127
Peak Day M	Zone 11	2925-2012	54	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 11	2925-2012	54	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 11	2925-2012	54	Apr	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
Peak Day M	Zone 11	2925-2012	54	May	-5.720028	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 11	2925-2012	54	Jun	-5.6167	-5.488288	-5.493362	-5.232564	-5.285384	
Peak Day M	Zone 11	2925-2012	54	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 11	2925-2012	54	Aug	-5.31263	-5.158387	-5.262483	-4.993474	-5.037141	
Peak Day M	Zone 11	2925-2012	54	Sep	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Peak Day M	Zone 11	2925-2012	54	Oct	-5.757933	-5.726967	-5.85954	-5.785563	-5.640032	
Peak Day M	Zone 20	2925-2012	0	Nov	-1.830486	-1.67573	-1.582059	-1.382952	-1.290126	
Peak Day M	Zone 20	2925-2012	0	Dec	-1.971679	-1.939226	-2.072682	-3.611392	-2.556771	
Peak Day M	Zone 20	2925-2012	0	Jan	-1.893229	-1.768582	-1.654259	-1.479103	-1.379823	-1.287207

Data Item	Area	Scenario	Draw	Month	2012	2013	2014	2015	2016	2017	2018	2019
Peak Day M	Zone 20	2925-2012	0	Feb	-2.864792	-3.525783	-3.888036	-4.018481	-3.747471	-3.500624	-3.283348	-3.111065
Peak Day M	Zone 20	2925-2012	0	Mar	-2.626653	-3.375013	-3.620755	-3.854612	-3.419487	-3.142657	-2.945937	-3.016896
Peak Day M	Zone 20	2925-2012	0	Apr	-2.455313	-3.30476	-3.491273	-3.619859	-3.3387	-3.099944	-2.896442	-2.861434
Peak Day M	Zone 20	2925-2012	0	May	-1.980674	-3.298306	-3.435821	-3.539922	-3.245493	-2.987417	-2.786197	-2.765667
Peak Day M	Zone 20	2925-2012	0	Jun	-2.694735	-3.304389	-3.417439	-3.461739	-3.156371	-2.902035	-2.692681	-2.659064
Peak Day M	Zone 20	2925-2012	0	Jul	-2.470053	-3.269375	-3.390402	-3.461765	-3.100222	-2.864868	-2.664662	-2.596237
Peak Day M	Zone 20	2925-2012	0	Aug	-2.577906	-3.291034	-3.409837	-3.488101	-3.116805	-2.82988	-2.667288	-2.570511
Peak Day M	Zone 20	2925-2012	0	Sep	-2.58042	-3.318707	-3.448887	-3.524171	-3.145516	-2.860655	-2.695714	-2.596769
Peak Day M	Zone 20	2925-2012	0	Oct	-2.72702	-3.345898	-3.479483	-3.381324	-3.231325	-2.997211	-2.778685	-2.715255
Peak Day M	Zone 20	2925-2012	49	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 20	2925-2012	49	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 20	2925-2012	49	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 20	2925-2012	49	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 20	2925-2012	49	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 20	2925-2012	49	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 20	2925-2012	49	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 20	2925-2012	49	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 20	2925-2012	49	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 20	2925-2012	49	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 20	2925-2012	49	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 20	2925-2012	49	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 20	2925-2012	50	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 20	2925-2012	50	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 20	2925-2012	50	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 20	2925-2012	50	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 20	2925-2012	50	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 20	2925-2012	50	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 20	2925-2012	50	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 20	2925-2012	50	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 20	2925-2012	50	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 20	2925-2012	50	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 20	2925-2012	50	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 20	2925-2012	50	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 20	2925-2012	51	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 20	2925-2012	51	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 20	2925-2012	51	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 20	2925-2012	51	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 20	2925-2012	51	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 20	2925-2012	51	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 20	2925-2012	51	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 20	2925-2012	51	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 20	2925-2012	51	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 20	2925-2012	51	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 20	2925-2012	51	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 20	2925-2012	51	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 20	2925-2012	52	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 20	2925-2012	52	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 20	2925-2012	52	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 20	2925-2012	52	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 20	2925-2012	52	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 20	2925-2012	52	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 20	2925-2012	52	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 20	2925-2012	52	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 20	2925-2012	52	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 20	2925-2012	52	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 20	2925-2012	52	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 20	2925-2012	52	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728

Data Item	Area	Scenario	Draw	Month	2020	2021	2022	2023	2024	2025	2026	2027
Peak Day M	Zone 20	2925-2012	0	Feb	-2.930659	-2.736642	-2.692214	-2.541847	-2.378705	-2.166268	-2.073763	-1.988643
Peak Day M	Zone 20	2925-2012	0	Mar	-2.849409	-2.699407	-2.620147	-2.489587	-2.300084	-2.079034	-2.02748	-1.957583
Peak Day M	Zone 20	2925-2012	0	Apr	-2.676902	-2.474426	-2.457475	-2.315404	-2.165849	-2.004201	-1.983212	-1.888994
Peak Day M	Zone 20	2925-2012	0	May	-2.56704	-2.386981	-2.403818	-2.263695	-2.144239	-1.963935	-1.950959	-1.856319
Peak Day M	Zone 20	2925-2012	0	Jun	-2.484988	-2.305326	-2.336629	-2.202555	-2.064382	-1.912594	-1.90218	-1.812441
Peak Day M	Zone 20	2925-2012	0	Jul	-2.426839	-2.241076	-2.243247	-2.104025	-1.996607	-1.842884	-1.831215	-1.75152
Peak Day M	Zone 20	2925-2012	0	Aug	-2.423896	-2.226254	-2.210093	-2.071382	-1.954948	-1.786355	-1.784335	-1.709905
Peak Day M	Zone 20	2925-2012	0	Sep	-2.45746	-2.25162	-2.251106	-2.109663	-1.982255	-1.802663	-1.805104	-1.729373
Peak Day M	Zone 20	2925-2012	0	Oct	-2.562388	-2.371945	-2.408017	-2.261941	-2.133762	-2.043387	-1.949026	-1.891785
Peak Day M	Zone 20	2925-2012	49	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 20	2925-2012	49	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone 20	2925-2012	49	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 20	2925-2012	49	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 20	2925-2012	49	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 20	2925-2012	49	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 20	2925-2012	49	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 20	2925-2012	49	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 20	2925-2012	49	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 20	2925-2012	49	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 20	2925-2012	49	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 20	2925-2012	49	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 20	2925-2012	50	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 20	2925-2012	50	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone 20	2925-2012	50	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 20	2925-2012	50	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 20	2925-2012	50	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 20	2925-2012	50	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 20	2925-2012	50	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 20	2925-2012	50	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 20	2925-2012	50	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 20	2925-2012	50	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 20	2925-2012	50	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 20	2925-2012	50	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 20	2925-2012	51	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 20	2925-2012	51	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone 20	2925-2012	51	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 20	2925-2012	51	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 20	2925-2012	51	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 20	2925-2012	51	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 20	2925-2012	51	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 20	2925-2012	51	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 20	2925-2012	51	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 20	2925-2012	51	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 20	2925-2012	51	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 20	2925-2012	51	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 20	2925-2012	52	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 20	2925-2012	52	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone 20	2925-2012	52	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 20	2925-2012	52	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 20	2925-2012	52	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 20	2925-2012	52	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 20	2925-2012	52	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 20	2925-2012	52	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 20	2925-2012	52	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 20	2925-2012	52	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 20	2925-2012	52	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 20	2925-2012	52	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553

Data Item	Area	Scenario	Draw	Month	2028	2029	2030	2031	2032	2033
Peak Day M	Zone 20	2925-2012	0	Feb	-1.874768	-1.728669	-1.638874	-1.468179	-1.369632	-1.277701
Peak Day M	Zone 20	2925-2012	0	Mar	-1.81595	-1.633285	-1.547157	-1.354807	-1.263865	-1.179028
Peak Day M	Zone 20	2925-2012	0	Apr	-1.751791	-1.602953	-1.53038	-1.345223	-1.255336	
Peak Day M	Zone 20	2925-2012	0	May	-1.727504	-1.577991	-1.457462	-1.269781	-1.184722	
Peak Day M	Zone 20	2925-2012	0	Jun	-1.685114	-1.520937	-1.406173	-1.224893	-1.154329	
Peak Day M	Zone 20	2925-2012	0	Jul	-1.611617	-1.45742	-1.36396	-1.201912	-1.121465	
Peak Day M	Zone 20	2925-2012	0	Aug	-1.572939	-1.410726	-1.329369	-1.157458	-1.079976	
Peak Day M	Zone 20	2925-2012	0	Sep	-1.585792	-1.422597	-1.340335	-1.162466	-1.084602	
Peak Day M	Zone 20	2925-2012	0	Oct	-1.784943	-1.609928	-1.533323	-1.332236	-1.242811	
Peak Day M	Zone 20	2925-2012	49	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 20	2925-2012	49	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone 20	2925-2012	49	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 20	2925-2012	49	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 20	2925-2012	49	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 20	2925-2012	49	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 20	2925-2012	49	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 20	2925-2012	49	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 20	2925-2012	49	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 20	2925-2012	49	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 20	2925-2012	49	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 20	2925-2012	49	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 20	2925-2012	50	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 20	2925-2012	50	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone 20	2925-2012	50	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 20	2925-2012	50	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 20	2925-2012	50	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 20	2925-2012	50	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 20	2925-2012	50	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 20	2925-2012	50	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 20	2925-2012	50	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 20	2925-2012	50	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 20	2925-2012	50	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 20	2925-2012	50	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 20	2925-2012	51	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 20	2925-2012	51	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone 20	2925-2012	51	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 20	2925-2012	51	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 20	2925-2012	51	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 20	2925-2012	51	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 20	2925-2012	51	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 20	2925-2012	51	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 20	2925-2012	51	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 20	2925-2012	51	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 20	2925-2012	51	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 20	2925-2012	51	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 20	2925-2012	52	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 20	2925-2012	52	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone 20	2925-2012	52	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 20	2925-2012	52	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 20	2925-2012	52	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 20	2925-2012	52	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 20	2925-2012	52	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 20	2925-2012	52	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 20	2925-2012	52	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 20	2925-2012	52	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 20	2925-2012	52	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 20	2925-2012	52	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	

Data Item	Area	Scenario	Draw	Month	2012	2013	2014	2015	2016	2017	2018	2019
Peak Day M	Zone 20	2925-2012	53	Nov	-3.246098	-3.840157	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 20	2925-2012	53	Dec	-3.494101	-4.137303	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 20	2925-2012	53	Jan	-3.236205	-3.430731	-4.176443	-4.618098	-4.663178	-4.717219	-4.841214	-4.866403
Peak Day M	Zone 20	2925-2012	53	Feb	-2.864792	-3.460157	-4.10851	-4.647524	-4.692605	-4.686293	-4.807002	-4.910753
Peak Day M	Zone 20	2925-2012	53	Mar	-2.626653	-3.375013	-3.965561	-4.518481	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 20	2925-2012	53	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 20	2925-2012	53	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 20	2925-2012	53	Jun	-2.694735	-3.306425	-3.74904	-4.118367	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 20	2925-2012	53	Jul	-2.470053	-3.334913	-3.761162	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 20	2925-2012	53	Aug	-2.577906	-3.363402	-3.782681	-4.197859	-4.034961	-3.991667	-4.070797	-4.249651
Peak Day M	Zone 20	2925-2012	53	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.078371	-4.059129	-4.114207	-4.304532
Peak Day M	Zone 20	2925-2012	53	Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 20	2925-2012	54	Nov	-3.048893	-3.825197	-4.287353	-4.476101	-4.549675	-4.608058	-4.703142	-4.887862
Peak Day M	Zone 20	2925-2012	54	Dec	-3.371432	-3.991424	-4.497817	-4.661294	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 20	2925-2012	54	Jan	-3.158363	-3.760866	-4.176443	-4.707812	-4.693467	-4.702324	-4.841214	-4.957907
Peak Day M	Zone 20	2925-2012	54	Feb	-2.864792	-3.525783	-4.153922	-4.6714	-4.6738	-4.686745	-4.807002	-4.943175
Peak Day M	Zone 20	2925-2012	54	Mar	-2.626653	-3.472158	-4.047773	-4.538951	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 20	2925-2012	54	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 20	2925-2012	54	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 20	2925-2012	54	Jun	-2.694735	-3.306396	-3.74904	-4.118339	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 20	2925-2012	54	Jul	-2.470053	-3.334913	-3.761141	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 20	2925-2012	54	Aug	-2.577906	-3.363431	-3.782681	-4.197859	-4.034961	-3.991667	-4.070825	-4.249651
Peak Day M	Zone 20	2925-2012	54	Sep	-2.58042	-3.406841	-3.826091	-4.233675	-4.078371	-4.059129	-4.114235	-4.304532
Peak Day M	Zone 20	2925-2012	54	Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 24	2925-2012	0	Nov	-3.048893	-3.652112	-3.74249	-3.646219	-3.423335	-3.202678	-3.019323	-2.89316
Peak Day M	Zone 24	2925-2012	0	Dec	-3.575315	-4.007257	-3.940447	-3.793991	-3.543361	-3.294823	-3.131081	-2.967487
Peak Day M	Zone 24	2925-2012	0	Jan	-3.236205	-3.561319	-3.861422	-3.980058	-3.773036	-3.506995	-3.266619	-3.092604
Peak Day M	Zone 24	2925-2012	0	Feb	-2.864792	-3.525783	-3.888036	-4.018481	-3.747471	-3.500624	-3.283348	-3.111065
Peak Day M	Zone 24	2925-2012	0	Mar	-2.626653	-3.375013	-3.620755	-3.854612	-3.419487	-3.142657	-2.945937	-3.016896
Peak Day M	Zone 24	2925-2012	0	Apr	-2.455313	-3.30476	-3.491273	-3.619859	-3.3387	-3.099944	-2.896442	-2.861434
Peak Day M	Zone 24	2925-2012	0	May	-1.980674	-3.298306	-3.435821	-3.539922	-3.245493	-2.987417	-2.786197	-2.765667
Peak Day M	Zone 24	2925-2012	0	Jun	-2.694735	-3.304389	-3.417439	-3.461739	-3.156371	-2.902035	-2.692681	-2.659064
Peak Day M	Zone 24	2925-2012	0	Jul	-2.470053	-3.269375	-3.390402	-3.461765	-3.100222	-2.864868	-2.664662	-2.596237
Peak Day M	Zone 24	2925-2012	0	Aug	-2.577906	-3.291034	-3.409837	-3.488101	-3.116805	-2.82988	-2.667288	-2.570511
Peak Day M	Zone 24	2925-2012	0	Sep	-2.58042	-3.318707	-3.448887	-3.524171	-3.145516	-2.860655	-2.695714	-2.596769
Peak Day M	Zone 24	2925-2012	0	Oct	-2.72702	-3.345898	-3.479483	-3.381324	-3.231325	-2.997211	-2.778685	-2.715255
Peak Day M	Zone 24	2925-2012	49	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 24	2925-2012	49	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 24	2925-2012	49	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 24	2925-2012	49	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 24	2925-2012	49	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 24	2925-2012	49	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 24	2925-2012	49	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 24	2925-2012	49	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 24	2925-2012	49	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 24	2925-2012	49	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 24	2925-2012	49	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 24	2925-2012	49	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 24	2925-2012	50	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 24	2925-2012	50	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 24	2925-2012	50	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 24	2925-2012	50	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 24	2925-2012	50	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 24	2925-2012	50	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 24	2925-2012	50	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 24	2925-2012	50	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 24	2925-2012	50	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883

Data Item	Area	Scenario	Draw	Month	2020	2021	2022	2023	2024	2025	2026	2027
Peak Day M	Zone 20	2925-2012	53	Nov	-5.034245	-5.134853	-5.536729	-5.685599	-5.746446	-5.741707	-5.961017	-6.175377
Peak Day M	Zone 20	2925-2012	53	Dec	-5.085482	-5.259947	-5.592441	-5.729815	-5.790661	-5.785602	-6.00531	-6.204803
Peak Day M	Zone 20	2925-2012	53	Jan	-5.053628	-5.126154	-5.358524	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 20	2925-2012	53	Feb	-5.041223	-5.096388	-5.38795	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 20	2925-2012	53	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 20	2925-2012	53	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356
Peak Day M	Zone 20	2925-2012	53	May	-4.504243	-4.534317	-4.943542	-5.039975	-5.116632	-5.124897	-5.511628	-5.677511
Peak Day M	Zone 20	2925-2012	53	Jun	-4.389208	-4.408269	-4.837258	-4.987371	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 20	2925-2012	53	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 20	2925-2012	53	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 20	2925-2012	53	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.431068
Peak Day M	Zone 20	2925-2012	53	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.231716	-5.246173	-5.610445	-5.980553
Peak Day M	Zone 20	2925-2012	54	Nov	-4.997856	-5.134853	-5.550738	-5.650587	-5.71944	-5.741387	-5.961017	-6.160453
Peak Day M	Zone 20	2925-2012	54	Dec	-5.034237	-5.177797	-5.592441	-5.694802	-5.76379	-5.785602	-6.00531	-6.204803
Peak Day M	Zone 20	2925-2012	54	Jan	-4.976563	-5.063692	-5.443269	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 20	2925-2012	54	Feb	-5.006018	-5.096388	-5.42785	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 20	2925-2012	54	Mar	-4.93399	-5.081712	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 20	2925-2012	54	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356
Peak Day M	Zone 20	2925-2012	54	May	-4.504243	-4.534317	-4.943542	-5.039975	-5.168415	-5.124897	-5.565177	-5.731803
Peak Day M	Zone 20	2925-2012	54	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 20	2925-2012	54	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 20	2925-2012	54	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 20	2925-2012	54	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 20	2925-2012	54	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.217933	-5.225263	-5.610445	-5.980553
Peak Day M	Zone 24	2925-2012	0	Nov	-2.737523	-2.597935	-2.581686	-2.444508	-2.282069	-2.126406	-2.027925	-1.951069
Peak Day M	Zone 24	2925-2012	0	Dec	-2.767154	-2.653279	-2.596301	-2.457087	-2.399725	-2.356419	-2.243113	-2.118465
Peak Day M	Zone 24	2925-2012	0	Jan	-2.945346	-2.770895	-2.717781	-2.561596	-2.398068	-2.18926	-2.093122	-2.002255
Peak Day M	Zone 24	2925-2012	0	Feb	-2.930659	-2.736642	-2.692214	-2.541847	-2.378705	-2.166268	-2.073763	-1.988643
Peak Day M	Zone 24	2925-2012	0	Mar	-2.849409	-2.699407	-2.620147	-2.489587	-2.300084	-2.079034	-2.02748	-1.957583
Peak Day M	Zone 24	2925-2012	0	Apr	-2.676902	-2.474426	-2.457475	-2.315404	-2.165849	-2.004201	-1.983212	-1.888994
Peak Day M	Zone 24	2925-2012	0	May	-2.56704	-2.386981	-2.403818	-2.263695	-2.144239	-1.963935	-1.950959	-1.856319
Peak Day M	Zone 24	2925-2012	0	Jun	-2.484988	-2.305326	-2.336629	-2.202555	-2.064382	-1.912594	-1.90218	-1.812441
Peak Day M	Zone 24	2925-2012	0	Jul	-2.426839	-2.241076	-2.243247	-2.104025	-1.996607	-1.842884	-1.831215	-1.75152
Peak Day M	Zone 24	2925-2012	0	Aug	-2.423896	-2.226254	-2.210093	-2.071382	-1.954948	-1.786355	-1.784335	-1.709905
Peak Day M	Zone 24	2925-2012	0	Sep	-2.45746	-2.25162	-2.251106	-2.109663	-1.982255	-1.802663	-1.805104	-1.729373
Peak Day M	Zone 24	2925-2012	0	Oct	-2.562388	-2.371945	-2.408017	-2.261941	-2.133762	-2.043387	-1.949026	-1.891785
Peak Day M	Zone 24	2925-2012	49	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 24	2925-2012	49	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone 24	2925-2012	49	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 24	2925-2012	49	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 24	2925-2012	49	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 24	2925-2012	49	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 24	2925-2012	49	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 24	2925-2012	49	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 24	2925-2012	49	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 24	2925-2012	49	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 24	2925-2012	49	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 24	2925-2012	49	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 24	2925-2012	50	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 24	2925-2012	50	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone 24	2925-2012	50	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 24	2925-2012	50	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 24	2925-2012	50	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 24	2925-2012	50	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 24	2925-2012	50	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 24	2925-2012	50	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 24	2925-2012	50	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329

Data Item	Area	Scenario	Draw	Month	2028	2029	2030	2031	2032	2033
Peak Day M	Zone 20	2925-2012	53	Nov	-6.293158	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 20	2925-2012	53	Dec	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Peak Day M	Zone 20	2925-2012	53	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 20	2925-2012	53	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 20	2925-2012	53	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 20	2925-2012	53	Apr	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
Peak Day M	Zone 20	2925-2012	53	May	-5.720028	-5.602667	-5.64501	-5.334939	-5.388783	
Peak Day M	Zone 20	2925-2012	53	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 20	2925-2012	53	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 20	2925-2012	53	Aug	-5.31263	-5.158387	-5.262483	-4.993495	-5.044139	
Peak Day M	Zone 20	2925-2012	53	Sep	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Peak Day M	Zone 20	2925-2012	53	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 20	2925-2012	54	Nov	-6.278368	-6.250198	-6.388315	-6.054121	-6.105807	
Peak Day M	Zone 20	2925-2012	54	Dec	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Peak Day M	Zone 20	2925-2012	54	Jan	-6.105078	-6.174288	-6.252287	-6.77634	-6.112323	-6.173127
Peak Day M	Zone 20	2925-2012	54	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 20	2925-2012	54	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 20	2925-2012	54	Apr	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
Peak Day M	Zone 20	2925-2012	54	May	-5.720028	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 20	2925-2012	54	Jun	-5.6167	-5.488288	-5.493362	-5.232564	-5.285384	
Peak Day M	Zone 20	2925-2012	54	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 20	2925-2012	54	Aug	-5.31263	-5.158387	-5.262483	-4.993474	-5.037141	
Peak Day M	Zone 20	2925-2012	54	Sep	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Peak Day M	Zone 20	2925-2012	54	Oct	-5.757933	-5.726967	-5.85954	-5.785563	-5.640032	
Peak Day M	Zone 24	2925-2012	0	Nov	-1.830486	-1.67573	-1.582059	-1.382952	-1.290126	
Peak Day M	Zone 24	2925-2012	0	Dec	-1.971679	-1.939226	-2.072682	-3.611392	-2.556771	
Peak Day M	Zone 24	2925-2012	0	Jan	-1.893229	-1.768582	-1.654259	-1.479103	-1.379823	-1.287207
Peak Day M	Zone 24	2925-2012	0	Feb	-1.874768	-1.728669	-1.638874	-1.468179	-1.369632	-1.277701
Peak Day M	Zone 24	2925-2012	0	Mar	-1.81595	-1.633285	-1.547157	-1.354807	-1.263865	-1.179028
Peak Day M	Zone 24	2925-2012	0	Apr	-1.751791	-1.602953	-1.53038	-1.345223	-1.255336	
Peak Day M	Zone 24	2925-2012	0	May	-1.727504	-1.577991	-1.457462	-1.269781	-1.184722	
Peak Day M	Zone 24	2925-2012	0	Jun	-1.685114	-1.520937	-1.406173	-1.224893	-1.154329	
Peak Day M	Zone 24	2925-2012	0	Jul	-1.611617	-1.45742	-1.36396	-1.201912	-1.121465	
Peak Day M	Zone 24	2925-2012	0	Aug	-1.572939	-1.410726	-1.329369	-1.157458	-1.079976	
Peak Day M	Zone 24	2925-2012	0	Sep	-1.585792	-1.422597	-1.340335	-1.162466	-1.084602	
Peak Day M	Zone 24	2925-2012	0	Oct	-1.784943	-1.609928	-1.533323	-1.332236	-1.242811	
Peak Day M	Zone 24	2925-2012	49	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 24	2925-2012	49	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone 24	2925-2012	49	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 24	2925-2012	49	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 24	2925-2012	49	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 24	2925-2012	49	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 24	2925-2012	49	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 24	2925-2012	49	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 24	2925-2012	49	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 24	2925-2012	49	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 24	2925-2012	49	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 24	2925-2012	49	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 24	2925-2012	50	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 24	2925-2012	50	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone 24	2925-2012	50	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 24	2925-2012	50	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 24	2925-2012	50	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 24	2925-2012	50	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 24	2925-2012	50	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 24	2925-2012	50	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 24	2925-2012	50	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	

Data Item	Area	Scenario	Draw	Month	2012	2013	2014	2015	2016	2017	2018	2019
Peak Day M	Zone 24	2925-2012	50	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 24	2925-2012	50	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 24	2925-2012	50	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 24	2925-2012	51	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 24	2925-2012	51	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 24	2925-2012	51	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 24	2925-2012	51	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 24	2925-2012	51	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 24	2925-2012	51	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 24	2925-2012	51	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 24	2925-2012	51	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 24	2925-2012	51	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 24	2925-2012	51	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 24	2925-2012	51	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 24	2925-2012	51	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 24	2925-2012	52	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 24	2925-2012	52	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 24	2925-2012	52	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 24	2925-2012	52	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 24	2925-2012	52	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 24	2925-2012	52	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 24	2925-2012	52	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 24	2925-2012	52	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 24	2925-2012	52	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 24	2925-2012	52	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 24	2925-2012	52	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 24	2925-2012	52	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 24	2925-2012	53	Nov	-3.246098	-3.840157	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 24	2925-2012	53	Dec	-3.494101	-4.137303	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 24	2925-2012	53	Jan	-3.236205	-3.430731	-4.176443	-4.618098	-4.663178	-4.717219	-4.841214	-4.866403
Peak Day M	Zone 24	2925-2012	53	Feb	-2.864792	-3.460157	-4.10851	-4.647524	-4.692605	-4.686293	-4.807002	-4.910753
Peak Day M	Zone 24	2925-2012	53	Mar	-2.626653	-3.375013	-3.965561	-4.518481	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 24	2925-2012	53	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 24	2925-2012	53	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 24	2925-2012	53	Jun	-2.694735	-3.306425	-3.74904	-4.118367	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 24	2925-2012	53	Jul	-2.470053	-3.334913	-3.761162	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 24	2925-2012	53	Aug	-2.577906	-3.363402	-3.782681	-4.197859	-4.034961	-3.991667	-4.070797	-4.249651
Peak Day M	Zone 24	2925-2012	53	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.078371	-4.059129	-4.114207	-4.304532
Peak Day M	Zone 24	2925-2012	53	Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 24	2925-2012	54	Nov	-3.048893	-3.825197	-4.287353	-4.476101	-4.549675	-4.608058	-4.703142	-4.887862
Peak Day M	Zone 24	2925-2012	54	Dec	-3.371432	-3.991424	-4.497817	-4.661294	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 24	2925-2012	54	Jan	-3.158363	-3.760866	-4.176443	-4.707812	-4.693467	-4.702324	-4.841214	-4.957907
Peak Day M	Zone 24	2925-2012	54	Feb	-2.864792	-3.525783	-4.153922	-4.6714	-4.6738	-4.686745	-4.807002	-4.943175
Peak Day M	Zone 24	2925-2012	54	Mar	-2.626653	-3.472158	-4.047773	-4.538951	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 24	2925-2012	54	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 24	2925-2012	54	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 24	2925-2012	54	Jun	-2.694735	-3.306396	-3.74904	-4.118339	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 24	2925-2012	54	Jul	-2.470053	-3.334913	-3.761141	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 24	2925-2012	54	Aug	-2.577906	-3.363431	-3.782681	-4.197859	-4.034961	-3.991667	-4.070825	-4.249651
Peak Day M	Zone 24	2925-2012	54	Sep	-2.58042	-3.406841	-3.826091	-4.233675	-4.078371	-4.059129	-4.114235	-4.304532
Peak Day M	Zone 24	2925-2012	54	Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 26	2925-2012	0	Nov	-3.048893	-3.652112	-3.74249	-3.646219	-3.423335	-3.202678	-3.019323	-2.89316
Peak Day M	Zone 26	2925-2012	0	Dec	-3.575315	-4.007257	-3.940447	-3.793991	-3.543361	-3.294823	-3.131081	-2.967487
Peak Day M	Zone 26	2925-2012	0	Jan	-3.236205	-3.561319	-3.861422	-3.980058	-3.773036	-3.506995	-3.266619	-3.092604
Peak Day M	Zone 26	2925-2012	0	Feb	-2.864792	-3.525783	-3.888036	-4.018481	-3.747471	-3.500624	-3.283348	-3.111065
Peak Day M	Zone 26	2925-2012	0	Mar	-2.626653	-3.375013	-3.620755	-3.854612	-3.419487	-3.142657	-2.945937	-3.016896
Peak Day M	Zone 26	2925-2012	0	Apr	-2.455313	-3.30476	-3.491273	-3.619859	-3.3387	-3.099944	-2.896442	-2.861434

Data Item	Area	Scenario	Draw	Month	2020	2021	2022	2023	2024	2025	2026	2027
Peak Day M	Zone 24	2925-2012	50	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 24	2925-2012	50	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 24	2925-2012	50	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 24	2925-2012	51	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 24	2925-2012	51	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone 24	2925-2012	51	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 24	2925-2012	51	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 24	2925-2012	51	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 24	2925-2012	51	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 24	2925-2012	51	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 24	2925-2012	51	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 24	2925-2012	51	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 24	2925-2012	51	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 24	2925-2012	51	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 24	2925-2012	51	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 24	2925-2012	52	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 24	2925-2012	52	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone 24	2925-2012	52	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 24	2925-2012	52	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 24	2925-2012	52	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 24	2925-2012	52	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 24	2925-2012	52	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 24	2925-2012	52	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 24	2925-2012	52	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 24	2925-2012	52	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 24	2925-2012	52	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 24	2925-2012	52	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 24	2925-2012	53	Nov	-5.034245	-5.134853	-5.536729	-5.685599	-5.746446	-5.741707	-5.961017	-6.175377
Peak Day M	Zone 24	2925-2012	53	Dec	-5.085482	-5.259947	-5.592441	-5.729815	-5.790661	-5.785602	-6.00531	-6.204803
Peak Day M	Zone 24	2925-2012	53	Jan	-5.053628	-5.126154	-5.358524	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 24	2925-2012	53	Feb	-5.041223	-5.096388	-5.38795	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 24	2925-2012	53	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 24	2925-2012	53	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356
Peak Day M	Zone 24	2925-2012	53	May	-4.504243	-4.534317	-4.943542	-5.039975	-5.116632	-5.124897	-5.511628	-5.677511
Peak Day M	Zone 24	2925-2012	53	Jun	-4.389208	-4.408269	-4.837258	-4.987371	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 24	2925-2012	53	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 24	2925-2012	53	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 24	2925-2012	53	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.431068
Peak Day M	Zone 24	2925-2012	53	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.231716	-5.246173	-5.610445	-5.980553
Peak Day M	Zone 24	2925-2012	54	Nov	-4.997856	-5.134853	-5.550738	-5.650587	-5.71944	-5.741387	-5.961017	-6.160453
Peak Day M	Zone 24	2925-2012	54	Dec	-5.034237	-5.177797	-5.592441	-5.694802	-5.76379	-5.785602	-6.00531	-6.204803
Peak Day M	Zone 24	2925-2012	54	Jan	-4.976563	-5.063692	-5.443269	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 24	2925-2012	54	Feb	-5.006018	-5.096388	-5.42785	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 24	2925-2012	54	Mar	-4.93399	-5.081712	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 24	2925-2012	54	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356
Peak Day M	Zone 24	2925-2012	54	May	-4.504243	-4.534317	-4.943542	-5.039975	-5.168415	-5.124897	-5.565177	-5.731803
Peak Day M	Zone 24	2925-2012	54	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 24	2925-2012	54	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 24	2925-2012	54	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 24	2925-2012	54	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 24	2925-2012	54	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.217933	-5.225263	-5.610445	-5.980553
Peak Day M	Zone 26	2925-2012	0	Nov	-2.737523	-2.597935	-2.581686	-2.444508	-2.282069	-2.126406	-2.027925	-1.951069
Peak Day M	Zone 26	2925-2012	0	Dec	-2.767154	-2.653279	-2.596301	-2.457087	-2.399725	-2.356419	-2.243113	-2.118465
Peak Day M	Zone 26	2925-2012	0	Jan	-2.945346	-2.770895	-2.717781	-2.561596	-2.398068	-2.18926	-2.093122	-2.002255
Peak Day M	Zone 26	2925-2012	0	Feb	-2.930659	-2.736642	-2.692214	-2.541847	-2.378705	-2.166268	-2.073763	-1.988643
Peak Day M	Zone 26	2925-2012	0	Mar	-2.849409	-2.699407	-2.620147	-2.489587	-2.300084	-2.079034	-2.02748	-1.957583
Peak Day M	Zone 26	2925-2012	0	Apr	-2.676902	-2.474426	-2.457475	-2.315404	-2.165849	-2.004201	-1.983212	-1.888994

Data Item	Area	Scenario	Draw	Month	2028	2029	2030	2031	2032	2033
Peak Day M	Zone 24	2925-2012	50	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 24	2925-2012	50	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 24	2925-2012	50	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 24	2925-2012	51	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 24	2925-2012	51	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone 24	2925-2012	51	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 24	2925-2012	51	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 24	2925-2012	51	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 24	2925-2012	51	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 24	2925-2012	51	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 24	2925-2012	51	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 24	2925-2012	51	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 24	2925-2012	51	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 24	2925-2012	51	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 24	2925-2012	51	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 24	2925-2012	52	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 24	2925-2012	52	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone 24	2925-2012	52	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 24	2925-2012	52	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 24	2925-2012	52	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 24	2925-2012	52	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 24	2925-2012	52	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 24	2925-2012	52	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 24	2925-2012	52	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 24	2925-2012	52	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 24	2925-2012	52	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 24	2925-2012	52	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 24	2925-2012	53	Nov	-6.293158	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 24	2925-2012	53	Dec	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Peak Day M	Zone 24	2925-2012	53	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 24	2925-2012	53	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 24	2925-2012	53	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 24	2925-2012	53	Apr	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
Peak Day M	Zone 24	2925-2012	53	May	-5.720028	-5.602667	-5.64501	-5.334939	-5.388783	
Peak Day M	Zone 24	2925-2012	53	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 24	2925-2012	53	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 24	2925-2012	53	Aug	-5.31263	-5.158387	-5.262483	-4.993495	-5.044139	
Peak Day M	Zone 24	2925-2012	53	Sep	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Peak Day M	Zone 24	2925-2012	53	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 24	2925-2012	54	Nov	-6.278368	-6.250198	-6.388315	-6.054121	-6.105807	
Peak Day M	Zone 24	2925-2012	54	Dec	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Peak Day M	Zone 24	2925-2012	54	Jan	-6.105078	-6.174288	-6.252287	-6.77634	-6.112323	-6.173127
Peak Day M	Zone 24	2925-2012	54	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 24	2925-2012	54	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 24	2925-2012	54	Apr	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
Peak Day M	Zone 24	2925-2012	54	May	-5.720028	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 24	2925-2012	54	Jun	-5.6167	-5.488288	-5.493362	-5.232564	-5.285384	
Peak Day M	Zone 24	2925-2012	54	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 24	2925-2012	54	Aug	-5.31263	-5.158387	-5.262483	-4.993474	-5.037141	
Peak Day M	Zone 24	2925-2012	54	Sep	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Peak Day M	Zone 24	2925-2012	54	Oct	-5.757933	-5.726967	-5.85954	-5.785563	-5.640032	
Peak Day M	Zone 26	2925-2012	0	Nov	-1.830486	-1.67573	-1.582059	-1.382952	-1.290126	
Peak Day M	Zone 26	2925-2012	0	Dec	-1.971679	-1.939226	-2.072682	-3.611392	-2.556771	
Peak Day M	Zone 26	2925-2012	0	Jan	-1.893229	-1.768582	-1.654259	-1.479103	-1.379823	-1.287207
Peak Day M	Zone 26	2925-2012	0	Feb	-1.874768	-1.728669	-1.638874	-1.468179	-1.369632	-1.277701
Peak Day M	Zone 26	2925-2012	0	Mar	-1.81595	-1.633285	-1.547157	-1.354807	-1.263865	-1.179028
Peak Day M	Zone 26	2925-2012	0	Apr	-1.751791	-1.602953	-1.53038	-1.345223	-1.255336	

Data Item	Area	Scenario	Draw	Month	2012	2013	2014	2015	2016	2017	2018	2019
Peak Day M	Zone 26	2925-2012	0	May	-1.980674	-3.298306	-3.435821	-3.539922	-3.245493	-2.987417	-2.786197	-2.765667
Peak Day M	Zone 26	2925-2012	0	Jun	-2.694735	-3.304389	-3.417439	-3.461739	-3.156371	-2.902035	-2.692681	-2.659064
Peak Day M	Zone 26	2925-2012	0	Jul	-2.470053	-3.269375	-3.390402	-3.461765	-3.100222	-2.864868	-2.664662	-2.596237
Peak Day M	Zone 26	2925-2012	0	Aug	-2.577906	-3.291034	-3.409837	-3.488101	-3.116805	-2.82988	-2.667288	-2.570511
Peak Day M	Zone 26	2925-2012	0	Sep	-2.58042	-3.318707	-3.448887	-3.524171	-3.145516	-2.860655	-2.695714	-2.596769
Peak Day M	Zone 26	2925-2012	0	Oct	-2.72702	-3.345898	-3.479483	-3.381324	-3.231325	-2.997211	-2.778685	-2.715255
Peak Day M	Zone 26	2925-2012	49	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 26	2925-2012	49	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 26	2925-2012	49	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 26	2925-2012	49	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 26	2925-2012	49	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 26	2925-2012	49	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 26	2925-2012	49	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 26	2925-2012	49	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 26	2925-2012	49	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 26	2925-2012	49	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 26	2925-2012	49	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 26	2925-2012	49	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 26	2925-2012	50	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 26	2925-2012	50	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 26	2925-2012	50	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 26	2925-2012	50	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 26	2925-2012	50	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 26	2925-2012	50	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 26	2925-2012	50	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 26	2925-2012	50	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 26	2925-2012	50	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 26	2925-2012	50	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 26	2925-2012	50	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 26	2925-2012	50	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 26	2925-2012	51	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 26	2925-2012	51	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 26	2925-2012	51	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 26	2925-2012	51	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 26	2925-2012	51	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 26	2925-2012	51	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 26	2925-2012	51	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 26	2925-2012	51	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 26	2925-2012	51	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 26	2925-2012	51	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 26	2925-2012	51	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 26	2925-2012	51	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 26	2925-2012	52	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 26	2925-2012	52	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 26	2925-2012	52	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 26	2925-2012	52	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 26	2925-2012	52	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 26	2925-2012	52	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 26	2925-2012	52	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 26	2925-2012	52	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 26	2925-2012	52	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 26	2925-2012	52	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 26	2925-2012	52	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 26	2925-2012	52	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 26	2925-2012	53	Nov	-3.246098	-3.840157	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 26	2925-2012	53	Dec	-3.494101	-4.137303	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 26	2925-2012	53	Jan	-3.236205	-3.430731	-4.176443	-4.618098	-4.663178	-4.717219	-4.841214	-4.866403

Data Item	Area	Scenario	Draw	Month	2020	2021	2022	2023	2024	2025	2026	2027
Peak Day M	Zone 26	2925-2012	0	May	-2.56704	-2.386981	-2.403818	-2.263695	-2.144239	-1.963935	-1.950959	-1.856319
Peak Day M	Zone 26	2925-2012	0	Jun	-2.484988	-2.305326	-2.336629	-2.202555	-2.064382	-1.912594	-1.90218	-1.812441
Peak Day M	Zone 26	2925-2012	0	Jul	-2.426839	-2.241076	-2.243247	-2.104025	-1.996607	-1.842884	-1.831215	-1.75152
Peak Day M	Zone 26	2925-2012	0	Aug	-2.423896	-2.226254	-2.210093	-2.071382	-1.954948	-1.786355	-1.784335	-1.709905
Peak Day M	Zone 26	2925-2012	0	Sep	-2.45746	-2.25162	-2.251106	-2.109663	-1.982255	-1.802663	-1.805104	-1.729373
Peak Day M	Zone 26	2925-2012	0	Oct	-2.562388	-2.371945	-2.408017	-2.261941	-2.133762	-2.043387	-1.949026	-1.891785
Peak Day M	Zone 26	2925-2012	49	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 26	2925-2012	49	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone 26	2925-2012	49	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 26	2925-2012	49	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 26	2925-2012	49	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 26	2925-2012	49	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 26	2925-2012	49	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 26	2925-2012	49	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 26	2925-2012	49	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 26	2925-2012	49	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 26	2925-2012	49	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 26	2925-2012	49	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 26	2925-2012	50	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 26	2925-2012	50	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone 26	2925-2012	50	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 26	2925-2012	50	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 26	2925-2012	50	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 26	2925-2012	50	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 26	2925-2012	50	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 26	2925-2012	50	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 26	2925-2012	50	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 26	2925-2012	50	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 26	2925-2012	50	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 26	2925-2012	50	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 26	2925-2012	51	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 26	2925-2012	51	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone 26	2925-2012	51	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 26	2925-2012	51	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 26	2925-2012	51	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 26	2925-2012	51	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 26	2925-2012	51	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 26	2925-2012	51	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 26	2925-2012	51	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 26	2925-2012	51	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 26	2925-2012	51	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 26	2925-2012	51	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 26	2925-2012	52	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 26	2925-2012	52	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone 26	2925-2012	52	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 26	2925-2012	52	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 26	2925-2012	52	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 26	2925-2012	52	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 26	2925-2012	52	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 26	2925-2012	52	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 26	2925-2012	52	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 26	2925-2012	52	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 26	2925-2012	52	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 26	2925-2012	52	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 26	2925-2012	53	Nov	-5.034245	-5.134853	-5.536729	-5.685599	-5.746446	-5.741707	-5.961017	-6.175377
Peak Day M	Zone 26	2925-2012	53	Dec	-5.085482	-5.259947	-5.592441	-5.729815	-5.790661	-5.785602	-6.00531	-6.204803
Peak Day M	Zone 26	2925-2012	53	Jan	-5.053628	-5.126154	-5.358524	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945

Data Item	Area	Scenario	Draw	Month	2028	2029	2030	2031	2032	2033
Peak Day M	Zone 26	2925-2012	0	May	-1.727504	-1.577991	-1.457462	-1.269781	-1.184722	
Peak Day M	Zone 26	2925-2012	0	Jun	-1.685114	-1.520937	-1.406173	-1.224893	-1.154329	
Peak Day M	Zone 26	2925-2012	0	Jul	-1.611617	-1.45742	-1.36396	-1.201912	-1.121465	
Peak Day M	Zone 26	2925-2012	0	Aug	-1.572939	-1.410726	-1.329369	-1.157458	-1.079976	
Peak Day M	Zone 26	2925-2012	0	Sep	-1.585792	-1.422597	-1.340335	-1.162466	-1.084602	
Peak Day M	Zone 26	2925-2012	0	Oct	-1.784943	-1.609928	-1.533323	-1.332236	-1.242811	
Peak Day M	Zone 26	2925-2012	49	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 26	2925-2012	49	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone 26	2925-2012	49	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 26	2925-2012	49	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 26	2925-2012	49	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 26	2925-2012	49	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 26	2925-2012	49	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 26	2925-2012	49	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 26	2925-2012	49	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 26	2925-2012	49	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 26	2925-2012	49	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 26	2925-2012	49	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 26	2925-2012	50	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 26	2925-2012	50	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone 26	2925-2012	50	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 26	2925-2012	50	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 26	2925-2012	50	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 26	2925-2012	50	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 26	2925-2012	50	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 26	2925-2012	50	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 26	2925-2012	50	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 26	2925-2012	50	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 26	2925-2012	50	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 26	2925-2012	50	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 26	2925-2012	51	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 26	2925-2012	51	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone 26	2925-2012	51	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 26	2925-2012	51	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 26	2925-2012	51	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 26	2925-2012	51	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 26	2925-2012	51	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 26	2925-2012	51	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 26	2925-2012	51	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 26	2925-2012	51	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 26	2925-2012	51	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 26	2925-2012	51	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 26	2925-2012	52	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 26	2925-2012	52	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone 26	2925-2012	52	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 26	2925-2012	52	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 26	2925-2012	52	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 26	2925-2012	52	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 26	2925-2012	52	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 26	2925-2012	52	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 26	2925-2012	52	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 26	2925-2012	52	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 26	2925-2012	52	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 26	2925-2012	52	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 26	2925-2012	53	Nov	-6.293158	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 26	2925-2012	53	Dec	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Peak Day M	Zone 26	2925-2012	53	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127

Data Item	Area	Scenario	Draw	Month	2012	2013	2014	2015	2016	2017	2018	2019
Peak Day M	Zone 26	2925-2012	53	Feb	-2.864792	-3.460157	-4.10851	-4.647524	-4.692605	-4.686293	-4.807002	-4.910753
Peak Day M	Zone 26	2925-2012	53	Mar	-2.626653	-3.375013	-3.965561	-4.518481	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 26	2925-2012	53	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 26	2925-2012	53	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 26	2925-2012	53	Jun	-2.694735	-3.306425	-3.74904	-4.118367	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 26	2925-2012	53	Jul	-2.470053	-3.334913	-3.761162	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 26	2925-2012	53	Aug	-2.577906	-3.363402	-3.782681	-4.197859	-4.034961	-3.991667	-4.070797	-4.249651
Peak Day M	Zone 26	2925-2012	53	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.078371	-4.059129	-4.114207	-4.304532
Peak Day M	Zone 26	2925-2012	53	Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 26	2925-2012	54	Nov	-3.048893	-3.825197	-4.287353	-4.476101	-4.549675	-4.608058	-4.703142	-4.887862
Peak Day M	Zone 26	2925-2012	54	Dec	-3.371432	-3.991424	-4.497817	-4.661294	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 26	2925-2012	54	Jan	-3.158363	-3.760866	-4.176443	-4.707812	-4.693467	-4.702324	-4.841214	-4.957907
Peak Day M	Zone 26	2925-2012	54	Feb	-2.864792	-3.525783	-4.153922	-4.6714	-4.6738	-4.686745	-4.807002	-4.943175
Peak Day M	Zone 26	2925-2012	54	Mar	-2.626653	-3.472158	-4.047773	-4.538951	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 26	2925-2012	54	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 26	2925-2012	54	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 26	2925-2012	54	Jun	-2.694735	-3.306396	-3.74904	-4.118339	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 26	2925-2012	54	Jul	-2.470053	-3.334913	-3.761141	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 26	2925-2012	54	Aug	-2.577906	-3.363431	-3.782681	-4.197859	-4.034961	-3.991667	-4.070825	-4.249651
Peak Day M	Zone 26	2925-2012	54	Sep	-2.58042	-3.406841	-3.826091	-4.233675	-4.078371	-4.059129	-4.114235	-4.304532
Peak Day M	Zone 26	2925-2012	54	Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 30-S	2925-2012	0	Nov	-3.048893	-3.652112	-3.74249	-3.646219	-3.423335	-3.202678	-3.019323	-2.89316
Peak Day M	Zone 30-S	2925-2012	0	Dec	-3.575315	-4.007257	-3.940447	-3.793991	-3.543361	-3.294823	-3.131081	-2.967487
Peak Day M	Zone 30-S	2925-2012	0	Jan	-3.236205	-3.561319	-3.861422	-3.980058	-3.773036	-3.506995	-3.266619	-3.092604
Peak Day M	Zone 30-S	2925-2012	0	Feb	-2.864792	-3.525783	-3.888036	-4.018481	-3.747471	-3.500624	-3.283348	-3.111065
Peak Day M	Zone 30-S	2925-2012	0	Mar	-2.626653	-3.375013	-3.620755	-3.854612	-3.419487	-3.142657	-2.945937	-3.016896
Peak Day M	Zone 30-S	2925-2012	0	Apr	-2.455313	-3.30476	-3.491273	-3.619859	-3.3387	-3.099944	-2.896442	-2.861434
Peak Day M	Zone 30-S	2925-2012	0	May	-1.980674	-3.298306	-3.435821	-3.539922	-3.245493	-2.987417	-2.786197	-2.765667
Peak Day M	Zone 30-S	2925-2012	0	Jun	-2.694735	-3.304389	-3.417439	-3.461739	-3.156371	-2.902035	-2.692681	-2.659064
Peak Day M	Zone 30-S	2925-2012	0	Jul	-2.470053	-3.269375	-3.390402	-3.461765	-3.100222	-2.864868	-2.664662	-2.596237
Peak Day M	Zone 30-S	2925-2012	0	Aug	-2.577906	-3.291034	-3.409837	-3.488101	-3.116805	-2.82988	-2.667288	-2.570511
Peak Day M	Zone 30-S	2925-2012	0	Sep	-2.58042	-3.318707	-3.448887	-3.524171	-3.145516	-2.860655	-2.695714	-2.596769
Peak Day M	Zone 30-S	2925-2012	0	Oct	-2.72702	-3.345898	-3.479483	-3.381324	-3.231325	-2.997211	-2.778685	-2.715255
Peak Day M	Zone 30-S	2925-2012	49	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 30-S	2925-2012	49	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 30-S	2925-2012	49	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 30-S	2925-2012	49	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 30-S	2925-2012	49	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 30-S	2925-2012	49	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 30-S	2925-2012	49	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 30-S	2925-2012	49	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 30-S	2925-2012	49	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 30-S	2925-2012	49	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 30-S	2925-2012	49	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 30-S	2925-2012	49	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 30-S	2925-2012	50	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 30-S	2925-2012	50	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 30-S	2925-2012	50	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 30-S	2925-2012	50	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 30-S	2925-2012	50	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 30-S	2925-2012	50	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 30-S	2925-2012	50	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 30-S	2925-2012	50	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 30-S	2925-2012	50	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 30-S	2925-2012	50	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 30-S	2925-2012	50	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 30-S	2925-2012	50	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728

Data Item	Area	Scenario	Draw	Month	2020	2021	2022	2023	2024	2025	2026	2027
Peak Day M	Zone 26	2925-2012	53	Feb	-5.041223	-5.096388	-5.38795	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 26	2925-2012	53	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 26	2925-2012	53	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356
Peak Day M	Zone 26	2925-2012	53	May	-4.504243	-4.534317	-4.943542	-5.039975	-5.116632	-5.124897	-5.511628	-5.677511
Peak Day M	Zone 26	2925-2012	53	Jun	-4.389208	-4.408269	-4.837258	-4.987371	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 26	2925-2012	53	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 26	2925-2012	53	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 26	2925-2012	53	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.431068
Peak Day M	Zone 26	2925-2012	53	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.231716	-5.246173	-5.610445	-5.980553
Peak Day M	Zone 26	2925-2012	54	Nov	-4.997856	-5.134853	-5.550738	-5.650587	-5.71944	-5.741387	-5.961017	-6.160453
Peak Day M	Zone 26	2925-2012	54	Dec	-5.034237	-5.177797	-5.592441	-5.694802	-5.76379	-5.785602	-6.00531	-6.204803
Peak Day M	Zone 26	2925-2012	54	Jan	-4.976563	-5.063692	-5.443269	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 26	2925-2012	54	Feb	-5.006018	-5.096388	-5.42785	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 26	2925-2012	54	Mar	-4.93399	-5.081712	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 26	2925-2012	54	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356
Peak Day M	Zone 26	2925-2012	54	May	-4.504243	-4.534317	-4.943542	-5.039975	-5.168415	-5.124897	-5.565177	-5.731803
Peak Day M	Zone 26	2925-2012	54	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 26	2925-2012	54	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 26	2925-2012	54	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 26	2925-2012	54	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 26	2925-2012	54	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.217933	-5.225263	-5.610445	-5.980553
Peak Day M	Zone 30-S	2925-2012	0	Nov	-2.737523	-2.597935	-2.581686	-2.444508	-2.282069	-2.126406	-2.027925	-1.951069
Peak Day M	Zone 30-S	2925-2012	0	Dec	-2.767154	-2.653279	-2.596301	-2.457087	-2.399725	-500	-500	-500
Peak Day M	Zone 30-S	2925-2012	0	Jan	-2.945346	-2.770895	-2.717781	-2.561596	-2.398068	-2.18926	-2.093122	-2.002255
Peak Day M	Zone 30-S	2925-2012	0	Feb	-2.930659	-2.736642	-2.692214	-2.541847	-2.378705	-2.166268	-2.073763	-1.988643
Peak Day M	Zone 30-S	2925-2012	0	Mar	-2.849409	-2.699407	-2.620147	-2.489587	-2.300084	-2.079034	-2.02748	-1.957583
Peak Day M	Zone 30-S	2925-2012	0	Apr	-2.676902	-2.474426	-2.457475	-2.315404	-2.165849	-2.004201	-1.983212	-1.888994
Peak Day M	Zone 30-S	2925-2012	0	May	-2.56704	-2.386981	-2.403818	-2.263695	-2.144239	-1.963935	-1.950959	-1.856319
Peak Day M	Zone 30-S	2925-2012	0	Jun	-2.484988	-2.305326	-2.336629	-2.202555	-2.064382	-1.912594	-1.90218	-1.812441
Peak Day M	Zone 30-S	2925-2012	0	Jul	-2.426839	-2.241076	-2.243247	-2.104025	-1.996607	-1.842884	-1.831215	-1.75152
Peak Day M	Zone 30-S	2925-2012	0	Aug	-2.423896	-2.226254	-2.210093	-2.071382	-1.954948	-1.786355	-1.784335	-1.709905
Peak Day M	Zone 30-S	2925-2012	0	Sep	-2.45746	-2.25162	-2.251106	-2.109663	-1.982255	-1.802663	-1.805104	-1.729373
Peak Day M	Zone 30-S	2925-2012	0	Oct	-2.562388	-2.371945	-2.408017	-2.261941	-2.133762	-2.043387	-1.949026	-1.891785
Peak Day M	Zone 30-S	2925-2012	49	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 30-S	2925-2012	49	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-500	-500	-500
Peak Day M	Zone 30-S	2925-2012	49	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 30-S	2925-2012	49	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 30-S	2925-2012	49	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 30-S	2925-2012	49	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 30-S	2925-2012	49	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 30-S	2925-2012	49	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 30-S	2925-2012	49	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 30-S	2925-2012	49	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 30-S	2925-2012	49	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 30-S	2925-2012	49	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 30-S	2925-2012	50	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 30-S	2925-2012	50	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-500	-500	-500
Peak Day M	Zone 30-S	2925-2012	50	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 30-S	2925-2012	50	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 30-S	2925-2012	50	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 30-S	2925-2012	50	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 30-S	2925-2012	50	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 30-S	2925-2012	50	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 30-S	2925-2012	50	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 30-S	2925-2012	50	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 30-S	2925-2012	50	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 30-S	2925-2012	50	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553

Data Item	Area	Scenario	Draw	Month	2028	2029	2030	2031	2032	2033
Peak Day M	Zone 26	2925-2012	53	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 26	2925-2012	53	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 26	2925-2012	53	Apr	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
Peak Day M	Zone 26	2925-2012	53	May	-5.720028	-5.602667	-5.64501	-5.334939	-5.388783	
Peak Day M	Zone 26	2925-2012	53	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 26	2925-2012	53	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 26	2925-2012	53	Aug	-5.31263	-5.158387	-5.262483	-4.993495	-5.044139	
Peak Day M	Zone 26	2925-2012	53	Sep	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Peak Day M	Zone 26	2925-2012	53	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 26	2925-2012	54	Nov	-6.278368	-6.250198	-6.388315	-6.054121	-6.105807	
Peak Day M	Zone 26	2925-2012	54	Dec	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Peak Day M	Zone 26	2925-2012	54	Jan	-6.105078	-6.174288	-6.252287	-6.77634	-6.112323	-6.173127
Peak Day M	Zone 26	2925-2012	54	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 26	2925-2012	54	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 26	2925-2012	54	Apr	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
Peak Day M	Zone 26	2925-2012	54	May	-5.720028	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 26	2925-2012	54	Jun	-5.6167	-5.488288	-5.493362	-5.232564	-5.285384	
Peak Day M	Zone 26	2925-2012	54	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 26	2925-2012	54	Aug	-5.31263	-5.158387	-5.262483	-4.993474	-5.037141	
Peak Day M	Zone 26	2925-2012	54	Sep	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Peak Day M	Zone 26	2925-2012	54	Oct	-5.757933	-5.726967	-5.85954	-5.785563	-5.640032	
Peak Day M	Zone 30-S	2925-2012	0	Nov	-1.830486	-1.67573	-1.582059	-1.382952	-1.290126	
Peak Day M	Zone 30-S	2925-2012	0	Dec	-500	-500	-500	-500	-500	
Peak Day M	Zone 30-S	2925-2012	0	Jan	-1.893229	-1.768582	-1.654259	-1.479103	-1.379823	-1.287207
Peak Day M	Zone 30-S	2925-2012	0	Feb	-1.874768	-1.728669	-1.638874	-1.468179	-1.369632	-1.277701
Peak Day M	Zone 30-S	2925-2012	0	Mar	-1.81595	-1.633285	-1.547157	-1.354807	-1.263865	-1.179028
Peak Day M	Zone 30-S	2925-2012	0	Apr	-1.751791	-1.602953	-1.53038	-1.345223	-1.255336	
Peak Day M	Zone 30-S	2925-2012	0	May	-1.727504	-1.577991	-1.457462	-1.269781	-1.184722	
Peak Day M	Zone 30-S	2925-2012	0	Jun	-1.685114	-1.520937	-1.406173	-1.224893	-1.154329	
Peak Day M	Zone 30-S	2925-2012	0	Jul	-1.611617	-1.45742	-1.36396	-1.201912	-1.121465	
Peak Day M	Zone 30-S	2925-2012	0	Aug	-1.572939	-1.410726	-1.329369	-1.157458	-1.079976	
Peak Day M	Zone 30-S	2925-2012	0	Sep	-1.585792	-1.422597	-1.340335	-1.162466	-1.084602	
Peak Day M	Zone 30-S	2925-2012	0	Oct	-1.784943	-1.609928	-1.533323	-1.332236	-1.242811	
Peak Day M	Zone 30-S	2925-2012	49	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 30-S	2925-2012	49	Dec	-500	-500	-500	-500	-500	
Peak Day M	Zone 30-S	2925-2012	49	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 30-S	2925-2012	49	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 30-S	2925-2012	49	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 30-S	2925-2012	49	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 30-S	2925-2012	49	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 30-S	2925-2012	49	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 30-S	2925-2012	49	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 30-S	2925-2012	49	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 30-S	2925-2012	49	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 30-S	2925-2012	49	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 30-S	2925-2012	50	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 30-S	2925-2012	50	Dec	-500	-500	-500	-500	-500	
Peak Day M	Zone 30-S	2925-2012	50	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 30-S	2925-2012	50	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 30-S	2925-2012	50	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 30-S	2925-2012	50	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 30-S	2925-2012	50	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 30-S	2925-2012	50	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 30-S	2925-2012	50	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 30-S	2925-2012	50	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 30-S	2925-2012	50	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 30-S	2925-2012	50	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	

Data Item	Area	Scenario	Draw	Month	2012	2013	2014	2015	2016	2017	2018	2019
Peak Day M	Zone 30-S	2925-2012	51	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 30-S	2925-2012	51	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 30-S	2925-2012	51	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 30-S	2925-2012	51	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 30-S	2925-2012	51	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 30-S	2925-2012	51	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 30-S	2925-2012	51	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 30-S	2925-2012	51	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 30-S	2925-2012	51	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 30-S	2925-2012	51	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 30-S	2925-2012	51	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 30-S	2925-2012	51	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 30-S	2925-2012	52	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 30-S	2925-2012	52	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 30-S	2925-2012	52	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 30-S	2925-2012	52	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 30-S	2925-2012	52	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 30-S	2925-2012	52	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 30-S	2925-2012	52	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 30-S	2925-2012	52	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 30-S	2925-2012	52	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 30-S	2925-2012	52	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 30-S	2925-2012	52	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 30-S	2925-2012	52	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 30-S	2925-2012	53	Nov	-3.246098	-3.840157	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 30-S	2925-2012	53	Dec	-3.494101	-4.137303	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 30-S	2925-2012	53	Jan	-3.236205	-3.430731	-4.176443	-4.618098	-4.663178	-4.717219	-4.841214	-4.866403
Peak Day M	Zone 30-S	2925-2012	53	Feb	-2.864792	-3.460157	-4.10851	-4.647524	-4.692605	-4.686293	-4.807002	-4.910753
Peak Day M	Zone 30-S	2925-2012	53	Mar	-2.626653	-3.375013	-3.965561	-4.518481	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 30-S	2925-2012	53	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 30-S	2925-2012	53	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 30-S	2925-2012	53	Jun	-2.694735	-3.306425	-3.74904	-4.118367	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 30-S	2925-2012	53	Jul	-2.470053	-3.334913	-3.761162	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 30-S	2925-2012	53	Aug	-2.577906	-3.363402	-3.782681	-4.197859	-4.034961	-3.991667	-4.070797	-4.249651
Peak Day M	Zone 30-S	2925-2012	53	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.078371	-4.059129	-4.114207	-4.304532
Peak Day M	Zone 30-S	2925-2012	53	Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 30-S	2925-2012	54	Nov	-3.048893	-3.825197	-4.287353	-4.476101	-4.549675	-4.608058	-4.703142	-4.887862
Peak Day M	Zone 30-S	2925-2012	54	Dec	-3.371432	-3.991424	-4.497817	-4.661294	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 30-S	2925-2012	54	Jan	-3.158363	-3.760866	-4.176443	-4.707812	-4.693467	-4.702324	-4.841214	-4.957907
Peak Day M	Zone 30-S	2925-2012	54	Feb	-2.864792	-3.525783	-4.153922	-4.6714	-4.6738	-4.686745	-4.807002	-4.943175
Peak Day M	Zone 30-S	2925-2012	54	Mar	-2.626653	-3.472158	-4.047773	-4.538951	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 30-S	2925-2012	54	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 30-S	2925-2012	54	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 30-S	2925-2012	54	Jun	-2.694735	-3.306396	-3.74904	-4.118339	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 30-S	2925-2012	54	Jul	-2.470053	-3.334913	-3.761141	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 30-S	2925-2012	54	Aug	-2.577906	-3.363431	-3.782681	-4.197859	-4.034961	-3.991667	-4.070825	-4.249651
Peak Day M	Zone 30-S	2925-2012	54	Sep	-2.58042	-3.406841	-3.826091	-4.233675	-4.078371	-4.059129	-4.114235	-4.304532
Peak Day M	Zone 30-S	2925-2012	54	Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 30-W	2925-2012	0	Nov	-3.048893	-3.652112	-3.74249	-3.646219	-3.423335	-3.202678	-3.019323	-2.89316
Peak Day M	Zone 30-W	2925-2012	0	Dec	-3.575315	-4.007257	-3.940447	-3.793991	-3.543361	-3.294823	-3.131081	-2.967487
Peak Day M	Zone 30-W	2925-2012	0	Jan	-3.236205	-3.561319	-3.861422	-3.980058	-3.773036	-3.506995	-3.266619	-3.092604
Peak Day M	Zone 30-W	2925-2012	0	Feb	-2.864792	-3.525783	-3.888036	-4.018481	-3.747471	-3.500624	-3.283348	-3.111065
Peak Day M	Zone 30-W	2925-2012	0	Mar	-2.626653	-3.375013	-3.620755	-3.854612	-3.419487	-3.142657	-2.945937	-3.016896
Peak Day M	Zone 30-W	2925-2012	0	Apr	-2.455313	-3.30476	-3.491273	-3.619859	-3.3387	-3.099944	-2.896442	-2.861434
Peak Day M	Zone 30-W	2925-2012	0	May	-1.980674	-3.298306	-3.435821	-3.539922	-3.245493	-2.987417	-2.786197	-2.765667
Peak Day M	Zone 30-W	2925-2012	0	Jun	-2.694735	-3.304389	-3.417439	-3.461739	-3.156371	-2.902035	-2.692681	-2.659064
Peak Day M	Zone 30-W	2925-2012	0	Jul	-2.470053	-3.269375	-3.390402	-3.461765	-3.100222	-2.864868	-2.664662	-2.596237

Data Item	Area	Scenario	Draw	Month	2020	2021	2022	2023	2024	2025	2026	2027
Peak Day M	Zone 30-S	2925-2012	51	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 30-S	2925-2012	51	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-500	-500	-500
Peak Day M	Zone 30-S	2925-2012	51	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 30-S	2925-2012	51	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 30-S	2925-2012	51	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 30-S	2925-2012	51	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 30-S	2925-2012	51	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 30-S	2925-2012	51	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 30-S	2925-2012	51	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 30-S	2925-2012	51	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 30-S	2925-2012	51	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 30-S	2925-2012	51	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 30-S	2925-2012	52	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 30-S	2925-2012	52	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-500	-500	-500
Peak Day M	Zone 30-S	2925-2012	52	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 30-S	2925-2012	52	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 30-S	2925-2012	52	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 30-S	2925-2012	52	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 30-S	2925-2012	52	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 30-S	2925-2012	52	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 30-S	2925-2012	52	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 30-S	2925-2012	52	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 30-S	2925-2012	52	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 30-S	2925-2012	52	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 30-S	2925-2012	53	Nov	-5.034245	-5.134853	-5.536729	-5.685599	-5.746446	-5.741707	-5.961017	-6.175377
Peak Day M	Zone 30-S	2925-2012	53	Dec	-5.085482	-5.259947	-5.592441	-5.729815	-5.790661	-500	-500	-500
Peak Day M	Zone 30-S	2925-2012	53	Jan	-5.053628	-5.126154	-5.358524	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 30-S	2925-2012	53	Feb	-5.041223	-5.096388	-5.38795	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 30-S	2925-2012	53	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 30-S	2925-2012	53	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356
Peak Day M	Zone 30-S	2925-2012	53	May	-4.504243	-4.534317	-4.943542	-5.039975	-5.116632	-5.124897	-5.511628	-5.677511
Peak Day M	Zone 30-S	2925-2012	53	Jun	-4.389208	-4.408269	-4.837258	-4.987371	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 30-S	2925-2012	53	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 30-S	2925-2012	53	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 30-S	2925-2012	53	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.431068
Peak Day M	Zone 30-S	2925-2012	53	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.231716	-5.246173	-5.610445	-5.980553
Peak Day M	Zone 30-S	2925-2012	54	Nov	-4.997856	-5.134853	-5.550738	-5.650587	-5.71944	-5.741387	-5.961017	-6.160453
Peak Day M	Zone 30-S	2925-2012	54	Dec	-5.034237	-5.177797	-5.592441	-5.694802	-5.76379	-5.785602	-6.00531	-6.204803
Peak Day M	Zone 30-S	2925-2012	54	Jan	-4.976563	-5.063692	-5.443269	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 30-S	2925-2012	54	Feb	-5.006018	-5.096388	-5.42785	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 30-S	2925-2012	54	Mar	-4.93399	-5.081712	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 30-S	2925-2012	54	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356
Peak Day M	Zone 30-S	2925-2012	54	May	-4.504243	-4.534317	-4.943542	-5.039975	-5.168415	-5.124897	-5.565177	-5.731803
Peak Day M	Zone 30-S	2925-2012	54	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 30-S	2925-2012	54	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 30-S	2925-2012	54	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 30-S	2925-2012	54	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 30-S	2925-2012	54	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.217933	-5.225263	-5.610445	-5.980553
Peak Day M	Zone 30-W	2925-2012	0	Nov	-2.737523	-2.597935	-2.581686	-2.444508	-2.282069	-2.126406	-2.027925	-1.951069
Peak Day M	Zone 30-W	2925-2012	0	Dec	-2.767154	-2.653279	-2.596301	-2.457087	-2.399725	-2.356419	-2.243113	-2.118465
Peak Day M	Zone 30-W	2925-2012	0	Jan	-2.945346	-2.770895	-2.717781	-2.561596	-2.398068	-2.18926	-2.093122	-2.002255
Peak Day M	Zone 30-W	2925-2012	0	Feb	-2.930659	-2.736642	-2.692214	-2.541847	-2.378705	-2.166268	-2.073763	-1.988643
Peak Day M	Zone 30-W	2925-2012	0	Mar	-2.849409	-2.699407	-2.620147	-2.489587	-2.300084	-2.079034	-2.02748	-1.957583
Peak Day M	Zone 30-W	2925-2012	0	Apr	-2.676902	-2.474426	-2.457475	-2.315404	-2.165849	-2.004201	-1.983212	-1.888994
Peak Day M	Zone 30-W	2925-2012	0	May	-2.56704	-2.386981	-2.403818	-2.263695	-2.144239	-1.963935	-1.950959	-1.856319
Peak Day M	Zone 30-W	2925-2012	0	Jun	-2.484988	-2.305326	-2.336629	-2.202555	-2.064382	-1.912594	-1.90218	-1.812441
Peak Day M	Zone 30-W	2925-2012	0	Jul	-2.426839	-2.241076	-2.243247	-2.104025	-1.996607	-1.842884	-1.831215	-1.75152

Data Item	Area	Scenario	Draw	Month	2028	2029	2030	2031	2032	2033
Peak Day M	Zone 30-S	2925-2012	51	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 30-S	2925-2012	51	Dec	-500	-500	-500	-500	-500	
Peak Day M	Zone 30-S	2925-2012	51	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 30-S	2925-2012	51	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 30-S	2925-2012	51	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 30-S	2925-2012	51	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 30-S	2925-2012	51	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 30-S	2925-2012	51	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 30-S	2925-2012	51	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 30-S	2925-2012	51	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 30-S	2925-2012	51	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 30-S	2925-2012	51	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 30-S	2925-2012	52	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 30-S	2925-2012	52	Dec	-500	-500	-500	-500	-500	
Peak Day M	Zone 30-S	2925-2012	52	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 30-S	2925-2012	52	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 30-S	2925-2012	52	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 30-S	2925-2012	52	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 30-S	2925-2012	52	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 30-S	2925-2012	52	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 30-S	2925-2012	52	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 30-S	2925-2012	52	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 30-S	2925-2012	52	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 30-S	2925-2012	52	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 30-S	2925-2012	53	Nov	-6.293158	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 30-S	2925-2012	53	Dec	-500	-500	-500	-500	-500	
Peak Day M	Zone 30-S	2925-2012	53	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 30-S	2925-2012	53	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 30-S	2925-2012	53	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 30-S	2925-2012	53	Apr	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
Peak Day M	Zone 30-S	2925-2012	53	May	-5.720028	-5.602667	-5.64501	-5.334939	-5.388783	
Peak Day M	Zone 30-S	2925-2012	53	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 30-S	2925-2012	53	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 30-S	2925-2012	53	Aug	-5.31263	-5.158387	-5.262483	-4.993495	-5.044139	
Peak Day M	Zone 30-S	2925-2012	53	Sep	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Peak Day M	Zone 30-S	2925-2012	53	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 30-S	2925-2012	54	Nov	-6.278368	-6.250198	-6.388315	-6.054121	-6.105807	
Peak Day M	Zone 30-S	2925-2012	54	Dec	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Peak Day M	Zone 30-S	2925-2012	54	Jan	-6.105078	-6.174288	-6.252287	-500	-6.112323	-500
Peak Day M	Zone 30-S	2925-2012	54	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 30-S	2925-2012	54	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 30-S	2925-2012	54	Apr	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
Peak Day M	Zone 30-S	2925-2012	54	May	-5.720028	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 30-S	2925-2012	54	Jun	-5.6167	-5.488288	-5.493362	-5.232564	-5.285384	
Peak Day M	Zone 30-S	2925-2012	54	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 30-S	2925-2012	54	Aug	-5.31263	-5.158387	-5.262483	-4.993474	-5.037141	
Peak Day M	Zone 30-S	2925-2012	54	Sep	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Peak Day M	Zone 30-S	2925-2012	54	Oct	-5.757933	-5.726967	-5.85954	-5.785563	-5.640032	
Peak Day M	Zone 30-W	2925-2012	0	Nov	-1.830486	-1.67573	-1.582059	-1.382952	-1.290126	
Peak Day M	Zone 30-W	2925-2012	0	Dec	-1.971679	-1.939226	-2.072682	-3.611392	-2.556771	
Peak Day M	Zone 30-W	2925-2012	0	Jan	-1.893229	-1.768582	-1.654259	-1.479103	-1.379823	-1.287207
Peak Day M	Zone 30-W	2925-2012	0	Feb	-1.874768	-1.728669	-1.638874	-1.468179	-1.369632	-1.277701
Peak Day M	Zone 30-W	2925-2012	0	Mar	-1.81595	-1.633285	-1.547157	-1.354807	-1.263865	-1.179028
Peak Day M	Zone 30-W	2925-2012	0	Apr	-1.751791	-1.602953	-1.53038	-1.345223	-1.255336	
Peak Day M	Zone 30-W	2925-2012	0	May	-1.727504	-1.577991	-1.457462	-1.269781	-1.184722	
Peak Day M	Zone 30-W	2925-2012	0	Jun	-1.685114	-1.520937	-1.406173	-1.224893	-1.154329	
Peak Day M	Zone 30-W	2925-2012	0	Jul	-1.611617	-1.45742	-1.36396	-1.201912	-1.121465	

Data Item	Area	Scenario	Draw	Month	2012	2013	2014	2015	2016	2017	2018	2019
Peak Day M	Zone 30-W	2925-2012	0	Aug	-2.577906	-3.291034	-3.409837	-3.488101	-3.116805	-2.82988	-2.667288	-2.570511
Peak Day M	Zone 30-W	2925-2012	0	Sep	-2.58042	-3.318707	-3.448887	-3.524171	-3.145516	-2.860655	-2.695714	-2.596769
Peak Day M	Zone 30-W	2925-2012	0	Oct	-2.72702	-3.345898	-3.479483	-3.381324	-3.231325	-2.997211	-2.778685	-2.715255
Peak Day M	Zone 30-W	2925-2012	49	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 30-W	2925-2012	49	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 30-W	2925-2012	49	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 30-W	2925-2012	49	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 30-W	2925-2012	49	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 30-W	2925-2012	49	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 30-W	2925-2012	49	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 30-W	2925-2012	49	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 30-W	2925-2012	49	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 30-W	2925-2012	49	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 30-W	2925-2012	49	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 30-W	2925-2012	49	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 30-W	2925-2012	50	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 30-W	2925-2012	50	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 30-W	2925-2012	50	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 30-W	2925-2012	50	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 30-W	2925-2012	50	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 30-W	2925-2012	50	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 30-W	2925-2012	50	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 30-W	2925-2012	50	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 30-W	2925-2012	50	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 30-W	2925-2012	50	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 30-W	2925-2012	50	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 30-W	2925-2012	50	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 30-W	2925-2012	51	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 30-W	2925-2012	51	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 30-W	2925-2012	51	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 30-W	2925-2012	51	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 30-W	2925-2012	51	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 30-W	2925-2012	51	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 30-W	2925-2012	51	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 30-W	2925-2012	51	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 30-W	2925-2012	51	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 30-W	2925-2012	51	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 30-W	2925-2012	51	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 30-W	2925-2012	51	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 30-W	2925-2012	52	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 30-W	2925-2012	52	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 30-W	2925-2012	52	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone 30-W	2925-2012	52	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone 30-W	2925-2012	52	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 30-W	2925-2012	52	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 30-W	2925-2012	52	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 30-W	2925-2012	52	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 30-W	2925-2012	52	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 30-W	2925-2012	52	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone 30-W	2925-2012	52	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone 30-W	2925-2012	52	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 30-W	2925-2012	53	Nov	-3.246098	-3.840157	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone 30-W	2925-2012	53	Dec	-3.494101	-4.137303	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 30-W	2925-2012	53	Jan	-3.236205	-3.430731	-4.176443	-4.618098	-4.663178	-4.717219	-4.841214	-4.866403
Peak Day M	Zone 30-W	2925-2012	53	Feb	-2.864792	-3.460157	-4.10851	-4.647524	-4.692605	-4.686293	-4.807002	-4.910753
Peak Day M	Zone 30-W	2925-2012	53	Mar	-2.626653	-3.375013	-3.965561	-4.518481	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 30-W	2925-2012	53	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086

Data Item	Area	Scenario	Draw	Month	2020	2021	2022	2023	2024	2025	2026	2027
Peak Day M	Zone 30-W	2925-2012	0	Aug	-2.423896	-2.226254	-2.210093	-2.071382	-1.954948	-1.786355	-1.784335	-1.709905
Peak Day M	Zone 30-W	2925-2012	0	Sep	-2.45746	-2.25162	-2.251106	-2.109663	-1.982255	-1.802663	-1.805104	-1.729373
Peak Day M	Zone 30-W	2925-2012	0	Oct	-2.562388	-2.371945	-2.408017	-2.261941	-2.133762	-2.043387	-1.949026	-1.891785
Peak Day M	Zone 30-W	2925-2012	49	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 30-W	2925-2012	49	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone 30-W	2925-2012	49	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 30-W	2925-2012	49	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 30-W	2925-2012	49	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 30-W	2925-2012	49	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 30-W	2925-2012	49	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 30-W	2925-2012	49	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 30-W	2925-2012	49	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 30-W	2925-2012	49	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 30-W	2925-2012	49	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 30-W	2925-2012	49	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 30-W	2925-2012	50	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 30-W	2925-2012	50	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone 30-W	2925-2012	50	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 30-W	2925-2012	50	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 30-W	2925-2012	50	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 30-W	2925-2012	50	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 30-W	2925-2012	50	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 30-W	2925-2012	50	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 30-W	2925-2012	50	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 30-W	2925-2012	50	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 30-W	2925-2012	50	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 30-W	2925-2012	50	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 30-W	2925-2012	51	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 30-W	2925-2012	51	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone 30-W	2925-2012	51	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 30-W	2925-2012	51	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 30-W	2925-2012	51	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 30-W	2925-2012	51	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 30-W	2925-2012	51	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 30-W	2925-2012	51	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 30-W	2925-2012	51	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 30-W	2925-2012	51	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 30-W	2925-2012	51	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 30-W	2925-2012	51	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 30-W	2925-2012	52	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone 30-W	2925-2012	52	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone 30-W	2925-2012	52	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 30-W	2925-2012	52	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 30-W	2925-2012	52	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 30-W	2925-2012	52	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone 30-W	2925-2012	52	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone 30-W	2925-2012	52	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 30-W	2925-2012	52	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 30-W	2925-2012	52	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 30-W	2925-2012	52	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 30-W	2925-2012	52	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone 30-W	2925-2012	53	Nov	-5.034245	-5.134853	-5.536729	-5.685599	-5.746446	-5.741707	-5.961017	-6.175377
Peak Day M	Zone 30-W	2925-2012	53	Dec	-5.085482	-5.259947	-5.592441	-5.729815	-5.790661	-5.785602	-6.00531	-6.204803
Peak Day M	Zone 30-W	2925-2012	53	Jan	-5.053628	-5.126154	-5.358524	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 30-W	2925-2012	53	Feb	-5.041223	-5.096388	-5.38795	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 30-W	2925-2012	53	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 30-W	2925-2012	53	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356

Data Item	Area	Scenario	Draw	Month	2028	2029	2030	2031	2032	2033
Peak Day M	Zone 30-W	2925-2012	0	Aug	-1.572939	-1.410726	-1.329369	-1.157458	-1.079976	
Peak Day M	Zone 30-W	2925-2012	0	Sep	-1.585792	-1.422597	-1.340335	-1.162466	-1.084602	
Peak Day M	Zone 30-W	2925-2012	0	Oct	-1.784943	-1.609928	-1.533323	-1.332236	-1.242811	
Peak Day M	Zone 30-W	2925-2012	49	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 30-W	2925-2012	49	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone 30-W	2925-2012	49	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 30-W	2925-2012	49	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 30-W	2925-2012	49	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 30-W	2925-2012	49	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 30-W	2925-2012	49	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 30-W	2925-2012	49	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 30-W	2925-2012	49	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 30-W	2925-2012	49	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 30-W	2925-2012	49	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 30-W	2925-2012	49	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 30-W	2925-2012	50	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 30-W	2925-2012	50	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone 30-W	2925-2012	50	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 30-W	2925-2012	50	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 30-W	2925-2012	50	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 30-W	2925-2012	50	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 30-W	2925-2012	50	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 30-W	2925-2012	50	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 30-W	2925-2012	50	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 30-W	2925-2012	50	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 30-W	2925-2012	50	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 30-W	2925-2012	50	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 30-W	2925-2012	51	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 30-W	2925-2012	51	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone 30-W	2925-2012	51	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 30-W	2925-2012	51	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 30-W	2925-2012	51	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 30-W	2925-2012	51	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 30-W	2925-2012	51	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 30-W	2925-2012	51	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 30-W	2925-2012	51	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 30-W	2925-2012	51	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 30-W	2925-2012	51	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 30-W	2925-2012	51	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 30-W	2925-2012	52	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 30-W	2925-2012	52	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone 30-W	2925-2012	52	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 30-W	2925-2012	52	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 30-W	2925-2012	52	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 30-W	2925-2012	52	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone 30-W	2925-2012	52	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 30-W	2925-2012	52	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 30-W	2925-2012	52	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 30-W	2925-2012	52	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone 30-W	2925-2012	52	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone 30-W	2925-2012	52	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 30-W	2925-2012	53	Nov	-6.293158	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone 30-W	2925-2012	53	Dec	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Peak Day M	Zone 30-W	2925-2012	53	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone 30-W	2925-2012	53	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 30-W	2925-2012	53	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 30-W	2925-2012	53	Apr	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	

Data Item	Area	Scenario	Draw	Month	2012	2013	2014	2015	2016	2017	2018	2019
Peak Day M	Zone 30-W	2925-2012	53	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 30-W	2925-2012	53	Jun	-2.694735	-3.306425	-3.74904	-4.118367	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 30-W	2925-2012	53	Jul	-2.470053	-3.334913	-3.761162	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 30-W	2925-2012	53	Aug	-2.577906	-3.363402	-3.782681	-4.197859	-4.034961	-3.991667	-4.070797	-4.249651
Peak Day M	Zone 30-W	2925-2012	53	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.078371	-4.059129	-4.114207	-4.304532
Peak Day M	Zone 30-W	2925-2012	53	Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone 30-W	2925-2012	54	Nov	-3.048893	-3.825197	-4.287353	-4.476101	-4.549675	-4.608058	-4.703142	-4.887862
Peak Day M	Zone 30-W	2925-2012	54	Dec	-3.371432	-3.991424	-4.497817	-4.661294	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone 30-W	2925-2012	54	Jan	-3.158363	-3.760866	-4.176443	-4.707812	-4.693467	-4.702324	-4.841214	-4.957907
Peak Day M	Zone 30-W	2925-2012	54	Feb	-2.864792	-3.525783	-4.153922	-4.6714	-4.6738	-4.686745	-4.807002	-4.943175
Peak Day M	Zone 30-W	2925-2012	54	Mar	-2.626653	-3.472158	-4.047773	-4.538951	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone 30-W	2925-2012	54	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone 30-W	2925-2012	54	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone 30-W	2925-2012	54	Jun	-2.694735	-3.306396	-3.74904	-4.118339	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone 30-W	2925-2012	54	Jul	-2.470053	-3.334913	-3.761141	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone 30-W	2925-2012	54	Aug	-2.577906	-3.363431	-3.782681	-4.197859	-4.034961	-3.991667	-4.070825	-4.249651
Peak Day M	Zone 30-W	2925-2012	54	Sep	-2.58042	-3.406841	-3.826091	-4.233675	-4.078371	-4.059129	-4.114235	-4.304532
Peak Day M	Zone 30-W	2925-2012	54	Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone GTN	2925-2012	0	Nov	-2.973043	-3.567307	-3.659005	-3.630299	-3.408532	-3.188933	-3.006518	-2.881147
Peak Day M	Zone GTN	2925-2012	0	Dec	-3.494101	-3.985103	-3.987546	-4.052006	-3.807949	-3.598734	-3.417656	-3.250407
Peak Day M	Zone GTN	2925-2012	0	Jan	-3.55218	-3.79104	-4.150609	-4.285967	-4.048302	-3.824838	-3.622766	-3.437543
Peak Day M	Zone GTN	2925-2012	0	Feb	-3.187599	-3.441945	-3.800829	-4.001321	-3.731557	-3.500624	-3.283348	-3.111065
Peak Day M	Zone GTN	2925-2012	0	Mar	-2.557836	-3.293701	-3.538148	-3.770825	-3.419487	-3.142657	-2.945937	-3.004289
Peak Day M	Zone GTN	2925-2012	0	Apr	-2.389349	-3.224604	-3.41097	-3.55946	-3.290865	-3.033505	-2.850073	-2.802765
Peak Day M	Zone GTN	2925-2012	0	May	-1.94917	-3.245818	-3.422959	-3.52444	-3.282736	-3.026515	-2.827377	-2.754862
Peak Day M	Zone GTN	2925-2012	0	Jun	-2.65134	-3.251783	-3.404609	-3.480766	-3.243824	-2.98789	-2.776709	-2.649412
Peak Day M	Zone GTN	2925-2012	0	Jul	-2.4304	-3.217337	-3.377712	-3.428834	-3.181986	-2.854808	-2.655897	-2.587204
Peak Day M	Zone GTN	2925-2012	0	Aug	-2.536457	-3.238619	-3.389755	-3.472706	-3.123023	-2.839903	-2.666051	-2.53315
Peak Day M	Zone GTN	2925-2012	0	Sep	-2.538929	-3.265816	-3.394542	-3.479013	-3.136195	-2.888107	-2.691547	-2.577327
Peak Day M	Zone GTN	2925-2012	0	Oct	-2.683088	-3.292539	-3.463012	-3.381324	-3.231325	-2.997211	-2.778685	-2.715255
Peak Day M	Zone GTN	2925-2012	49	Nov	-3.166963	-3.736372	-4.149028	-4.456559	-4.530002	-4.608058	-4.703142	-4.964928
Peak Day M	Zone GTN	2925-2012	49	Dec	-3.494101	-4.201672	-4.551578	-5.00726	-5.094422	-5.212276	-5.35895	-5.517759
Peak Day M	Zone GTN	2925-2012	49	Jan	-3.55218	-3.79104	-4.405216	-4.924679	-5.035884	-5.150977	-5.281905	-5.425907
Peak Day M	Zone GTN	2925-2012	49	Feb	-3.187599	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone GTN	2925-2012	49	Mar	-2.557836	-3.293701	-3.875528	-4.39047	-4.310319	-4.288636	-4.352305	-4.8052
Peak Day M	Zone GTN	2925-2012	49	Apr	-2.389349	-3.224604	-3.692765	-4.171879	-4.17572	-4.167155	-4.238624	-4.512625
Peak Day M	Zone GTN	2925-2012	49	May	-1.94917	-3.26736	-3.730339	-4.158249	-4.193049	-4.185147	-4.232777	-4.464935
Peak Day M	Zone GTN	2925-2012	49	Jun	-2.65134	-3.25389	-3.734966	-4.133976	-4.170846	-4.159157	-4.184512	-4.322527
Peak Day M	Zone GTN	2925-2012	49	Jul	-2.4304	-3.281832	-3.746995	-4.099326	-4.118489	-4.00028	-4.029011	-4.249047
Peak Day M	Zone GTN	2925-2012	49	Aug	-2.536457	-3.309774	-3.768195	-4.179331	-4.069	-4.005805	-4.071256	-4.187885
Peak Day M	Zone GTN	2925-2012	49	Sep	-2.538929	-3.375637	-3.79856	-4.214709	-4.113282	-4.100835	-4.137469	-4.289198
Peak Day M	Zone GTN	2925-2012	49	Oct	-2.683088	-3.425846	-3.900899	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone GTN	2925-2012	50	Nov	-3.166963	-3.736372	-4.149028	-4.456559	-4.530002	-4.608058	-4.703142	-4.964928
Peak Day M	Zone GTN	2925-2012	50	Dec	-3.494101	-4.201672	-4.551578	-5.00726	-5.094422	-5.212276	-5.35895	-5.517759
Peak Day M	Zone GTN	2925-2012	50	Jan	-3.55218	-3.79104	-4.405216	-4.924679	-5.035884	-5.150977	-5.281905	-5.425907
Peak Day M	Zone GTN	2925-2012	50	Feb	-3.187599	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone GTN	2925-2012	50	Mar	-2.557836	-3.293701	-3.875528	-4.39047	-4.310319	-4.288636	-4.352305	-4.8052
Peak Day M	Zone GTN	2925-2012	50	Apr	-2.389349	-3.224604	-3.692765	-4.171879	-4.17572	-4.167155	-4.238624	-4.512625
Peak Day M	Zone GTN	2925-2012	50	May	-1.94917	-3.26736	-3.730339	-4.158249	-4.193049	-4.185147	-4.232777	-4.464935
Peak Day M	Zone GTN	2925-2012	50	Jun	-2.65134	-3.25389	-3.734966	-4.133976	-4.170846	-4.159157	-4.184512	-4.322527
Peak Day M	Zone GTN	2925-2012	50	Jul	-2.4304	-3.281832	-3.746995	-4.099326	-4.118489	-4.00028	-4.029011	-4.249047
Peak Day M	Zone GTN	2925-2012	50	Aug	-2.536457	-3.309774	-3.768195	-4.179331	-4.069	-4.005805	-4.071256	-4.187885
Peak Day M	Zone GTN	2925-2012	50	Sep	-2.538929	-3.375637	-3.79856	-4.214709	-4.113282	-4.100835	-4.137469	-4.289198
Peak Day M	Zone GTN	2925-2012	50	Oct	-2.683088	-3.425846	-3.900899	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone GTN	2925-2012	51	Nov	-3.166963	-3.736372	-4.149028	-4.456559	-4.530002	-4.608058	-4.703142	-4.964928
Peak Day M	Zone GTN	2925-2012	51	Dec	-3.494101	-4.201672	-4.551578	-5.00726	-5.094422	-5.212276	-5.35895	-5.517759
Peak Day M	Zone GTN	2925-2012	51	Jan	-3.55218	-3.79104	-4.405216	-4.924679	-5.035884	-5.150977	-5.281905	-5.425907

Data Item	Area	Scenario	Draw	Month	2020	2021	2022	2023	2024	2025	2026	2027
Peak Day M	Zone 30-W	2925-2012	53	May	-4.504243	-4.534317	-4.943542	-5.039975	-5.116632	-5.124897	-5.511628	-5.677511
Peak Day M	Zone 30-W	2925-2012	53	Jun	-4.389208	-4.408269	-4.837258	-4.987371	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 30-W	2925-2012	53	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 30-W	2925-2012	53	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 30-W	2925-2012	53	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.431068
Peak Day M	Zone 30-W	2925-2012	53	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.231716	-5.246173	-5.610445	-5.980553
Peak Day M	Zone 30-W	2925-2012	54	Nov	-4.997856	-5.134853	-5.550738	-5.650587	-5.71944	-5.741387	-5.961017	-6.160453
Peak Day M	Zone 30-W	2925-2012	54	Dec	-5.034237	-5.177797	-5.592441	-5.694802	-5.76379	-5.785602	-6.00531	-6.204803
Peak Day M	Zone 30-W	2925-2012	54	Jan	-4.976563	-5.063692	-5.443269	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone 30-W	2925-2012	54	Feb	-5.006018	-5.096388	-5.42785	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone 30-W	2925-2012	54	Mar	-4.93399	-5.081712	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone 30-W	2925-2012	54	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356
Peak Day M	Zone 30-W	2925-2012	54	May	-4.504243	-4.534317	-4.943542	-5.039975	-5.168415	-5.124897	-5.565177	-5.731803
Peak Day M	Zone 30-W	2925-2012	54	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone 30-W	2925-2012	54	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone 30-W	2925-2012	54	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone 30-W	2925-2012	54	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone 30-W	2925-2012	54	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.217933	-5.225263	-5.610445	-5.980553
Peak Day M	Zone GTN	2925-2012	0	Nov	-2.726311	-2.597935	-2.581686	-2.444508	-2.282069	-2.126406	-2.027925	-1.951069
Peak Day M	Zone GTN	2925-2012	0	Dec	-3.088339	-2.926091	-2.893437	-2.724606	-2.562127	-2.356419	-2.243113	-120.1731
Peak Day M	Zone GTN	2925-2012	0	Jan	-3.268343	-3.115511	-3.043486	-2.882996	-2.692879	-2.473371	-2.333685	-2.216753
Peak Day M	Zone GTN	2925-2012	0	Feb	-2.930659	-2.736642	-2.692214	-2.541847	-2.378705	-2.166268	-2.073763	-1.988643
Peak Day M	Zone GTN	2925-2012	0	Mar	-2.792502	-2.64647	-2.569853	-2.442655	-2.291125	-2.07084	-2.019721	-1.950265
Peak Day M	Zone GTN	2925-2012	0	Apr	-2.622931	-2.425289	-2.409934	-2.27141	-2.165849	-2.004201	-1.949239	-1.873956
Peak Day M	Zone GTN	2925-2012	0	May	-2.557597	-2.378721	-2.394375	-2.255037	-2.169271	-2.01313	-1.965861	-1.88772
Peak Day M	Zone GTN	2925-2012	0	Jun	-2.476405	-2.331711	-2.374748	-2.25248	-2.117145	-1.981804	-1.928854	-1.853009
Peak Day M	Zone GTN	2925-2012	0	Jul	-2.418824	-2.234328	-2.235509	-2.151922	-2.0439	-1.837414	-1.825087	-1.745605
Peak Day M	Zone GTN	2925-2012	0	Aug	-2.389238	-2.224807	-2.219362	-2.098641	-1.98267	-1.826966	-1.779442	-1.716176
Peak Day M	Zone GTN	2925-2012	0	Sep	-2.448785	-2.244471	-2.243012	-2.126944	-2.03014	-1.846756	-1.807836	-1.744195
Peak Day M	Zone GTN	2925-2012	0	Oct	-2.562388	-2.371945	-2.408017	-2.252886	-2.125319	-2.03546	-1.941595	-1.884758
Peak Day M	Zone GTN	2925-2012	49	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone GTN	2925-2012	49	Dec	-5.675757	-5.821842	-6.232472	-6.353658	-6.468364	-500	-500	-500
Peak Day M	Zone GTN	2925-2012	49	Jan	-5.58503	-5.763694	-6.095603	-6.251197	-6.32135	-6.285732	-6.420705	-6.602851
Peak Day M	Zone GTN	2925-2012	49	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone GTN	2925-2012	49	Mar	-4.835451	-4.961171	-5.215541	-5.366941	-5.449885	-5.332843	-5.630896	-5.88645
Peak Day M	Zone GTN	2925-2012	49	Apr	-4.571967	-4.576711	-4.923444	-5.023808	-5.182835	-5.195488	-5.470461	-5.693666
Peak Day M	Zone GTN	2925-2012	49	May	-4.487674	-4.518626	-4.924122	-5.020698	-5.228751	-5.253271	-5.553727	-5.773551
Peak Day M	Zone GTN	2925-2012	49	Jun	-4.374048	-4.458723	-4.916171	-5.048289	-5.136977	-5.205848	-5.485345	-5.705
Peak Day M	Zone GTN	2925-2012	49	Jul	-4.300698	-4.30086	-4.658635	-4.854927	-4.992171	-4.858592	-5.224695	-5.409996
Peak Day M	Zone GTN	2925-2012	49	Aug	-4.276289	-4.310957	-4.655681	-4.766142	-4.874758	-4.863027	-5.127834	-5.35409
Peak Day M	Zone GTN	2925-2012	49	Sep	-4.411955	-4.377923	-4.73652	-4.862478	-5.024598	-4.948329	-5.244234	-5.477619
Peak Day M	Zone GTN	2925-2012	49	Oct	-4.647273	-4.657272	-5.118707	-5.184581	-5.235909	-5.490153	-5.669624	-5.958337
Peak Day M	Zone GTN	2925-2012	50	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone GTN	2925-2012	50	Dec	-5.675757	-5.821842	-6.232472	-6.353658	-6.468364	-500	-500	-500
Peak Day M	Zone GTN	2925-2012	50	Jan	-5.58503	-5.763694	-6.095603	-6.251197	-6.32135	-6.285732	-6.420705	-6.602851
Peak Day M	Zone GTN	2925-2012	50	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone GTN	2925-2012	50	Mar	-4.835451	-4.961171	-5.215541	-5.366941	-5.449885	-5.332843	-5.630896	-5.88645
Peak Day M	Zone GTN	2925-2012	50	Apr	-4.571967	-4.576711	-4.923444	-5.023808	-5.182835	-5.195488	-5.470461	-5.693666
Peak Day M	Zone GTN	2925-2012	50	May	-4.487674	-4.518626	-4.924122	-5.020698	-5.228751	-5.253271	-5.553727	-5.773551
Peak Day M	Zone GTN	2925-2012	50	Jun	-4.374048	-4.458723	-4.916171	-5.048289	-5.136977	-5.205848	-5.485345	-5.705
Peak Day M	Zone GTN	2925-2012	50	Jul	-4.300698	-4.30086	-4.658635	-4.854927	-4.992171	-4.858592	-5.224695	-5.409996
Peak Day M	Zone GTN	2925-2012	50	Aug	-4.276289	-4.310957	-4.655681	-4.766142	-4.874758	-4.863027	-5.127834	-5.35409
Peak Day M	Zone GTN	2925-2012	50	Sep	-4.411955	-4.377923	-4.73652	-4.862478	-5.024598	-4.948329	-5.244234	-5.477619
Peak Day M	Zone GTN	2925-2012	50	Oct	-4.647273	-4.657272	-5.118707	-5.184581	-5.235909	-5.490153	-5.669624	-5.958337
Peak Day M	Zone GTN	2925-2012	51	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone GTN	2925-2012	51	Dec	-5.675757	-5.821842	-6.232472	-6.353658	-6.468364	-500	-500	-500
Peak Day M	Zone GTN	2925-2012	51	Jan	-5.58503	-5.763694	-6.095603	-6.251197	-6.32135	-6.285732	-6.420705	-6.602851

Data Item	Area	Scenario	Draw	Month	2028	2029	2030	2031	2032	2033
Peak Day M	Zone 30-W	2925-2012	53	May	-5.720028	-5.602667	-5.64501	-5.334939	-5.388783	
Peak Day M	Zone 30-W	2925-2012	53	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone 30-W	2925-2012	53	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 30-W	2925-2012	53	Aug	-5.31263	-5.158387	-5.262483	-4.993495	-5.044139	
Peak Day M	Zone 30-W	2925-2012	53	Sep	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Peak Day M	Zone 30-W	2925-2012	53	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone 30-W	2925-2012	54	Nov	-6.278368	-6.250198	-6.388315	-6.054121	-6.105807	
Peak Day M	Zone 30-W	2925-2012	54	Dec	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Peak Day M	Zone 30-W	2925-2012	54	Jan	-6.105078	-6.174288	-6.252287	-6.77634	-6.112323	-500
Peak Day M	Zone 30-W	2925-2012	54	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone 30-W	2925-2012	54	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone 30-W	2925-2012	54	Apr	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
Peak Day M	Zone 30-W	2925-2012	54	May	-5.720028	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone 30-W	2925-2012	54	Jun	-5.6167	-5.488288	-5.493362	-5.232564	-5.285384	
Peak Day M	Zone 30-W	2925-2012	54	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone 30-W	2925-2012	54	Aug	-5.31263	-5.158387	-5.262483	-4.993474	-5.037141	
Peak Day M	Zone 30-W	2925-2012	54	Sep	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Peak Day M	Zone 30-W	2925-2012	54	Oct	-5.757933	-5.726967	-5.85954	-5.785563	-5.640032	
Peak Day M	Zone GTN	2925-2012	0	Nov	-1.830486	-1.67573	-1.582059	-1.382952	-1.290126	
Peak Day M	Zone GTN	2925-2012	0	Dec	-500	-500	-500	-500	-500	
Peak Day M	Zone GTN	2925-2012	0	Jan	-2.075964	-1.920284	-1.7839	-1.656098	-1.587004	-1.499763
Peak Day M	Zone GTN	2925-2012	0	Feb	-1.874768	-1.728669	-1.638874	-1.468179	-1.562618	-1.476707
Peak Day M	Zone GTN	2925-2012	0	Mar	-1.809177	-1.627107	-1.541382	-1.349604	-1.259037	-1.179028
Peak Day M	Zone GTN	2925-2012	0	Apr	-1.745155	-1.596851	-1.524655	-1.340056	-1.250541	
Peak Day M	Zone GTN	2925-2012	0	May	-1.767137	-1.626131	-1.549548	-1.355385	-1.264737	
Peak Day M	Zone GTN	2925-2012	0	Jun	-1.724684	-1.596927	-1.515821	-1.326435	-1.237727	
Peak Day M	Zone GTN	2925-2012	0	Jul	-1.63908	-1.519447	-1.453776	-1.200009	-1.199172	
Peak Day M	Zone GTN	2925-2012	0	Aug	-1.587202	-1.45618	-1.402819	-1.233797	-1.151299	
Peak Day M	Zone GTN	2925-2012	0	Sep	-1.619215	-1.475478	-1.428706	-1.242914	-1.159803	
Peak Day M	Zone GTN	2925-2012	0	Oct	-1.778385	-1.60394	-1.527709	-1.3272	-1.238138	
Peak Day M	Zone GTN	2925-2012	49	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.970232	
Peak Day M	Zone GTN	2925-2012	49	Dec	-500	-500	-500	-500	-500	
Peak Day M	Zone GTN	2925-2012	49	Jan	-6.694339	-6.703895	-6.742267	-6.77634	-7.030092	-7.192493
Peak Day M	Zone GTN	2925-2012	49	Feb	-6.085669	-6.611779	-6.728655	-6.716583	-6.968008	-7.12892
Peak Day M	Zone GTN	2925-2012	49	Mar	-5.91173	-5.756035	-5.903251	-5.595789	-5.651545	-5.729627
Peak Day M	Zone GTN	2925-2012	49	Apr	-5.740378	-5.686493	-5.877943	-5.593074	-5.650662	
Peak Day M	Zone GTN	2925-2012	49	May	-5.85126	-5.829194	-6.013561	-5.694599	-5.752736	
Peak Day M	Zone GTN	2925-2012	49	Jun	-5.748594	-5.762498	-5.921716	-5.609955	-5.667245	
Peak Day M	Zone GTN	2925-2012	49	Jul	-5.499521	-5.519301	-5.717021	-5.108937	-5.527151	
Peak Day M	Zone GTN	2925-2012	49	Aug	-5.360803	-5.324594	-5.553245	-5.287651	-5.341718	
Peak Day M	Zone GTN	2925-2012	49	Sep	-5.505225	-5.430964	-5.693257	-5.362074	-5.416885	
Peak Day M	Zone GTN	2925-2012	49	Oct	-6.08652	-5.942991	-6.12818	-5.763695	-5.821129	
Peak Day M	Zone GTN	2925-2012	50	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.970232	
Peak Day M	Zone GTN	2925-2012	50	Dec	-500	-500	-500	-500	-500	
Peak Day M	Zone GTN	2925-2012	50	Jan	-6.694339	-6.703895	-6.742267	-6.77634	-7.030092	-7.192493
Peak Day M	Zone GTN	2925-2012	50	Feb	-6.085669	-6.611779	-6.728655	-6.716583	-6.968008	-7.12892
Peak Day M	Zone GTN	2925-2012	50	Mar	-5.91173	-5.756035	-5.903251	-5.595789	-5.651545	-5.729627
Peak Day M	Zone GTN	2925-2012	50	Apr	-5.740378	-5.686493	-5.877943	-5.593074	-5.650662	
Peak Day M	Zone GTN	2925-2012	50	May	-5.85126	-5.829194	-6.013561	-5.694599	-5.752736	
Peak Day M	Zone GTN	2925-2012	50	Jun	-5.748594	-5.762498	-5.921716	-5.609955	-5.667245	
Peak Day M	Zone GTN	2925-2012	50	Jul	-5.499521	-5.519301	-5.717021	-5.108937	-5.527151	
Peak Day M	Zone GTN	2925-2012	50	Aug	-5.360803	-5.324594	-5.553245	-5.287651	-5.341718	
Peak Day M	Zone GTN	2925-2012	50	Sep	-5.505225	-5.430964	-5.693257	-5.362074	-5.416885	
Peak Day M	Zone GTN	2925-2012	50	Oct	-6.08652	-5.942991	-6.12818	-5.763695	-5.821129	
Peak Day M	Zone GTN	2925-2012	51	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.970232	
Peak Day M	Zone GTN	2925-2012	51	Dec	-500	-500	-500	-500	-500	
Peak Day M	Zone GTN	2925-2012	51	Jan	-6.694339	-6.703895	-6.742267	-6.77634	-7.030092	-7.192493

Data Item	Area	Scenario	Draw	Month	2012	2013	2014	2015	2016	2017	2018	2019
Peak Day M	Zone GTN	2925-2012	51	Feb	-3.187599	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone GTN	2925-2012	51	Mar	-2.557836	-3.293701	-3.875528	-4.39047	-4.310319	-4.288636	-4.352305	-4.8052
Peak Day M	Zone GTN	2925-2012	51	Apr	-2.389349	-3.224604	-3.692765	-4.171879	-4.17572	-4.167155	-4.238624	-4.512625
Peak Day M	Zone GTN	2925-2012	51	May	-1.94917	-3.26736	-3.730339	-4.158249	-4.193049	-4.185147	-4.232777	-4.464935
Peak Day M	Zone GTN	2925-2012	51	Jun	-2.65134	-3.25389	-3.734966	-4.133976	-4.170846	-4.159157	-4.184512	-4.322527
Peak Day M	Zone GTN	2925-2012	51	Jul	-2.4304	-3.281832	-3.746995	-4.099326	-4.118489	-4.00028	-4.029011	-4.249047
Peak Day M	Zone GTN	2925-2012	51	Aug	-2.536457	-3.309774	-3.768195	-4.179331	-4.069	-4.005805	-4.071256	-4.187885
Peak Day M	Zone GTN	2925-2012	51	Sep	-2.538929	-3.375637	-3.79856	-4.214709	-4.113282	-4.100835	-4.137469	-4.289198
Peak Day M	Zone GTN	2925-2012	51	Oct	-2.683088	-3.425846	-3.900899	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone GTN	2925-2012	52	Nov	-3.166963	-3.736372	-4.149028	-4.456559	-4.530002	-4.608058	-4.703142	-4.964928
Peak Day M	Zone GTN	2925-2012	52	Dec	-3.494101	-4.201672	-4.551578	-5.00726	-5.094422	-5.212276	-5.35895	-5.517759
Peak Day M	Zone GTN	2925-2012	52	Jan	-3.55218	-3.79104	-4.405216	-4.924679	-5.035884	-5.150977	-5.281905	-5.425907
Peak Day M	Zone GTN	2925-2012	52	Feb	-3.187599	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone GTN	2925-2012	52	Mar	-2.557836	-3.293701	-3.875528	-4.39047	-4.310319	-4.288636	-4.352305	-4.8052
Peak Day M	Zone GTN	2925-2012	52	Apr	-2.389349	-3.224604	-3.692765	-4.171879	-4.17572	-4.167155	-4.238624	-4.512625
Peak Day M	Zone GTN	2925-2012	52	May	-1.94917	-3.26736	-3.730339	-4.158249	-4.193049	-4.185147	-4.232777	-4.464935
Peak Day M	Zone GTN	2925-2012	52	Jun	-2.65134	-3.25389	-3.734966	-4.133976	-4.170846	-4.159157	-4.184512	-4.322527
Peak Day M	Zone GTN	2925-2012	52	Jul	-2.4304	-3.281832	-3.746995	-4.099326	-4.118489	-4.00028	-4.029011	-4.249047
Peak Day M	Zone GTN	2925-2012	52	Aug	-2.536457	-3.309774	-3.768195	-4.179331	-4.069	-4.005805	-4.071256	-4.187885
Peak Day M	Zone GTN	2925-2012	52	Sep	-2.538929	-3.375637	-3.79856	-4.214709	-4.113282	-4.100835	-4.137469	-4.289198
Peak Day M	Zone GTN	2925-2012	52	Oct	-2.683088	-3.425846	-3.900899	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone GTN	2925-2012	53	Nov	-3.166963	-3.751083	-4.149028	-4.456559	-4.530002	-4.588282	-4.703142	-4.944517
Peak Day M	Zone GTN	2925-2012	53	Dec	-3.494101	-4.201672	-4.551578	-5.00726	-5.094422	-5.212276	-5.35895	-5.517759
Peak Day M	Zone GTN	2925-2012	53	Jan	-3.55218	-3.79104	-4.405216	-4.924679	-5.035884	-5.150977	-5.281905	-5.425907
Peak Day M	Zone GTN	2925-2012	53	Feb	-2.792008	-3.770996	-4.016096	-4.547311	-4.672677	-4.686293	-4.786871	-4.910753
Peak Day M	Zone GTN	2925-2012	53	Mar	-2.557836	-3.293687	-3.875528	-4.420417	-4.216937	-4.196865	-4.352305	-4.727267
Peak Day M	Zone GTN	2925-2012	53	Apr	-2.389349	-3.224604	-3.692765	-4.171879	-4.17572	-4.167155	-4.216785	-4.512625
Peak Day M	Zone GTN	2925-2012	53	May	-1.94917	-3.26736	-3.730339	-4.158249	-4.193049	-4.185147	-4.232777	-4.464935
Peak Day M	Zone GTN	2925-2012	53	Jun	-2.65134	-3.253818	-3.734966	-4.133976	-4.170846	-4.159157	-4.184512	-4.322527
Peak Day M	Zone GTN	2925-2012	53	Jul	-2.4304	-3.281832	-3.74694	-4.099326	-4.118489	-4.00028	-4.11635	-4.249047
Peak Day M	Zone GTN	2925-2012	53	Aug	-2.536457	-3.309847	-3.768195	-4.179331	-4.069	-4.005805	-4.071256	-4.187885
Peak Day M	Zone GTN	2925-2012	53	Sep	-2.538929	-3.375637	-3.79856	-4.214709	-4.113282	-4.100835	-4.137469	-4.289198
Peak Day M	Zone GTN	2925-2012	53	Oct	-2.648777	-3.46359	-3.900899	-4.123549	-4.266176	-4.283998	-4.299768	-4.481983
Peak Day M	Zone GTN	2925-2012	54	Nov	-2.973043	-3.736372	-4.191961	-4.456559	-4.530002	-4.608058	-4.703142	-4.887862
Peak Day M	Zone GTN	2925-2012	54	Dec	-3.494101	-4.201672	-4.551578	-5.00726	-5.094422	-4.752032	-4.889282	-5.517759
Peak Day M	Zone GTN	2925-2012	54	Jan	-3.55218	-3.67465	-4.405216	-4.924679	-5.035884	-5.150977	-5.281905	-5.425907
Peak Day M	Zone GTN	2925-2012	54	Feb	-2.792008	-3.441945	-4.153922	-4.6714	-4.6738	-4.666828	-4.786871	-4.943175
Peak Day M	Zone GTN	2925-2012	54	Mar	-2.557836	-3.389214	-3.956371	-4.440547	-4.250796	-4.234008	-4.279809	-4.727267
Peak Day M	Zone GTN	2925-2012	54	Apr	-2.389349	-3.224604	-3.692765	-4.1492	-4.17572	-4.167155	-4.216785	-4.512625
Peak Day M	Zone GTN	2925-2012	54	May	-1.94917	-3.26736	-3.730339	-4.158249	-4.193049	-4.185147	-4.232777	-4.464935
Peak Day M	Zone GTN	2925-2012	54	Jun	-2.65134	-3.25379	-3.734966	-4.133976	-4.042657	-4.159157	-4.184512	-4.322527
Peak Day M	Zone GTN	2925-2012	54	Jul	-2.4304	-3.281832	-3.746919	-4.099326	-4.118489	-4.081066	-4.11635	-4.249047
Peak Day M	Zone GTN	2925-2012	54	Aug	-2.536457	-3.309875	-3.768195	-4.179331	-4.069	-4.005805	-4.071256	-4.187885
Peak Day M	Zone GTN	2925-2012	54	Sep	-2.538929	-3.352561	-3.79856	-4.214709	-4.113282	-4.100835	-4.137469	-4.289198
Peak Day M	Zone GTN	2925-2012	54	Oct	-2.606148	-3.425846	-3.900899	-4.123549	-4.266176	-4.250741	-4.299768	-4.548728
Peak Day M	Zone ME-O	2925-2012	0	Nov	-3.048893	-3.652112	-3.74249	-3.646219	-3.423335	-3.202678	-3.019323	-2.89316
Peak Day M	Zone ME-O	2925-2012	0	Dec	-3.575315	-4.007257	-3.940447	-3.793991	-3.543361	-3.294823	-3.131081	-2.967487
Peak Day M	Zone ME-O	2925-2012	0	Jan	-3.236205	-3.561319	-3.861422	-3.980058	-3.773036	-3.506995	-3.266619	-3.092604
Peak Day M	Zone ME-O	2925-2012	0	Feb	-2.864792	-3.525783	-3.888036	-4.018481	-3.747471	-3.500624	-3.283348	-3.111065
Peak Day M	Zone ME-O	2925-2012	0	Mar	-2.626653	-3.375013	-3.620755	-3.854612	-3.419487	-3.142657	-2.945937	-3.016896
Peak Day M	Zone ME-O	2925-2012	0	Apr	-2.455313	-3.30476	-3.491273	-3.619859	-3.3387	-3.099944	-2.896442	-2.861434
Peak Day M	Zone ME-O	2925-2012	0	May	-1.980674	-3.298306	-3.435821	-3.539922	-3.245493	-2.987417	-2.786197	-2.765667
Peak Day M	Zone ME-O	2925-2012	0	Jun	-2.694735	-3.304389	-3.417439	-3.461739	-3.156371	-2.902035	-2.692681	-2.659064
Peak Day M	Zone ME-O	2925-2012	0	Jul	-2.470053	-3.269375	-3.390402	-3.461765	-3.100222	-2.864868	-2.664662	-2.596237
Peak Day M	Zone ME-O	2925-2012	0	Aug	-2.577906	-3.291034	-3.409837	-3.488101	-3.116805	-2.82988	-2.667288	-2.570511
Peak Day M	Zone ME-O	2925-2012	0	Sep	-2.58042	-3.318707	-3.448887	-3.524171	-3.145516	-2.860655	-2.695714	-2.596769
Peak Day M	Zone ME-O	2925-2012	0	Oct	-2.72702	-3.345898	-3.479483	-3.381324	-3.231325	-2.997211	-2.778685	-2.715255

Data Item	Area	Scenario	Draw	Month	2020	2021	2022	2023	2024	2025	2026	2027
Peak Day M	Zone GTN	2925-2012	51	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone GTN	2925-2012	51	Mar	-4.835451	-4.961171	-5.215541	-5.366941	-5.449885	-5.332843	-5.630896	-5.88645
Peak Day M	Zone GTN	2925-2012	51	Apr	-4.571967	-4.576711	-4.923444	-5.023808	-5.182835	-5.195488	-5.470461	-5.693666
Peak Day M	Zone GTN	2925-2012	51	May	-4.487674	-4.518626	-4.924122	-5.020698	-5.228751	-5.253271	-5.553727	-5.773551
Peak Day M	Zone GTN	2925-2012	51	Jun	-4.374048	-4.458723	-4.916171	-5.048289	-5.136977	-5.205848	-5.485345	-5.705
Peak Day M	Zone GTN	2925-2012	51	Jul	-4.300698	-4.30086	-4.658635	-4.854927	-4.992171	-4.858592	-5.224695	-5.409996
Peak Day M	Zone GTN	2925-2012	51	Aug	-4.276289	-4.310957	-4.655681	-4.766142	-4.874758	-4.863027	-5.127834	-5.35409
Peak Day M	Zone GTN	2925-2012	51	Sep	-4.411955	-4.377923	-4.73652	-4.862478	-5.024598	-4.948329	-5.244234	-5.477619
Peak Day M	Zone GTN	2925-2012	51	Oct	-4.647273	-4.657272	-5.118707	-5.184581	-5.235909	-5.490153	-5.669624	-5.958337
Peak Day M	Zone GTN	2925-2012	52	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone GTN	2925-2012	52	Dec	-5.675757	-5.821842	-6.232472	-6.353658	-6.468364	-500	-500	-500
Peak Day M	Zone GTN	2925-2012	52	Jan	-5.58503	-5.763694	-6.095603	-6.251197	-6.32135	-6.285732	-6.420705	-6.602851
Peak Day M	Zone GTN	2925-2012	52	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone GTN	2925-2012	52	Mar	-4.835451	-4.961171	-5.215541	-5.366941	-5.449885	-5.332843	-5.630896	-5.88645
Peak Day M	Zone GTN	2925-2012	52	Apr	-4.571967	-4.576711	-4.923444	-5.023808	-5.182835	-5.195488	-5.470461	-5.693666
Peak Day M	Zone GTN	2925-2012	52	May	-4.487674	-4.518626	-4.924122	-5.020698	-5.228751	-5.253271	-5.553727	-5.773551
Peak Day M	Zone GTN	2925-2012	52	Jun	-4.374048	-4.458723	-4.916171	-5.048289	-5.136977	-5.205848	-5.485345	-5.705
Peak Day M	Zone GTN	2925-2012	52	Jul	-4.300698	-4.30086	-4.658635	-4.854927	-4.992171	-4.858592	-5.224695	-5.409996
Peak Day M	Zone GTN	2925-2012	52	Aug	-4.276289	-4.310957	-4.655681	-4.766142	-4.874758	-4.863027	-5.127834	-5.35409
Peak Day M	Zone GTN	2925-2012	52	Sep	-4.411955	-4.377923	-4.73652	-4.862478	-5.024598	-4.948329	-5.244234	-5.477619
Peak Day M	Zone GTN	2925-2012	52	Oct	-4.647273	-4.657272	-5.118707	-5.184581	-5.235909	-5.490153	-5.669624	-5.958337
Peak Day M	Zone GTN	2925-2012	53	Nov	-5.034245	-5.134853	-5.515302	-5.685599	-5.746446	-5.741707	-5.961017	-6.175377
Peak Day M	Zone GTN	2925-2012	53	Dec	-5.675757	-5.821842	-6.232472	-6.353658	-6.468364	-500	-500	-500
Peak Day M	Zone GTN	2925-2012	53	Jan	-5.58503	-5.763694	-6.095603	-6.251197	-6.32135	-6.285732	-6.420705	-6.602851
Peak Day M	Zone GTN	2925-2012	53	Feb	-5.041223	-5.096388	-5.38795	-5.548062	-5.599329	-5.54181	-5.743444	-5.962711
Peak Day M	Zone GTN	2925-2012	53	Mar	-4.913634	-5.039828	-5.296575	-5.366941	-5.449885	-5.255883	-5.551124	-5.80455
Peak Day M	Zone GTN	2925-2012	53	Apr	-4.571967	-4.576711	-4.923444	-5.023808	-5.182835	-5.195488	-5.470461	-5.693666
Peak Day M	Zone GTN	2925-2012	53	May	-4.487674	-4.518626	-4.924122	-5.020698	-5.228751	-5.253271	-5.553727	-5.773551
Peak Day M	Zone GTN	2925-2012	53	Jun	-4.374048	-4.458723	-4.916171	-5.048289	-5.136977	-5.205848	-5.485345	-5.705
Peak Day M	Zone GTN	2925-2012	53	Jul	-4.300698	-4.30086	-4.744337	-4.854927	-4.992171	-4.858592	-5.224695	-5.409996
Peak Day M	Zone GTN	2925-2012	53	Aug	-4.276289	-4.310957	-4.655681	-4.766142	-4.874758	-4.863027	-5.127834	-5.35409
Peak Day M	Zone GTN	2925-2012	53	Sep	-4.411955	-4.377923	-4.73652	-4.862478	-4.88981	-4.815485	-5.218838	-5.412702
Peak Day M	Zone GTN	2925-2012	53	Oct	-4.647273	-4.657272	-5.118707	-5.184581	-5.231716	-5.225263	-5.588888	-5.958337
Peak Day M	Zone GTN	2925-2012	54	Nov	-4.997856	-5.134853	-5.550738	-5.650587	-5.71944	-5.741387	-5.961017	-6.160453
Peak Day M	Zone GTN	2925-2012	54	Dec	-5.675757	-5.821842	-6.232472	-6.353658	-6.468364	-6.440508	-6.637316	-6.786354
Peak Day M	Zone GTN	2925-2012	54	Jan	-4.976563	-5.763694	-6.095603	-6.251197	-6.32135	-5.563705	-5.75884	-6.602851
Peak Day M	Zone GTN	2925-2012	54	Feb	-5.006018	-5.096388	-5.42785	-5.526615	-5.599329	-5.54181	-5.743444	-5.962711
Peak Day M	Zone GTN	2925-2012	54	Mar	-4.835451	-4.98212	-5.215541	-5.366941	-5.369596	-5.255883	-5.630896	-5.88645
Peak Day M	Zone GTN	2925-2012	54	Apr	-4.571967	-4.576711	-4.923444	-5.023808	-5.182835	-5.151503	-5.465844	-5.688913
Peak Day M	Zone GTN	2925-2012	54	May	-4.487674	-4.518626	-4.924122	-5.020698	-5.228751	-5.253271	-5.553727	-5.773551
Peak Day M	Zone GTN	2925-2012	54	Jun	-4.374048	-4.458723	-4.819141	-5.048289	-5.136977	-5.205848	-5.485345	-5.705
Peak Day M	Zone GTN	2925-2012	54	Jul	-4.300698	-4.35934	-4.744337	-4.854927	-4.992171	-5.033683	-5.285728	-5.503457
Peak Day M	Zone GTN	2925-2012	54	Aug	-4.276289	-4.310957	-4.655681	-4.766142	-4.874758	-4.863027	-5.127834	-5.35409
Peak Day M	Zone GTN	2925-2012	54	Sep	-4.411955	-4.377923	-4.73652	-4.862478	-5.024598	-4.948329	-5.244234	-5.412702
Peak Day M	Zone GTN	2925-2012	54	Oct	-4.647273	-4.657272	-5.118707	-5.184581	-5.217933	-5.225263	-5.588888	-5.958337
Peak Day M	Zone ME-O	2925-2012	0	Nov	-2.737523	-2.597935	-2.581686	-2.444508	-2.282069	-2.126406	-2.027925	-1.951069
Peak Day M	Zone ME-O	2925-2012	0	Dec	-2.767154	-2.653279	-2.596301	-2.457087	-2.399725	-2.356419	-2.243113	-2.118465
Peak Day M	Zone ME-O	2925-2012	0	Jan	-2.945346	-2.770895	-2.717781	-2.561596	-2.398068	-2.18926	-2.093122	-2.002255
Peak Day M	Zone ME-O	2925-2012	0	Feb	-2.930659	-2.736642	-2.692214	-2.541847	-2.378705	-2.166268	-2.073763	-1.988643
Peak Day M	Zone ME-O	2925-2012	0	Mar	-2.849409	-2.699407	-2.620147	-2.489587	-2.300084	-2.079034	-2.02748	-1.957583
Peak Day M	Zone ME-O	2925-2012	0	Apr	-2.676902	-2.474426	-2.457475	-2.315404	-2.165849	-2.004201	-1.983212	-1.888994
Peak Day M	Zone ME-O	2925-2012	0	May	-2.56704	-2.386981	-2.403818	-2.263695	-2.144239	-1.963935	-1.950959	-1.856319
Peak Day M	Zone ME-O	2925-2012	0	Jun	-2.484988	-2.305326	-2.336629	-2.202555	-2.064382	-1.912594	-1.90218	-1.812441
Peak Day M	Zone ME-O	2925-2012	0	Jul	-2.426839	-2.241076	-2.243247	-2.104025	-1.996607	-1.842884	-1.831215	-1.75152
Peak Day M	Zone ME-O	2925-2012	0	Aug	-2.423896	-2.226254	-2.210093	-2.071382	-1.954948	-1.786355	-1.784335	-1.709905
Peak Day M	Zone ME-O	2925-2012	0	Sep	-2.45746	-2.25162	-2.251106	-2.109663	-1.982255	-1.802663	-1.805104	-1.729373
Peak Day M	Zone ME-O	2925-2012	0	Oct	-2.562388	-2.371945	-2.408017	-2.261941	-2.133762	-2.043387	-1.949026	-1.891785

Data Item	Area	Scenario	Draw	Month	2028	2029	2030	2031	2032	2033
Peak Day M	Zone GTN	2925-2012	51	Feb	-6.085669	-6.611779	-6.728655	-6.716583	-6.968008	-7.12892
Peak Day M	Zone GTN	2925-2012	51	Mar	-5.91173	-5.756035	-5.903251	-5.595789	-5.651545	-5.729627
Peak Day M	Zone GTN	2925-2012	51	Apr	-5.740378	-5.686493	-5.877943	-5.593074	-5.650662	
Peak Day M	Zone GTN	2925-2012	51	May	-5.85126	-5.829194	-6.013561	-5.694599	-5.752736	
Peak Day M	Zone GTN	2925-2012	51	Jun	-5.748594	-5.762498	-5.921716	-5.609955	-5.667245	
Peak Day M	Zone GTN	2925-2012	51	Jul	-5.499521	-5.519301	-5.717021	-5.108937	-5.527151	
Peak Day M	Zone GTN	2925-2012	51	Aug	-5.360803	-5.324594	-5.553245	-5.287651	-5.341718	
Peak Day M	Zone GTN	2925-2012	51	Sep	-5.505225	-5.430964	-5.693257	-5.362074	-5.416885	
Peak Day M	Zone GTN	2925-2012	51	Oct	-6.08652	-5.942991	-6.12818	-5.763695	-5.821129	
Peak Day M	Zone GTN	2925-2012	52	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.970232	
Peak Day M	Zone GTN	2925-2012	52	Dec	-500	-500	-500	-500	-500	
Peak Day M	Zone GTN	2925-2012	52	Jan	-6.694339	-6.703895	-6.742267	-6.77634	-7.030092	-7.192493
Peak Day M	Zone GTN	2925-2012	52	Feb	-6.085669	-6.611779	-6.728655	-6.716583	-6.968008	-7.12892
Peak Day M	Zone GTN	2925-2012	52	Mar	-5.91173	-5.756035	-5.903251	-5.595789	-5.651545	-5.729627
Peak Day M	Zone GTN	2925-2012	52	Apr	-5.740378	-5.686493	-5.877943	-5.593074	-5.650662	
Peak Day M	Zone GTN	2925-2012	52	May	-5.85126	-5.829194	-6.013561	-5.694599	-5.752736	
Peak Day M	Zone GTN	2925-2012	52	Jun	-5.748594	-5.762498	-5.921716	-5.609955	-5.667245	
Peak Day M	Zone GTN	2925-2012	52	Jul	-5.499521	-5.519301	-5.717021	-5.108937	-5.527151	
Peak Day M	Zone GTN	2925-2012	52	Aug	-5.360803	-5.324594	-5.553245	-5.287651	-5.341718	
Peak Day M	Zone GTN	2925-2012	52	Sep	-5.505225	-5.430964	-5.693257	-5.362074	-5.416885	
Peak Day M	Zone GTN	2925-2012	52	Oct	-6.08652	-5.942991	-6.12818	-5.763695	-5.821129	
Peak Day M	Zone GTN	2925-2012	53	Nov	-6.293158	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone GTN	2925-2012	53	Dec	-500	-500	-500	-500	-500	
Peak Day M	Zone GTN	2925-2012	53	Jan	-6.694339	-6.703895	-6.742267	-6.77634	-7.030092	-7.192493
Peak Day M	Zone GTN	2925-2012	53	Feb	-6.085669	-6.611779	-6.728655	-6.716583	-6.968008	-7.12892
Peak Day M	Zone GTN	2925-2012	53	Mar	-5.831183	-5.679593	-5.82645	-5.525463	-5.582335	-5.639815
Peak Day M	Zone GTN	2925-2012	53	Apr	-5.740378	-5.686493	-5.877943	-5.593074	-5.650662	
Peak Day M	Zone GTN	2925-2012	53	May	-5.85126	-5.829194	-6.013561	-5.694599	-5.752736	
Peak Day M	Zone GTN	2925-2012	53	Jun	-5.748594	-5.762498	-5.921716	-5.609955	-5.667245	
Peak Day M	Zone GTN	2925-2012	53	Jul	-5.499521	-5.519301	-5.717021	-5.108937	-5.527151	
Peak Day M	Zone GTN	2925-2012	53	Aug	-5.360803	-5.324594	-5.553245	-5.287651	-5.341718	
Peak Day M	Zone GTN	2925-2012	53	Sep	-5.352397	-5.198461	-5.283764	-4.957688	-5.009216	
Peak Day M	Zone GTN	2925-2012	53	Oct	-6.08652	-5.942991	-6.12818	-5.763695	-5.821129	
Peak Day M	Zone GTN	2925-2012	54	Nov	-6.278368	-6.250198	-6.388315	-6.054121	-6.105807	
Peak Day M	Zone GTN	2925-2012	54	Dec	-6.837937	-500	-500	-500	-500	
Peak Day M	Zone GTN	2925-2012	54	Jan	-6.694339	-6.703895	-6.742267	-6.77634	-7.030092	-7.192493
Peak Day M	Zone GTN	2925-2012	54	Feb	-6.085669	-6.611779	-6.728655	-6.02496	-6.107447	-6.168203
Peak Day M	Zone GTN	2925-2012	54	Mar	-5.831183	-5.756035	-5.82645	-5.525463	-5.582335	-5.707858
Peak Day M	Zone GTN	2925-2012	54	Apr	-5.740378	-5.686493	-5.877943	-5.593074	-5.650662	
Peak Day M	Zone GTN	2925-2012	54	May	-5.85126	-5.829194	-6.013561	-5.694599	-5.752736	
Peak Day M	Zone GTN	2925-2012	54	Jun	-5.748594	-5.472335	-5.921716	-5.609955	-5.667245	
Peak Day M	Zone GTN	2925-2012	54	Jul	-5.499521	-5.519301	-5.717021	-5.471248	-5.527151	
Peak Day M	Zone GTN	2925-2012	54	Aug	-5.360803	-5.324594	-5.553245	-5.287651	-5.341718	
Peak Day M	Zone GTN	2925-2012	54	Sep	-5.505225	-5.430964	-5.693257	-5.362074	-5.416885	
Peak Day M	Zone GTN	2925-2012	54	Oct	-5.846715	-5.726967	-5.950861	-5.763695	-5.640032	
Peak Day M	Zone ME-O	2925-2012	0	Nov	-1.830486	-1.67573	-1.582059	-1.382952	-1.290126	
Peak Day M	Zone ME-O	2925-2012	0	Dec	-1.971679	-1.939226	-2.072682	-3.611392	-2.556771	
Peak Day M	Zone ME-O	2925-2012	0	Jan	-1.893229	-1.768582	-1.654259	-1.479103	-1.379823	-1.287207
Peak Day M	Zone ME-O	2925-2012	0	Feb	-1.874768	-1.728669	-1.638874	-1.468179	-1.369632	-1.277701
Peak Day M	Zone ME-O	2925-2012	0	Mar	-1.81595	-1.633285	-1.547157	-1.354807	-1.263865	-1.179028
Peak Day M	Zone ME-O	2925-2012	0	Apr	-1.751791	-1.602953	-1.53038	-1.345223	-1.255336	
Peak Day M	Zone ME-O	2925-2012	0	May	-1.727504	-1.577991	-1.457462	-1.269781	-1.184722	
Peak Day M	Zone ME-O	2925-2012	0	Jun	-1.685114	-1.520937	-1.406173	-1.224893	-1.154329	
Peak Day M	Zone ME-O	2925-2012	0	Jul	-1.611617	-1.45742	-1.36396	-1.201912	-1.121465	
Peak Day M	Zone ME-O	2925-2012	0	Aug	-1.572939	-1.410726	-1.329369	-1.157458	-1.079976	
Peak Day M	Zone ME-O	2925-2012	0	Sep	-1.585792	-1.422597	-1.340335	-1.162466	-1.084602	
Peak Day M	Zone ME-O	2925-2012	0	Oct	-1.784943	-1.609928	-1.533323	-1.332236	-1.242811	

Data Item	Area	Scenario	Draw	Month	2012	2013	2014	2015	2016	2017	2018	2019
Peak Day M	Zone ME-O	2925-2012	49	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone ME-O	2925-2012	49	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone ME-O	2925-2012	49	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone ME-O	2925-2012	49	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone ME-O	2925-2012	49	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone ME-O	2925-2012	49	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone ME-O	2925-2012	49	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone ME-O	2925-2012	49	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone ME-O	2925-2012	49	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone ME-O	2925-2012	49	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone ME-O	2925-2012	49	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone ME-O	2925-2012	49	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone ME-O	2925-2012	50	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone ME-O	2925-2012	50	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone ME-O	2925-2012	50	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone ME-O	2925-2012	50	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone ME-O	2925-2012	50	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone ME-O	2925-2012	50	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone ME-O	2925-2012	50	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone ME-O	2925-2012	50	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone ME-O	2925-2012	50	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone ME-O	2925-2012	50	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone ME-O	2925-2012	50	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone ME-O	2925-2012	50	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone ME-O	2925-2012	51	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone ME-O	2925-2012	51	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone ME-O	2925-2012	51	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone ME-O	2925-2012	51	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone ME-O	2925-2012	51	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone ME-O	2925-2012	51	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone ME-O	2925-2012	51	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone ME-O	2925-2012	51	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone ME-O	2925-2012	51	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone ME-O	2925-2012	51	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone ME-O	2925-2012	51	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone ME-O	2925-2012	51	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone ME-O	2925-2012	52	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone ME-O	2925-2012	52	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone ME-O	2925-2012	52	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone ME-O	2925-2012	52	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone ME-O	2925-2012	52	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone ME-O	2925-2012	52	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone ME-O	2925-2012	52	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone ME-O	2925-2012	52	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone ME-O	2925-2012	52	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone ME-O	2925-2012	52	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone ME-O	2925-2012	52	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone ME-O	2925-2012	52	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone ME-O	2925-2012	53	Nov	-3.246098	-3.840157	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone ME-O	2925-2012	53	Dec	-3.494101	-4.137303	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone ME-O	2925-2012	53	Jan	-3.236205	-3.430731	-4.176443	-4.618098	-4.663178	-4.717219	-4.841214	-4.866403
Peak Day M	Zone ME-O	2925-2012	53	Feb	-2.864792	-3.460157	-4.10851	-4.647524	-4.692605	-4.686293	-4.807002	-4.910753
Peak Day M	Zone ME-O	2925-2012	53	Mar	-2.626653	-3.375013	-3.965561	-4.518481	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone ME-O	2925-2012	53	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone ME-O	2925-2012	53	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone ME-O	2925-2012	53	Jun	-2.694735	-3.306425	-3.74904	-4.118367	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone ME-O	2925-2012	53	Jul	-2.470053	-3.334913	-3.761162	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883

Data Item	Area	Scenario	Draw	Month	2020	2021	2022	2023	2024	2025	2026	2027
Peak Day M	Zone ME-O	2925-2012	49	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone ME-O	2925-2012	49	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone ME-O	2925-2012	49	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone ME-O	2925-2012	49	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone ME-O	2925-2012	49	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone ME-O	2925-2012	49	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone ME-O	2925-2012	49	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone ME-O	2925-2012	49	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone ME-O	2925-2012	49	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone ME-O	2925-2012	49	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone ME-O	2925-2012	49	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone ME-O	2925-2012	49	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone ME-O	2925-2012	50	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone ME-O	2925-2012	50	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone ME-O	2925-2012	50	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone ME-O	2925-2012	50	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone ME-O	2925-2012	50	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone ME-O	2925-2012	50	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone ME-O	2925-2012	50	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone ME-O	2925-2012	50	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone ME-O	2925-2012	50	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone ME-O	2925-2012	50	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone ME-O	2925-2012	50	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone ME-O	2925-2012	50	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone ME-O	2925-2012	51	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone ME-O	2925-2012	51	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone ME-O	2925-2012	51	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone ME-O	2925-2012	51	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone ME-O	2925-2012	51	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone ME-O	2925-2012	51	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone ME-O	2925-2012	51	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone ME-O	2925-2012	51	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone ME-O	2925-2012	51	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone ME-O	2925-2012	51	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone ME-O	2925-2012	51	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone ME-O	2925-2012	51	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone ME-O	2925-2012	52	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone ME-O	2925-2012	52	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone ME-O	2925-2012	52	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone ME-O	2925-2012	52	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone ME-O	2925-2012	52	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone ME-O	2925-2012	52	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone ME-O	2925-2012	52	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone ME-O	2925-2012	52	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone ME-O	2925-2012	52	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone ME-O	2925-2012	52	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone ME-O	2925-2012	52	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone ME-O	2925-2012	52	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone ME-O	2925-2012	53	Nov	-5.034245	-5.134853	-5.536729	-5.685599	-5.746446	-5.741707	-5.961017	-6.175377
Peak Day M	Zone ME-O	2925-2012	53	Dec	-5.085482	-5.259947	-5.592441	-5.729815	-5.790661	-5.785602	-6.00531	-6.204803
Peak Day M	Zone ME-O	2925-2012	53	Jan	-5.053628	-5.126154	-5.358524	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone ME-O	2925-2012	53	Feb	-5.041223	-5.096388	-5.38795	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone ME-O	2925-2012	53	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone ME-O	2925-2012	53	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356
Peak Day M	Zone ME-O	2925-2012	53	May	-4.504243	-4.534317	-4.943542	-5.039975	-5.116632	-5.124897	-5.511628	-5.677511
Peak Day M	Zone ME-O	2925-2012	53	Jun	-4.389208	-4.408269	-4.837258	-4.987371	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone ME-O	2925-2012	53	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329

Data Item	Area	Scenario	Draw	Month	2028	2029	2030	2031	2032	2033
Peak Day M	Zone ME-O	2925-2012	49	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone ME-O	2925-2012	49	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone ME-O	2925-2012	49	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone ME-O	2925-2012	49	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone ME-O	2925-2012	49	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone ME-O	2925-2012	49	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone ME-O	2925-2012	49	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone ME-O	2925-2012	49	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone ME-O	2925-2012	49	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone ME-O	2925-2012	49	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone ME-O	2925-2012	49	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone ME-O	2925-2012	49	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone ME-O	2925-2012	50	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone ME-O	2925-2012	50	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone ME-O	2925-2012	50	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone ME-O	2925-2012	50	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone ME-O	2925-2012	50	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone ME-O	2925-2012	50	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone ME-O	2925-2012	50	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone ME-O	2925-2012	50	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone ME-O	2925-2012	50	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone ME-O	2925-2012	50	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone ME-O	2925-2012	50	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone ME-O	2925-2012	50	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone ME-O	2925-2012	51	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone ME-O	2925-2012	51	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone ME-O	2925-2012	51	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone ME-O	2925-2012	51	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone ME-O	2925-2012	51	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone ME-O	2925-2012	51	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone ME-O	2925-2012	51	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone ME-O	2925-2012	51	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone ME-O	2925-2012	51	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone ME-O	2925-2012	51	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone ME-O	2925-2012	51	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone ME-O	2925-2012	51	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone ME-O	2925-2012	52	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone ME-O	2925-2012	52	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone ME-O	2925-2012	52	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone ME-O	2925-2012	52	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone ME-O	2925-2012	52	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone ME-O	2925-2012	52	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone ME-O	2925-2012	52	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone ME-O	2925-2012	52	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone ME-O	2925-2012	52	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone ME-O	2925-2012	52	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone ME-O	2925-2012	52	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone ME-O	2925-2012	52	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone ME-O	2925-2012	53	Nov	-6.293158	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone ME-O	2925-2012	53	Dec	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Peak Day M	Zone ME-O	2925-2012	53	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone ME-O	2925-2012	53	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone ME-O	2925-2012	53	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone ME-O	2925-2012	53	Apr	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
Peak Day M	Zone ME-O	2925-2012	53	May	-5.720028	-5.602667	-5.64501	-5.334939	-5.388783	
Peak Day M	Zone ME-O	2925-2012	53	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone ME-O	2925-2012	53	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	

Data Item	Area	Scenario	Draw	Month	2012	2013	2014	2015	2016	2017	2018	2019
Peak Day M	Zone ME-O	2925-2012	53	Aug	-2.577906	-3.363402	-3.782681	-4.197859	-4.034961	-3.991667	-4.070797	-4.249651
Peak Day M	Zone ME-O	2925-2012	53	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.078371	-4.059129	-4.114207	-4.304532
Peak Day M	Zone ME-O	2925-2012	53	Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone ME-O	2925-2012	54	Nov	-3.048893	-3.825197	-4.287353	-4.476101	-4.549675	-4.608058	-4.703142	-4.887862
Peak Day M	Zone ME-O	2925-2012	54	Dec	-3.371432	-3.991424	-4.497817	-4.661294	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone ME-O	2925-2012	54	Jan	-3.158363	-3.760866	-4.176443	-4.707812	-4.693467	-4.702324	-4.841214	-4.957907
Peak Day M	Zone ME-O	2925-2012	54	Feb	-2.864792	-3.525783	-4.153922	-4.6714	-4.6738	-4.686745	-4.807002	-4.943175
Peak Day M	Zone ME-O	2925-2012	54	Mar	-2.626653	-3.472158	-4.047773	-4.538951	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone ME-O	2925-2012	54	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone ME-O	2925-2012	54	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone ME-O	2925-2012	54	Jun	-2.694735	-3.306396	-3.74904	-4.118339	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone ME-O	2925-2012	54	Jul	-2.470053	-3.334913	-3.761141	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone ME-O	2925-2012	54	Aug	-2.577906	-3.363431	-3.782681	-4.197859	-4.034961	-3.991667	-4.070825	-4.249651
Peak Day M	Zone ME-O	2925-2012	54	Sep	-2.58042	-3.406841	-3.826091	-4.233675	-4.078371	-4.059129	-4.114235	-4.304532
Peak Day M	Zone ME-O	2925-2012	54	Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone ME-W	2925-2012	0	Nov	-3.048893	-3.652112	-3.74249	-3.646219	-3.423335	-3.202678	-3.019323	-2.89316
Peak Day M	Zone ME-W	2925-2012	0	Dec	-3.575315	-4.007257	-3.940447	-3.793991	-3.543361	-3.294823	-3.131081	-2.967487
Peak Day M	Zone ME-W	2925-2012	0	Jan	-3.236205	-3.561319	-3.861422	-3.980058	-3.773036	-3.506995	-3.266619	-3.092604
Peak Day M	Zone ME-W	2925-2012	0	Feb	-2.864792	-3.525783	-3.888036	-4.018481	-3.747471	-3.500624	-3.283348	-3.111065
Peak Day M	Zone ME-W	2925-2012	0	Mar	-2.626653	-3.375013	-3.620755	-3.854612	-3.419487	-3.142657	-2.945937	-3.016896
Peak Day M	Zone ME-W	2925-2012	0	Apr	-2.455313	-3.30476	-3.491273	-3.619859	-3.3387	-3.099944	-2.896442	-2.861434
Peak Day M	Zone ME-W	2925-2012	0	May	-1.980674	-3.298306	-3.435821	-3.539922	-3.245493	-2.987417	-2.786197	-2.765667
Peak Day M	Zone ME-W	2925-2012	0	Jun	-2.694735	-3.304389	-3.417439	-3.461739	-3.156371	-2.902035	-2.692681	-2.659064
Peak Day M	Zone ME-W	2925-2012	0	Jul	-2.470053	-3.269375	-3.390402	-3.461765	-3.100222	-2.864868	-2.664662	-2.596237
Peak Day M	Zone ME-W	2925-2012	0	Aug	-2.577906	-3.291034	-3.409837	-3.488101	-3.116805	-2.82988	-2.667288	-2.570511
Peak Day M	Zone ME-W	2925-2012	0	Sep	-2.58042	-3.318707	-3.448887	-3.524171	-3.145516	-2.860655	-2.695714	-2.596769
Peak Day M	Zone ME-W	2925-2012	0	Oct	-2.72702	-3.345898	-3.479483	-3.381324	-3.231325	-2.997211	-2.778685	-2.715255
Peak Day M	Zone ME-W	2925-2012	49	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone ME-W	2925-2012	49	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone ME-W	2925-2012	49	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone ME-W	2925-2012	49	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone ME-W	2925-2012	49	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone ME-W	2925-2012	49	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone ME-W	2925-2012	49	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone ME-W	2925-2012	49	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone ME-W	2925-2012	49	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone ME-W	2925-2012	49	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone ME-W	2925-2012	49	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone ME-W	2925-2012	49	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone ME-W	2925-2012	50	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone ME-W	2925-2012	50	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone ME-W	2925-2012	50	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone ME-W	2925-2012	50	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone ME-W	2925-2012	50	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone ME-W	2925-2012	50	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone ME-W	2925-2012	50	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone ME-W	2925-2012	50	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone ME-W	2925-2012	50	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone ME-W	2925-2012	50	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone ME-W	2925-2012	50	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone ME-W	2925-2012	50	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone ME-W	2925-2012	51	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone ME-W	2925-2012	51	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone ME-W	2925-2012	51	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone ME-W	2925-2012	51	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone ME-W	2925-2012	51	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone ME-W	2925-2012	51	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086

Data Item	Area	Scenario	Draw	Month	2020	2021	2022	2023	2024	2025	2026	2027
Peak Day M	Zone ME-O	2925-2012	53	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone ME-O	2925-2012	53	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.431068
Peak Day M	Zone ME-O	2925-2012	53	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.231716	-5.246173	-5.610445	-5.980553
Peak Day M	Zone ME-O	2925-2012	54	Nov	-4.997856	-5.134853	-5.550738	-5.650587	-5.71944	-5.741387	-5.961017	-6.160453
Peak Day M	Zone ME-O	2925-2012	54	Dec	-5.034237	-5.177797	-5.592441	-5.694802	-5.76379	-5.785602	-6.00531	-6.204803
Peak Day M	Zone ME-O	2925-2012	54	Jan	-4.976563	-5.063692	-5.443269	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone ME-O	2925-2012	54	Feb	-5.006018	-5.096388	-5.42785	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone ME-O	2925-2012	54	Mar	-4.93399	-5.081712	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone ME-O	2925-2012	54	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356
Peak Day M	Zone ME-O	2925-2012	54	May	-4.504243	-4.534317	-4.943542	-5.039975	-5.168415	-5.124897	-5.565177	-5.731803
Peak Day M	Zone ME-O	2925-2012	54	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone ME-O	2925-2012	54	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone ME-O	2925-2012	54	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone ME-O	2925-2012	54	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone ME-O	2925-2012	54	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.217933	-5.225263	-5.610445	-5.980553
Peak Day M	Zone ME-W	2925-2012	0	Nov	-2.737523	-2.597935	-2.581686	-2.444508	-2.282069	-2.126406	-2.027925	-1.951069
Peak Day M	Zone ME-W	2925-2012	0	Dec	-2.767154	-2.653279	-2.596301	-2.457087	-2.399725	-2.356419	-2.243113	-2.118465
Peak Day M	Zone ME-W	2925-2012	0	Jan	-2.945346	-2.770895	-2.717781	-2.561596	-2.398068	-2.18926	-2.093122	-2.002255
Peak Day M	Zone ME-W	2925-2012	0	Feb	-2.930659	-2.736642	-2.692214	-2.541847	-2.378705	-2.166268	-2.073763	-1.988643
Peak Day M	Zone ME-W	2925-2012	0	Mar	-2.849409	-2.699407	-2.620147	-2.489587	-2.300084	-2.079034	-2.02748	-1.957583
Peak Day M	Zone ME-W	2925-2012	0	Apr	-2.676902	-2.474426	-2.457475	-2.315404	-2.165849	-2.004201	-1.983212	-1.888994
Peak Day M	Zone ME-W	2925-2012	0	May	-2.56704	-2.386981	-2.403818	-2.263695	-2.144239	-1.963935	-1.950959	-1.856319
Peak Day M	Zone ME-W	2925-2012	0	Jun	-2.484988	-2.305326	-2.336629	-2.202555	-2.064382	-1.912594	-1.90218	-1.812441
Peak Day M	Zone ME-W	2925-2012	0	Jul	-2.426839	-2.241076	-2.243247	-2.104025	-1.996607	-1.842884	-1.831215	-1.75152
Peak Day M	Zone ME-W	2925-2012	0	Aug	-2.423896	-2.226254	-2.210093	-2.071382	-1.954948	-1.786355	-1.784335	-1.709905
Peak Day M	Zone ME-W	2925-2012	0	Sep	-2.45746	-2.25162	-2.251106	-2.109663	-1.982255	-1.802663	-1.805104	-1.729373
Peak Day M	Zone ME-W	2925-2012	0	Oct	-2.562388	-2.371945	-2.408017	-2.261941	-2.133762	-2.043387	-1.949026	-1.891785
Peak Day M	Zone ME-W	2925-2012	49	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone ME-W	2925-2012	49	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone ME-W	2925-2012	49	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone ME-W	2925-2012	49	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone ME-W	2925-2012	49	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone ME-W	2925-2012	49	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone ME-W	2925-2012	49	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone ME-W	2925-2012	49	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone ME-W	2925-2012	49	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone ME-W	2925-2012	49	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone ME-W	2925-2012	49	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone ME-W	2925-2012	49	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone ME-W	2925-2012	50	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone ME-W	2925-2012	50	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone ME-W	2925-2012	50	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone ME-W	2925-2012	50	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone ME-W	2925-2012	50	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone ME-W	2925-2012	50	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone ME-W	2925-2012	50	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone ME-W	2925-2012	50	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone ME-W	2925-2012	50	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone ME-W	2925-2012	50	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone ME-W	2925-2012	50	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone ME-W	2925-2012	50	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone ME-W	2925-2012	51	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone ME-W	2925-2012	51	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone ME-W	2925-2012	51	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone ME-W	2925-2012	51	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone ME-W	2925-2012	51	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone ME-W	2925-2012	51	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356

Data Item	Area	Scenario	Draw	Month	2028	2029	2030	2031	2032	2033
Peak Day M	Zone ME-O	2925-2012	53	Aug	-5.31263	-5.158387	-5.262483	-4.993495	-5.044139	
Peak Day M	Zone ME-O	2925-2012	53	Sep	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Peak Day M	Zone ME-O	2925-2012	53	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone ME-O	2925-2012	54	Nov	-6.278368	-6.250198	-6.388315	-6.054121	-6.105807	
Peak Day M	Zone ME-O	2925-2012	54	Dec	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Peak Day M	Zone ME-O	2925-2012	54	Jan	-6.105078	-6.174288	-6.252287	-6.77634	-6.112323	-6.173127
Peak Day M	Zone ME-O	2925-2012	54	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone ME-O	2925-2012	54	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone ME-O	2925-2012	54	Apr	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
Peak Day M	Zone ME-O	2925-2012	54	May	-5.720028	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone ME-O	2925-2012	54	Jun	-5.6167	-5.488288	-5.493362	-5.232564	-5.285384	
Peak Day M	Zone ME-O	2925-2012	54	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone ME-O	2925-2012	54	Aug	-5.31263	-5.158387	-5.262483	-4.993474	-5.037141	
Peak Day M	Zone ME-O	2925-2012	54	Sep	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Peak Day M	Zone ME-O	2925-2012	54	Oct	-5.757933	-5.726967	-5.85954	-5.785563	-5.640032	
Peak Day M	Zone ME-W	2925-2012	0	Nov	-1.830486	-1.67573	-1.582059	-1.382952	-1.290126	
Peak Day M	Zone ME-W	2925-2012	0	Dec	-1.971679	-1.939226	-2.072682	-3.611392	-2.556771	
Peak Day M	Zone ME-W	2925-2012	0	Jan	-1.893229	-1.768582	-1.654259	-1.479103	-1.379823	-1.287207
Peak Day M	Zone ME-W	2925-2012	0	Feb	-1.874768	-1.728669	-1.638874	-1.468179	-1.369632	-1.277701
Peak Day M	Zone ME-W	2925-2012	0	Mar	-1.81595	-1.633285	-1.547157	-1.354807	-1.263865	-1.179028
Peak Day M	Zone ME-W	2925-2012	0	Apr	-1.751791	-1.602953	-1.53038	-1.345223	-1.255336	
Peak Day M	Zone ME-W	2925-2012	0	May	-1.727504	-1.577991	-1.457462	-1.269781	-1.184722	
Peak Day M	Zone ME-W	2925-2012	0	Jun	-1.685114	-1.520937	-1.406173	-1.224893	-1.154329	
Peak Day M	Zone ME-W	2925-2012	0	Jul	-1.611617	-1.45742	-1.36396	-1.201912	-1.121465	
Peak Day M	Zone ME-W	2925-2012	0	Aug	-1.572939	-1.410726	-1.329369	-1.157458	-1.079976	
Peak Day M	Zone ME-W	2925-2012	0	Sep	-1.585792	-1.422597	-1.340335	-1.162466	-1.084602	
Peak Day M	Zone ME-W	2925-2012	0	Oct	-1.784943	-1.609928	-1.533323	-1.332236	-1.242811	
Peak Day M	Zone ME-W	2925-2012	49	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone ME-W	2925-2012	49	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone ME-W	2925-2012	49	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone ME-W	2925-2012	49	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone ME-W	2925-2012	49	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone ME-W	2925-2012	49	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone ME-W	2925-2012	49	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone ME-W	2925-2012	49	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone ME-W	2925-2012	49	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone ME-W	2925-2012	49	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone ME-W	2925-2012	49	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone ME-W	2925-2012	49	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone ME-W	2925-2012	50	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone ME-W	2925-2012	50	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone ME-W	2925-2012	50	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone ME-W	2925-2012	50	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone ME-W	2925-2012	50	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone ME-W	2925-2012	50	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone ME-W	2925-2012	50	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone ME-W	2925-2012	50	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone ME-W	2925-2012	50	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone ME-W	2925-2012	50	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone ME-W	2925-2012	50	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone ME-W	2925-2012	50	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone ME-W	2925-2012	51	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone ME-W	2925-2012	51	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone ME-W	2925-2012	51	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone ME-W	2925-2012	51	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone ME-W	2925-2012	51	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone ME-W	2925-2012	51	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	

Data Item	Area	Scenario	Draw	Month	2012	2013	2014	2015	2016	2017	2018	2019
Peak Day M	Zone ME-W	2925-2012	51	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone ME-W	2925-2012	51	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone ME-W	2925-2012	51	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone ME-W	2925-2012	51	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone ME-W	2925-2012	51	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone ME-W	2925-2012	51	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone ME-W	2925-2012	52	Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone ME-W	2925-2012	52	Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone ME-W	2925-2012	52	Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357
Peak Day M	Zone ME-W	2925-2012	52	Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708
Peak Day M	Zone ME-W	2925-2012	52	Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone ME-W	2925-2012	52	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone ME-W	2925-2012	52	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone ME-W	2925-2012	52	Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone ME-W	2925-2012	52	Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone ME-W	2925-2012	52	Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651
Peak Day M	Zone ME-W	2925-2012	52	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532
Peak Day M	Zone ME-W	2925-2012	52	Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone ME-W	2925-2012	53	Nov	-3.246098	-3.840157	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928
Peak Day M	Zone ME-W	2925-2012	53	Dec	-3.494101	-4.137303	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone ME-W	2925-2012	53	Jan	-3.236205	-3.430731	-4.176443	-4.618098	-4.663178	-4.717219	-4.841214	-4.866403
Peak Day M	Zone ME-W	2925-2012	53	Feb	-2.864792	-3.460157	-4.10851	-4.647524	-4.692605	-4.686293	-4.807002	-4.910753
Peak Day M	Zone ME-W	2925-2012	53	Mar	-2.626653	-3.375013	-3.965561	-4.518481	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone ME-W	2925-2012	53	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone ME-W	2925-2012	53	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone ME-W	2925-2012	53	Jun	-2.694735	-3.306425	-3.74904	-4.118367	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone ME-W	2925-2012	53	Jul	-2.470053	-3.334913	-3.761162	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone ME-W	2925-2012	53	Aug	-2.577906	-3.363402	-3.782681	-4.197859	-4.034961	-3.991667	-4.070797	-4.249651
Peak Day M	Zone ME-W	2925-2012	53	Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.078371	-4.059129	-4.114207	-4.304532
Peak Day M	Zone ME-W	2925-2012	53	Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728
Peak Day M	Zone ME-W	2925-2012	54	Nov	-3.048893	-3.825197	-4.287353	-4.476101	-4.549675	-4.608058	-4.703142	-4.887862
Peak Day M	Zone ME-W	2925-2012	54	Dec	-3.371432	-3.991424	-4.497817	-4.661294	-4.740446	-4.772101	-4.909595	-5.037486
Peak Day M	Zone ME-W	2925-2012	54	Jan	-3.158363	-3.760866	-4.176443	-4.707812	-4.693467	-4.702324	-4.841214	-4.957907
Peak Day M	Zone ME-W	2925-2012	54	Feb	-2.864792	-3.525783	-4.153922	-4.6714	-4.6738	-4.686745	-4.807002	-4.943175
Peak Day M	Zone ME-W	2925-2012	54	Mar	-2.626653	-3.472158	-4.047773	-4.538951	-4.310319	-4.288636	-4.352305	-4.825363
Peak Day M	Zone ME-W	2925-2012	54	Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086
Peak Day M	Zone ME-W	2925-2012	54	May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448
Peak Day M	Zone ME-W	2925-2012	54	Jun	-2.694735	-3.306396	-3.74904	-4.118339	-4.058401	-4.039646	-4.057881	-4.338274
Peak Day M	Zone ME-W	2925-2012	54	Jul	-2.470053	-3.334913	-3.761141	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883
Peak Day M	Zone ME-W	2925-2012	54	Aug	-2.577906	-3.363431	-3.782681	-4.197859	-4.034961	-3.991667	-4.070825	-4.249651
Peak Day M	Zone ME-W	2925-2012	54	Sep	-2.58042	-3.406841	-3.826091	-4.233675	-4.078371	-4.059129	-4.114235	-4.304532
Peak Day M	Zone ME-W	2925-2012	54	Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728

Data Item	Area	Scenario	Draw	Month	2020	2021	2022	2023	2024	2025	2026	2027
Peak Day M	Zone ME-W	2925-2012	51	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone ME-W	2925-2012	51	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone ME-W	2925-2012	51	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone ME-W	2925-2012	51	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone ME-W	2925-2012	51	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone ME-W	2925-2012	51	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone ME-W	2925-2012	52	Nov	-5.026131	-5.134853	-5.548225	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681
Peak Day M	Zone ME-W	2925-2012	52	Dec	-5.085482	-5.316639	-5.592441	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354
Peak Day M	Zone ME-W	2925-2012	52	Jan	-5.056166	-5.114831	-5.36511	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone ME-W	2925-2012	52	Feb	-5.041223	-5.096388	-5.409461	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone ME-W	2925-2012	52	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone ME-W	2925-2012	52	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356
Peak Day M	Zone ME-W	2925-2012	52	May	-4.504243	-4.544591	-4.943542	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803
Peak Day M	Zone ME-W	2925-2012	52	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone ME-W	2925-2012	52	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone ME-W	2925-2012	52	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone ME-W	2925-2012	52	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone ME-W	2925-2012	52	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553
Peak Day M	Zone ME-W	2925-2012	53	Nov	-5.034245	-5.134853	-5.536729	-5.685599	-5.746446	-5.741707	-5.961017	-6.175377
Peak Day M	Zone ME-W	2925-2012	53	Dec	-5.085482	-5.259947	-5.592441	-5.729815	-5.790661	-5.785602	-6.00531	-6.204803
Peak Day M	Zone ME-W	2925-2012	53	Jan	-5.053628	-5.126154	-5.358524	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone ME-W	2925-2012	53	Feb	-5.041223	-5.096388	-5.38795	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone ME-W	2925-2012	53	Mar	-4.93399	-5.060409	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone ME-W	2925-2012	53	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356
Peak Day M	Zone ME-W	2925-2012	53	May	-4.504243	-4.534317	-4.943542	-5.039975	-5.116632	-5.124897	-5.511628	-5.677511
Peak Day M	Zone ME-W	2925-2012	53	Jun	-4.389208	-4.408269	-4.837258	-4.987371	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone ME-W	2925-2012	53	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone ME-W	2925-2012	53	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone ME-W	2925-2012	53	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.431068
Peak Day M	Zone ME-W	2925-2012	53	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.231716	-5.246173	-5.610445	-5.980553
Peak Day M	Zone ME-W	2925-2012	54	Nov	-4.997856	-5.134853	-5.550738	-5.650587	-5.71944	-5.741387	-5.961017	-6.160453
Peak Day M	Zone ME-W	2925-2012	54	Dec	-5.034237	-5.177797	-5.592441	-5.694802	-5.76379	-5.785602	-6.00531	-6.204803
Peak Day M	Zone ME-W	2925-2012	54	Jan	-4.976563	-5.063692	-5.443269	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945
Peak Day M	Zone ME-W	2925-2012	54	Feb	-5.006018	-5.096388	-5.42785	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711
Peak Day M	Zone ME-W	2925-2012	54	Mar	-4.93399	-5.081712	-5.317613	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538
Peak Day M	Zone ME-W	2925-2012	54	Apr	-4.666043	-4.669436	-5.020568	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356
Peak Day M	Zone ME-W	2925-2012	54	May	-4.504243	-4.534317	-4.943542	-5.039975	-5.168415	-5.124897	-5.565177	-5.731803
Peak Day M	Zone ME-W	2925-2012	54	Jun	-4.389208	-4.408269	-4.837258	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801
Peak Day M	Zone ME-W	2925-2012	54	Jul	-4.314949	-4.31385	-4.674761	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329
Peak Day M	Zone ME-W	2925-2012	54	Aug	-4.33832	-4.313762	-4.636236	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525
Peak Day M	Zone ME-W	2925-2012	54	Sep	-4.427585	-4.391868	-4.753613	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258
Peak Day M	Zone ME-W	2925-2012	54	Oct	-4.647273	-4.657272	-5.118707	-5.20542	-5.217933	-5.225263	-5.610445	-5.980553

Data Item	Area	Scenario	Draw	Month	2028	2029	2030	2031	2032	2033
Peak Day M	Zone ME-W	2925-2012	51	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone ME-W	2925-2012	51	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone ME-W	2925-2012	51	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone ME-W	2925-2012	51	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone ME-W	2925-2012	51	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone ME-W	2925-2012	51	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone ME-W	2925-2012	52	Nov	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone ME-W	2925-2012	52	Dec	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Peak Day M	Zone ME-W	2925-2012	52	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone ME-W	2925-2012	52	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone ME-W	2925-2012	52	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone ME-W	2925-2012	52	Apr	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
Peak Day M	Zone ME-W	2925-2012	52	May	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone ME-W	2925-2012	52	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone ME-W	2925-2012	52	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone ME-W	2925-2012	52	Aug	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Peak Day M	Zone ME-W	2925-2012	52	Sep	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Peak Day M	Zone ME-W	2925-2012	52	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone ME-W	2925-2012	53	Nov	-6.293158	-6.250198	-6.388315	-6.04567	-6.105807	
Peak Day M	Zone ME-W	2925-2012	53	Dec	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Peak Day M	Zone ME-W	2925-2012	53	Jan	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Peak Day M	Zone ME-W	2925-2012	53	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone ME-W	2925-2012	53	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone ME-W	2925-2012	53	Apr	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
Peak Day M	Zone ME-W	2925-2012	53	May	-5.720028	-5.602667	-5.64501	-5.334939	-5.388783	
Peak Day M	Zone ME-W	2925-2012	53	Jun	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Peak Day M	Zone ME-W	2925-2012	53	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone ME-W	2925-2012	53	Aug	-5.31263	-5.158387	-5.262483	-4.993495	-5.044139	
Peak Day M	Zone ME-W	2925-2012	53	Sep	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Peak Day M	Zone ME-W	2925-2012	53	Oct	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Peak Day M	Zone ME-W	2925-2012	54	Nov	-6.278368	-6.250198	-6.388315	-6.054121	-6.105807	
Peak Day M	Zone ME-W	2925-2012	54	Dec	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Peak Day M	Zone ME-W	2925-2012	54	Jan	-6.105078	-6.174288	-6.252287	-6.77634	-6.112323	-6.173127
Peak Day M	Zone ME-W	2925-2012	54	Feb	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Peak Day M	Zone ME-W	2925-2012	54	Mar	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Peak Day M	Zone ME-W	2925-2012	54	Apr	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
Peak Day M	Zone ME-W	2925-2012	54	May	-5.720028	-5.656624	-5.656189	-5.334939	-5.388783	
Peak Day M	Zone ME-W	2925-2012	54	Jun	-5.6167	-5.488288	-5.493362	-5.232564	-5.285384	
Peak Day M	Zone ME-W	2925-2012	54	Jul	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Peak Day M	Zone ME-W	2925-2012	54	Aug	-5.31263	-5.158387	-5.262483	-4.993474	-5.037141	
Peak Day M	Zone ME-W	2925-2012	54	Sep	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Peak Day M	Zone ME-W	2925-2012	54	Oct	-5.757933	-5.726967	-5.85954	-5.785563	-5.640032	

Month	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761

Month	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.840157	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.034245	-5.134853	-5.536729
Dec	-3.494101	-4.137303	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.259947	-5.592441
Jan	-3.236205	-3.430731	-4.176443	-4.618098	-4.663178	-4.717219	-4.841214	-4.866403	-5.053628	-5.126154	-5.358524
Feb	-2.864792	-3.460157	-4.10851	-4.647524	-4.692605	-4.686293	-4.807002	-4.910753	-5.041223	-5.096388	-5.38795
Mar	-2.626653	-3.375013	-3.965561	-4.518481	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.534317	-4.943542
Jun	-2.694735	-3.306425	-3.74904	-4.118367	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761162	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363402	-3.782681	-4.197859	-4.034961	-3.991667	-4.070797	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.078371	-4.059129	-4.114207	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.048893	-3.825197	-4.287353	-4.476101	-4.549675	-4.608058	-4.703142	-4.887862	-4.997856	-5.134853	-5.550738
Dec	-3.371432	-3.991424	-4.497817	-4.661294	-4.740446	-4.772101	-4.909595	-5.037486	-5.034237	-5.177797	-5.592441
Jan	-3.158363	-3.760866	-4.176443	-4.707812	-4.693467	-4.702324	-4.841214	-4.957907	-4.976563	-5.063692	-5.443269
Feb	-2.864792	-3.525783	-4.153922	-4.6714	-4.6738	-4.686745	-4.807002	-4.943175	-5.006018	-5.096388	-5.42785
Mar	-2.626653	-3.472158	-4.047773	-4.538951	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.081712	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.534317	-4.943542
Jun	-2.694735	-3.306396	-3.74904	-4.118339	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761141	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363431	-3.782681	-4.197859	-4.034961	-3.991667	-4.070825	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.406841	-3.826091	-4.233675	-4.078371	-4.059129	-4.114235	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568

Month	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.840157	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.034245	-5.134853	-5.536729
Dec	-3.494101	-4.137303	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.259947	-5.592441
Jan	-3.236205	-3.430731	-4.176443	-4.618098	-4.663178	-4.717219	-4.841214	-4.866403	-5.053628	-5.126154	-5.358524
Feb	-2.864792	-3.460157	-4.10851	-4.647524	-4.692605	-4.686293	-4.807002	-4.910753	-5.041223	-5.096388	-5.38795
Mar	-2.626653	-3.375013	-3.965561	-4.518481	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.534317	-4.943542
Jun	-2.694735	-3.306425	-3.74904	-4.118367	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761162	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363402	-3.782681	-4.197859	-4.034961	-3.991667	-4.070797	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.078371	-4.059129	-4.114207	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.048893	-3.825197	-4.287353	-4.476101	-4.549675	-4.608058	-4.703142	-4.887862	-4.997856	-5.134853	-5.550738
Dec	-3.371432	-3.991424	-4.497817	-4.661294	-4.740446	-4.772101	-4.909595	-5.037486	-5.034237	-5.177797	-5.592441
Jan	-3.158363	-3.760866	-4.176443	-4.707812	-4.693467	-4.702324	-4.841214	-4.957907	-4.976563	-5.063692	-5.443269
Feb	-2.864792	-3.525783	-4.153922	-4.6714	-4.6738	-4.686745	-4.807002	-4.943175	-5.006018	-5.096388	-5.42785
Mar	-2.626653	-3.472158	-4.047773	-4.538951	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.081712	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.534317	-4.943542
Jun	-2.694735	-3.306396	-3.74904	-4.118339	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761141	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363431	-3.782681	-4.197859	-4.034961	-3.991667	-4.070825	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.406841	-3.826091	-4.233675	-4.078371	-4.059129	-4.114235	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511

Month	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707

Month	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Nov	-3.246098	-3.840157	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.034245	-5.134853	-5.536729
Dec	-3.494101	-4.137303	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.259947	-5.592441
Jan	-3.236205	-3.430731	-4.176443	-4.618098	-4.663178	-4.717219	-4.841214	-4.866403	-5.053628	-5.126154	-5.358524
Feb	-2.864792	-3.460157	-4.10851	-4.647524	-4.692605	-4.686293	-4.807002	-4.910753	-5.041223	-5.096388	-5.38795
Mar	-2.626653	-3.375013	-3.965561	-4.518481	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.534317	-4.943542
Jun	-2.694735	-3.306425	-3.74904	-4.118367	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761162	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363402	-3.782681	-4.197859	-4.034961	-3.991667	-4.070797	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.078371	-4.059129	-4.114207	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.048893	-3.825197	-4.287353	-4.476101	-4.549675	-4.608058	-4.703142	-4.887862	-4.997856	-5.134853	-5.550738
Dec	-3.371432	-3.991424	-4.497817	-4.661294	-4.740446	-4.772101	-4.909595	-5.037486	-5.034237	-5.177797	-5.592441
Jan	-3.158363	-3.760866	-4.176443	-4.707812	-4.693467	-4.702324	-4.841214	-4.957907	-4.976563	-5.063692	-5.443269
Feb	-2.864792	-3.525783	-4.153922	-4.6714	-4.6738	-4.686745	-4.807002	-4.943175	-5.006018	-5.096388	-5.42785
Mar	-2.626653	-3.472158	-4.047773	-4.538951	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.081712	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.534317	-4.943542
Jun	-2.694735	-3.306396	-3.74904	-4.118339	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761141	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363431	-3.782681	-4.197859	-4.034961	-3.991667	-4.070825	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.406841	-3.826091	-4.233675	-4.078371	-4.059129	-4.114235	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761

Month	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.840157	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.034245	-5.134853	-5.536729
Dec	-3.494101	-4.137303	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.259947	-5.592441
Jan	-3.236205	-3.430731	-4.176443	-4.618098	-4.663178	-4.717219	-4.841214	-4.866403	-5.053628	-5.126154	-5.358524
Feb	-2.864792	-3.460157	-4.10851	-4.647524	-4.692605	-4.686293	-4.807002	-4.910753	-5.041223	-5.096388	-5.38795
Mar	-2.626653	-3.375013	-3.965561	-4.518481	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.534317	-4.943542
Jun	-2.694735	-3.306425	-3.74904	-4.118367	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761162	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363402	-3.782681	-4.197859	-4.034961	-3.991667	-4.070797	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.078371	-4.059129	-4.114207	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.048893	-3.825197	-4.287353	-4.476101	-4.549675	-4.608058	-4.703142	-4.887862	-4.997856	-5.134853	-5.550738
Dec	-3.371432	-3.991424	-4.497817	-4.661294	-4.740446	-4.772101	-4.909595	-5.037486	-5.034237	-5.177797	-5.592441
Jan	-3.158363	-3.760866	-4.176443	-4.707812	-4.693467	-4.702324	-4.841214	-4.957907	-4.976563	-5.063692	-5.443269
Feb	-2.864792	-3.525783	-4.153922	-4.6714	-4.6738	-4.686745	-4.807002	-4.943175	-5.006018	-5.096388	-5.42785
Mar	-2.626653	-3.472158	-4.047773	-4.538951	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.081712	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.534317	-4.943542
Jun	-2.694735	-3.306396	-3.74904	-4.118339	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761141	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363431	-3.782681	-4.197859	-4.034961	-3.991667	-4.070825	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.406841	-3.826091	-4.233675	-4.078371	-4.059129	-4.114235	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568

Month	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.840157	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.034245	-5.134853	-5.536729
Dec	-3.494101	-4.137303	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.259947	-5.592441
Jan	-3.236205	-3.430731	-4.176443	-4.618098	-4.663178	-4.717219	-4.841214	-4.866403	-5.053628	-5.126154	-5.358524

Month	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Feb	-2.864792	-3.460157	-4.10851	-4.647524	-4.692605	-4.686293	-4.807002	-4.910753	-5.041223	-5.096388	-5.38795
Mar	-2.626653	-3.375013	-3.965561	-4.518481	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.534317	-4.943542
Jun	-2.694735	-3.306425	-3.74904	-4.118367	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761162	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363402	-3.782681	-4.197859	-4.034961	-3.991667	-4.070797	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.078371	-4.059129	-4.114207	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.048893	-3.825197	-4.287353	-4.476101	-4.549675	-4.608058	-4.703142	-4.887862	-4.997856	-5.134853	-5.550738
Dec	-3.371432	-3.991424	-4.497817	-4.661294	-4.740446	-4.772101	-4.909595	-5.037486	-5.034237	-5.177797	-5.592441
Jan	-3.158363	-3.760866	-4.176443	-4.707812	-4.693467	-4.702324	-4.841214	-4.957907	-4.976563	-5.063692	-5.443269
Feb	-2.864792	-3.525783	-4.153922	-4.6714	-4.6738	-4.686745	-4.807002	-4.943175	-5.006018	-5.096388	-5.42785
Mar	-2.626653	-3.472158	-4.047773	-4.538951	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.081712	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.534317	-4.943542
Jun	-2.694735	-3.306396	-3.74904	-4.118339	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761141	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363431	-3.782681	-4.197859	-4.034961	-3.991667	-4.070825	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.406841	-3.826091	-4.233675	-4.078371	-4.059129	-4.114235	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707

Month	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.840157	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.034245	-5.134853	-5.536729
Dec	-3.494101	-4.137303	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.259947	-5.592441
Jan	-3.236205	-3.430731	-4.176443	-4.618098	-4.663178	-4.717219	-4.841214	-4.866403	-5.053628	-5.126154	-5.358524
Feb	-2.864792	-3.460157	-4.10851	-4.647524	-4.692605	-4.686293	-4.807002	-4.910753	-5.041223	-5.096388	-5.38795
Mar	-2.626653	-3.375013	-3.965561	-4.518481	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.534317	-4.943542
Jun	-2.694735	-3.306425	-3.74904	-4.118367	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761162	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363402	-3.782681	-4.197859	-4.034961	-3.991667	-4.070797	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.078371	-4.059129	-4.114207	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.048893	-3.825197	-4.287353	-4.476101	-4.549675	-4.608058	-4.703142	-4.887862	-4.997856	-5.134853	-5.550738
Dec	-3.371432	-3.991424	-4.497817	-4.661294	-4.740446	-4.772101	-4.909595	-5.037486	-5.034237	-5.177797	-5.592441
Jan	-3.158363	-3.760866	-4.176443	-4.707812	-4.693467	-4.702324	-4.841214	-4.957907	-4.976563	-5.063692	-5.443269
Feb	-2.864792	-3.525783	-4.153922	-4.6714	-4.6738	-4.686745	-4.807002	-4.943175	-5.006018	-5.096388	-5.42785
Mar	-2.626653	-3.472158	-4.047773	-4.538951	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.081712	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.534317	-4.943542
Jun	-2.694735	-3.306396	-3.74904	-4.118339	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761141	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363431	-3.782681	-4.197859	-4.034961	-3.991667	-4.070825	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.406841	-3.826091	-4.233675	-4.078371	-4.059129	-4.114235	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761

Month	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.840157	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.034245	-5.134853	-5.536729
Dec	-3.494101	-4.137303	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.259947	-5.592441
Jan	-3.236205	-3.430731	-4.176443	-4.618098	-4.663178	-4.717219	-4.841214	-4.866403	-5.053628	-5.126154	-5.358524
Feb	-2.864792	-3.460157	-4.10851	-4.647524	-4.692605	-4.686293	-4.807002	-4.910753	-5.041223	-5.096388	-5.38795
Mar	-2.626653	-3.375013	-3.965561	-4.518481	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568

Month	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.534317	-4.943542
Jun	-2.694735	-3.306425	-3.74904	-4.118367	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761162	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363402	-3.782681	-4.197859	-4.034961	-3.991667	-4.070797	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.078371	-4.059129	-4.114207	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.048893	-3.825197	-4.287353	-4.476101	-4.549675	-4.608058	-4.703142	-4.887862	-4.997856	-5.134853	-5.550738
Dec	-3.371432	-3.991424	-4.497817	-4.661294	-4.740446	-4.772101	-4.909595	-5.037486	-5.034237	-5.177797	-5.592441
Jan	-3.158363	-3.760866	-4.176443	-4.707812	-4.693467	-4.702324	-4.841214	-4.957907	-4.976563	-5.063692	-5.443269
Feb	-2.864792	-3.525783	-4.153922	-4.6714	-4.6738	-4.686745	-4.807002	-4.943175	-5.006018	-5.096388	-5.42785
Mar	-2.626653	-3.472158	-4.047773	-4.538951	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.081712	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.534317	-4.943542
Jun	-2.694735	-3.306396	-3.74904	-4.118339	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761141	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363431	-3.782681	-4.197859	-4.034961	-3.991667	-4.070825	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.406841	-3.826091	-4.233675	-4.078371	-4.059129	-4.114235	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.166963	-3.736372	-4.149028	-4.456559	-4.530002	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.494101	-4.201672	-4.551578	-5.00726	-5.094422	-5.212276	-5.35895	-5.517759	-5.675757	-5.821842	-6.232472
Jan	-3.55218	-3.79104	-4.405216	-4.924679	-5.035884	-5.150977	-5.281905	-5.425907	-5.58503	-5.763694	-6.095603
Feb	-3.187599	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.557836	-3.293701	-3.875528	-4.39047	-4.310319	-4.288636	-4.352305	-4.8052	-4.835451	-4.961171	-5.215541
Apr	-2.389349	-3.224604	-3.692765	-4.171879	-4.17572	-4.167155	-4.238624	-4.512625	-4.571967	-4.576711	-4.923444
May	-1.94917	-3.26736	-3.730339	-4.158249	-4.193049	-4.185147	-4.232777	-4.464935	-4.487674	-4.518626	-4.924122
Jun	-2.65134	-3.25389	-3.734966	-4.133976	-4.170846	-4.159157	-4.184512	-4.322527	-4.374048	-4.458723	-4.916171
Jul	-2.4304	-3.281832	-3.746995	-4.099326	-4.118489	-4.00028	-4.029011	-4.249047	-4.300698	-4.30086	-4.658635
Aug	-2.536457	-3.309774	-3.768195	-4.179331	-4.069	-4.005805	-4.071256	-4.187885	-4.276289	-4.310957	-4.655681
Sep	-2.538929	-3.375637	-3.79856	-4.214709	-4.113282	-4.100835	-4.137469	-4.289198	-4.411955	-4.377923	-4.73652
Oct	-2.683088	-3.425846	-3.900899	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.166963	-3.736372	-4.149028	-4.456559	-4.530002	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.494101	-4.201672	-4.551578	-5.00726	-5.094422	-5.212276	-5.35895	-5.517759	-5.675757	-5.821842	-6.232472
Jan	-3.55218	-3.79104	-4.405216	-4.924679	-5.035884	-5.150977	-5.281905	-5.425907	-5.58503	-5.763694	-6.095603
Feb	-3.187599	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.557836	-3.293701	-3.875528	-4.39047	-4.310319	-4.288636	-4.352305	-4.8052	-4.835451	-4.961171	-5.215541
Apr	-2.389349	-3.224604	-3.692765	-4.171879	-4.17572	-4.167155	-4.238624	-4.512625	-4.571967	-4.576711	-4.923444
May	-1.94917	-3.26736	-3.730339	-4.158249	-4.193049	-4.185147	-4.232777	-4.464935	-4.487674	-4.518626	-4.924122
Jun	-2.65134	-3.25389	-3.734966	-4.133976	-4.170846	-4.159157	-4.184512	-4.322527	-4.374048	-4.458723	-4.916171
Jul	-2.4304	-3.281832	-3.746995	-4.099326	-4.118489	-4.00028	-4.029011	-4.249047	-4.300698	-4.30086	-4.658635
Aug	-2.536457	-3.309774	-3.768195	-4.179331	-4.069	-4.005805	-4.071256	-4.187885	-4.276289	-4.310957	-4.655681
Sep	-2.538929	-3.375637	-3.79856	-4.214709	-4.113282	-4.100835	-4.137469	-4.289198	-4.411955	-4.377923	-4.73652
Oct	-2.683088	-3.425846	-3.900899	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.166963	-3.736372	-4.149028	-4.456559	-4.530002	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.494101	-4.201672	-4.551578	-5.00726	-5.094422	-5.212276	-5.35895	-5.517759	-5.675757	-5.821842	-6.232472
Jan	-3.55218	-3.79104	-4.405216	-4.924679	-5.035884	-5.150977	-5.281905	-5.425907	-5.58503	-5.763694	-6.095603

Month	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Feb	-3.187599	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.557836	-3.293701	-3.875528	-4.39047	-4.310319	-4.288636	-4.352305	-4.8052	-4.835451	-4.961171	-5.215541
Apr	-2.389349	-3.224604	-3.692765	-4.171879	-4.17572	-4.167155	-4.238624	-4.512625	-4.571967	-4.576711	-4.923444
May	-1.94917	-3.26736	-3.730339	-4.158249	-4.193049	-4.185147	-4.232777	-4.464935	-4.487674	-4.518626	-4.924122
Jun	-2.65134	-3.25389	-3.734966	-4.133976	-4.170846	-4.159157	-4.184512	-4.322527	-4.374048	-4.458723	-4.916171
Jul	-2.4304	-3.281832	-3.746995	-4.099326	-4.118489	-4.00028	-4.029011	-4.249047	-4.300698	-4.30086	-4.658635
Aug	-2.536457	-3.309774	-3.768195	-4.179331	-4.069	-4.005805	-4.071256	-4.187885	-4.276289	-4.310957	-4.655681
Sep	-2.538929	-3.375637	-3.79856	-4.214709	-4.113282	-4.100835	-4.137469	-4.289198	-4.411955	-4.377923	-4.73652
Oct	-2.683088	-3.425846	-3.900899	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.166963	-3.736372	-4.149028	-4.456559	-4.530002	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.494101	-4.201672	-4.551578	-5.00726	-5.094422	-5.212276	-5.35895	-5.517759	-5.675757	-5.821842	-6.232472
Jan	-3.55218	-3.79104	-4.405216	-4.924679	-5.035884	-5.150977	-5.281905	-5.425907	-5.58503	-5.763694	-6.095603
Feb	-3.187599	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.557836	-3.293701	-3.875528	-4.39047	-4.310319	-4.288636	-4.352305	-4.8052	-4.835451	-4.961171	-5.215541
Apr	-2.389349	-3.224604	-3.692765	-4.171879	-4.17572	-4.167155	-4.238624	-4.512625	-4.571967	-4.576711	-4.923444
May	-1.94917	-3.26736	-3.730339	-4.158249	-4.193049	-4.185147	-4.232777	-4.464935	-4.487674	-4.518626	-4.924122
Jun	-2.65134	-3.25389	-3.734966	-4.133976	-4.170846	-4.159157	-4.184512	-4.322527	-4.374048	-4.458723	-4.916171
Jul	-2.4304	-3.281832	-3.746995	-4.099326	-4.118489	-4.00028	-4.029011	-4.249047	-4.300698	-4.30086	-4.658635
Aug	-2.536457	-3.309774	-3.768195	-4.179331	-4.069	-4.005805	-4.071256	-4.187885	-4.276289	-4.310957	-4.655681
Sep	-2.538929	-3.375637	-3.79856	-4.214709	-4.113282	-4.100835	-4.137469	-4.289198	-4.411955	-4.377923	-4.73652
Oct	-2.683088	-3.425846	-3.900899	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.166963	-3.751083	-4.149028	-4.456559	-4.530002	-4.588282	-4.703142	-4.944517	-5.034245	-5.134853	-5.515302
Dec	-3.494101	-4.201672	-4.551578	-5.00726	-5.094422	-5.212276	-5.35895	-5.517759	-5.675757	-5.821842	-6.232472
Jan	-3.55218	-3.79104	-4.405216	-4.924679	-5.035884	-5.150977	-5.281905	-5.425907	-5.58503	-5.763694	-6.095603
Feb	-2.792008	-3.770996	-4.016096	-4.547311	-4.672677	-4.686293	-4.786871	-4.910753	-5.041223	-5.096388	-5.38795
Mar	-2.557836	-3.293687	-3.875528	-4.420417	-4.216937	-4.196865	-4.352305	-4.727267	-4.913634	-5.039828	-5.296575
Apr	-2.389349	-3.224604	-3.692765	-4.171879	-4.17572	-4.167155	-4.216785	-4.512625	-4.571967	-4.576711	-4.923444
May	-1.94917	-3.26736	-3.730339	-4.158249	-4.193049	-4.185147	-4.232777	-4.464935	-4.487674	-4.518626	-4.924122
Jun	-2.65134	-3.253818	-3.734966	-4.133976	-4.170846	-4.159157	-4.184512	-4.322527	-4.374048	-4.458723	-4.916171
Jul	-2.4304	-3.281832	-3.74694	-4.099326	-4.118489	-4.00028	-4.11635	-4.249047	-4.300698	-4.30086	-4.744337
Aug	-2.536457	-3.309847	-3.768195	-4.179331	-4.069	-4.005805	-4.071256	-4.187885	-4.276289	-4.310957	-4.655681
Sep	-2.538929	-3.375637	-3.79856	-4.214709	-4.113282	-4.100835	-4.137469	-4.289198	-4.411955	-4.377923	-4.73652
Oct	-2.648777	-3.46359	-3.900899	-4.123549	-4.266176	-4.283998	-4.299768	-4.481983	-4.647273	-4.657272	-5.118707
Nov	-2.973043	-3.736372	-4.191961	-4.456559	-4.530002	-4.608058	-4.703142	-4.887862	-4.997856	-5.134853	-5.550738
Dec	-3.494101	-4.201672	-4.551578	-5.00726	-5.094422	-4.752032	-4.889282	-5.517759	-5.675757	-5.821842	-6.232472
Jan	-3.55218	-3.67465	-4.405216	-4.924679	-5.035884	-5.150977	-5.281905	-5.425907	-4.976563	-5.763694	-6.095603
Feb	-2.792008	-3.441945	-4.153922	-4.6714	-4.6738	-4.666828	-4.786871	-4.943175	-5.006018	-5.096388	-5.42785
Mar	-2.557836	-3.389214	-3.956371	-4.440547	-4.250796	-4.234008	-4.279809	-4.727267	-4.835451	-4.98212	-5.215541
Apr	-2.389349	-3.224604	-3.692765	-4.1492	-4.17572	-4.167155	-4.216785	-4.512625	-4.571967	-4.576711	-4.923444
May	-1.94917	-3.26736	-3.730339	-4.158249	-4.193049	-4.185147	-4.232777	-4.464935	-4.487674	-4.518626	-4.924122
Jun	-2.65134	-3.25379	-3.734966	-4.133976	-4.042657	-4.159157	-4.184512	-4.322527	-4.374048	-4.458723	-4.819141
Jul	-2.4304	-3.281832	-3.746919	-4.099326	-4.118489	-4.081066	-4.11635	-4.249047	-4.300698	-4.35934	-4.744337
Aug	-2.536457	-3.309875	-3.768195	-4.179331	-4.069	-4.005805	-4.071256	-4.187885	-4.276289	-4.310957	-4.655681
Sep	-2.538929	-3.352561	-3.79856	-4.214709	-4.113282	-4.100835	-4.137469	-4.289198	-4.411955	-4.377923	-4.73652
Oct	-2.606148	-3.425846	-3.900899	-4.123549	-4.266176	-4.250741	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707

Month	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.840157	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.034245	-5.134853	-5.536729
Dec	-3.494101	-4.137303	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.259947	-5.592441
Jan	-3.236205	-3.430731	-4.176443	-4.618098	-4.663178	-4.717219	-4.841214	-4.866403	-5.053628	-5.126154	-5.358524
Feb	-2.864792	-3.460157	-4.10851	-4.647524	-4.692605	-4.686293	-4.807002	-4.910753	-5.041223	-5.096388	-5.38795
Mar	-2.626653	-3.375013	-3.965561	-4.518481	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.534317	-4.943542
Jun	-2.694735	-3.306425	-3.74904	-4.118367	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761162	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761

Month	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Aug	-2.577906	-3.363402	-3.782681	-4.197859	-4.034961	-3.991667	-4.070797	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.078371	-4.059129	-4.114207	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.048893	-3.825197	-4.287353	-4.476101	-4.549675	-4.608058	-4.703142	-4.887862	-4.997856	-5.134853	-5.550738
Dec	-3.371432	-3.991424	-4.497817	-4.661294	-4.740446	-4.772101	-4.909595	-5.037486	-5.034237	-5.177797	-5.592441
Jan	-3.158363	-3.760866	-4.176443	-4.707812	-4.693467	-4.702324	-4.841214	-4.957907	-4.976563	-5.063692	-5.443269
Feb	-2.864792	-3.525783	-4.153922	-4.6714	-4.6738	-4.686745	-4.807002	-4.943175	-5.006018	-5.096388	-5.42785
Mar	-2.626653	-3.472158	-4.047773	-4.538951	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.081712	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.534317	-4.943542
Jun	-2.694735	-3.306396	-3.74904	-4.118339	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761141	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363431	-3.782681	-4.197859	-4.034961	-3.991667	-4.070825	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.406841	-3.826091	-4.233675	-4.078371	-4.059129	-4.114235	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568

Month	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.825197	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.026131	-5.134853	-5.548225
Dec	-3.575315	-4.225029	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.316639	-5.592441
Jan	-3.236205	-3.561319	-4.176443	-4.627322	-4.693467	-4.722933	-4.762652	-4.897357	-5.056166	-5.114831	-5.36511
Feb	-2.864792	-3.525783	-4.153922	-4.671672	-4.692605	-4.745641	-4.807002	-4.941708	-5.041223	-5.096388	-5.409461
Mar	-2.626653	-3.375013	-3.965561	-4.488027	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.544591	-4.943542
Jun	-2.694735	-3.306498	-3.74904	-4.118441	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761218	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363329	-3.782681	-4.197859	-4.041077	-3.991667	-4.070723	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.084487	-4.059129	-4.114133	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.72702	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.246098	-3.840157	-4.243694	-4.476101	-4.549675	-4.608058	-4.703142	-4.964928	-5.034245	-5.134853	-5.536729
Dec	-3.494101	-4.137303	-4.497817	-4.688418	-4.740446	-4.772101	-4.909595	-5.037486	-5.085482	-5.259947	-5.592441
Jan	-3.236205	-3.430731	-4.176443	-4.618098	-4.663178	-4.717219	-4.841214	-4.866403	-5.053628	-5.126154	-5.358524
Feb	-2.864792	-3.460157	-4.10851	-4.647524	-4.692605	-4.686293	-4.807002	-4.910753	-5.041223	-5.096388	-5.38795
Mar	-2.626653	-3.375013	-3.965561	-4.518481	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.060409	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.534317	-4.943542
Jun	-2.694735	-3.306425	-3.74904	-4.118367	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761162	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363402	-3.782681	-4.197859	-4.034961	-3.991667	-4.070797	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.430307	-3.826091	-4.233675	-4.078371	-4.059129	-4.114207	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707
Nov	-3.048893	-3.825197	-4.287353	-4.476101	-4.549675	-4.608058	-4.703142	-4.887862	-4.997856	-5.134853	-5.550738
Dec	-3.371432	-3.991424	-4.497817	-4.661294	-4.740446	-4.772101	-4.909595	-5.037486	-5.034237	-5.177797	-5.592441
Jan	-3.158363	-3.760866	-4.176443	-4.707812	-4.693467	-4.702324	-4.841214	-4.957907	-4.976563	-5.063692	-5.443269
Feb	-2.864792	-3.525783	-4.153922	-4.6714	-4.6738	-4.686745	-4.807002	-4.943175	-5.006018	-5.096388	-5.42785
Mar	-2.626653	-3.472158	-4.047773	-4.538951	-4.310319	-4.288636	-4.352305	-4.825363	-4.93399	-5.081712	-5.317613
Apr	-2.455313	-3.30476	-3.779702	-4.24267	-4.236416	-4.258423	-4.307583	-4.607086	-4.666043	-4.669436	-5.020568
May	-1.980674	-3.320197	-3.744356	-4.176515	-4.14548	-4.13108	-4.171127	-4.482448	-4.504243	-4.534317	-4.943542
Jun	-2.694735	-3.306396	-3.74904	-4.118339	-4.058401	-4.039646	-4.057881	-4.338274	-4.389208	-4.408269	-4.837258
Jul	-2.470053	-3.334913	-3.761141	-4.146856	-4.012662	-4.014376	-4.042308	-4.263883	-4.314949	-4.31385	-4.674761
Aug	-2.577906	-3.363431	-3.782681	-4.197859	-4.034961	-3.991667	-4.070825	-4.249651	-4.33832	-4.313762	-4.636236
Sep	-2.58042	-3.406841	-3.826091	-4.233675	-4.078371	-4.059129	-4.114235	-4.304532	-4.427585	-4.391868	-4.753613
Oct	-2.648777	-3.481366	-3.919452	-4.123549	-4.266176	-4.283998	-4.299768	-4.548728	-4.647273	-4.657272	-5.118707

Month	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	

Month	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.746446	-5.741707	-5.961017	-6.175377	-6.293158	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-5.785602	-6.00531	-6.204803	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
May	-5.039975	-5.116632	-5.124897	-5.511628	-5.677511	-5.720028	-5.602667	-5.64501	-5.334939	-5.388783	
Jun	-4.987371	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993495	-5.044139	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.431068	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Oct	-5.20542	-5.231716	-5.246173	-5.610445	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.650587	-5.71944	-5.741387	-5.961017	-6.160453	-6.278368	-6.250198	-6.388315	-6.054121	-6.105807	
Dec	-5.694802	-5.76379	-5.785602	-6.00531	-6.204803	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.77634	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
May	-5.039975	-5.168415	-5.124897	-5.565177	-5.731803	-5.720028	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.488288	-5.493362	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993474	-5.037141	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Oct	-5.20542	-5.217933	-5.225263	-5.610445	-5.980553	-5.757933	-5.726967	-5.85954	-5.785563	-5.640032	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	

Month	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.746446	-5.741707	-5.961017	-6.175377	-6.293158	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-5.785602	-6.00531	-6.204803	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
May	-5.039975	-5.116632	-5.124897	-5.511628	-5.677511	-5.720028	-5.602667	-5.64501	-5.334939	-5.388783	
Jun	-4.987371	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993495	-5.044139	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.431068	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Oct	-5.20542	-5.231716	-5.246173	-5.610445	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.650587	-5.71944	-5.741387	-5.961017	-6.160453	-6.278368	-6.250198	-6.388315	-6.054121	-6.105807	
Dec	-5.694802	-5.76379	-5.785602	-6.00531	-6.204803	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.77634	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
May	-5.039975	-5.168415	-5.124897	-5.565177	-5.731803	-5.720028	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.488288	-5.493362	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993474	-5.037141	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Oct	-5.20542	-5.217933	-5.225263	-5.610445	-5.980553	-5.757933	-5.726967	-5.85954	-5.785563	-5.640032	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127

Month	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	

Month	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Nov	-5.685599	-5.746446	-5.741707	-5.961017	-6.175377	-6.293158	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-5.785602	-6.00531	-6.204803	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
May	-5.039975	-5.116632	-5.124897	-5.511628	-5.677511	-5.720028	-5.602667	-5.64501	-5.334939	-5.388783	
Jun	-4.987371	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993495	-5.044139	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.431068	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Oct	-5.20542	-5.231716	-5.246173	-5.610445	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.650587	-5.71944	-5.741387	-5.961017	-6.160453	-6.278368	-6.250198	-6.388315	-6.054121	-6.105807	
Dec	-5.694802	-5.76379	-5.785602	-6.00531	-6.204803	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.77634	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
May	-5.039975	-5.168415	-5.124897	-5.565177	-5.731803	-5.720028	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.488288	-5.493362	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993474	-5.037141	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Oct	-5.20542	-5.217933	-5.225263	-5.610445	-5.980553	-5.757933	-5.726967	-5.85954	-5.785563	-5.640032	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	

Month	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.746446	-5.741707	-5.961017	-6.175377	-6.293158	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-5.785602	-6.00531	-6.204803	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
May	-5.039975	-5.116632	-5.124897	-5.511628	-5.677511	-5.720028	-5.602667	-5.64501	-5.334939	-5.388783	
Jun	-4.987371	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993495	-5.044139	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.431068	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Oct	-5.20542	-5.231716	-5.246173	-5.610445	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.650587	-5.71944	-5.741387	-5.961017	-6.160453	-6.278368	-6.250198	-6.388315	-6.054121	-6.105807	
Dec	-5.694802	-5.76379	-5.785602	-6.00531	-6.204803	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.77634	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
May	-5.039975	-5.168415	-5.124897	-5.565177	-5.731803	-5.720028	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.488288	-5.493362	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993474	-5.037141	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Oct	-5.20542	-5.217933	-5.225263	-5.610445	-5.980553	-5.757933	-5.726967	-5.85954	-5.785563	-5.640032	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	

Month	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.746446	-5.741707	-5.961017	-6.175377	-6.293158	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-5.785602	-6.00531	-6.204803	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127

Month	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
May	-5.039975	-5.116632	-5.124897	-5.511628	-5.677511	-5.720028	-5.602667	-5.64501	-5.334939	-5.388783	
Jun	-4.987371	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993495	-5.044139	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.431068	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Oct	-5.20542	-5.231716	-5.246173	-5.610445	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.650587	-5.71944	-5.741387	-5.961017	-6.160453	-6.278368	-6.250198	-6.388315	-6.054121	-6.105807	
Dec	-5.694802	-5.76379	-5.785602	-6.00531	-6.204803	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.77634	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
May	-5.039975	-5.168415	-5.124897	-5.565177	-5.731803	-5.720028	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.488288	-5.493362	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993474	-5.037141	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Oct	-5.20542	-5.217933	-5.225263	-5.610445	-5.980553	-5.757933	-5.726967	-5.85954	-5.785563	-5.640032	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-500	-500	-500	-500	-500	-500	-500	-500	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-500	-500	-500	-500	-500	-500	-500	-500	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-500	-500	-500	-500	-500	-500	-500	-500	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	

Month	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-500	-500	-500	-500	-500	-500	-500	-500	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-500	-500	-500	-500	-500	-500	-500	-500	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.746446	-5.741707	-5.961017	-6.175377	-6.293158	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-500	-500	-500	-500	-500	-500	-500	-500	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
May	-5.039975	-5.116632	-5.124897	-5.511628	-5.677511	-5.720028	-5.602667	-5.64501	-5.334939	-5.388783	
Jun	-4.987371	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993495	-5.044139	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.431068	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Oct	-5.20542	-5.231716	-5.246173	-5.610445	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.650587	-5.71944	-5.741387	-5.961017	-6.160453	-6.278368	-6.250198	-6.388315	-6.054121	-6.105807	
Dec	-5.694802	-5.76379	-5.785602	-6.00531	-6.204803	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-500	-6.112323	-500
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
May	-5.039975	-5.168415	-5.124897	-5.565177	-5.731803	-5.720028	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.488288	-5.493362	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993474	-5.037141	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Oct	-5.20542	-5.217933	-5.225263	-5.610445	-5.980553	-5.757933	-5.726967	-5.85954	-5.785563	-5.640032	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	

Month	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.746446	-5.741707	-5.961017	-6.175377	-6.293158	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-5.785602	-6.00531	-6.204803	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	

Month	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
May	-5.039975	-5.116632	-5.124897	-5.511628	-5.677511	-5.720028	-5.602667	-5.64501	-5.334939	-5.388783	
Jun	-4.987371	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993495	-5.044139	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.431068	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Oct	-5.20542	-5.231716	-5.246173	-5.610445	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.650587	-5.71944	-5.741387	-5.961017	-6.160453	-6.278368	-6.250198	-6.388315	-6.054121	-6.105807	
Dec	-5.694802	-5.76379	-5.785602	-6.00531	-6.204803	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.77634	-6.112323	-500
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
May	-5.039975	-5.168415	-5.124897	-5.565177	-5.731803	-5.720028	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.488288	-5.493362	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993474	-5.037141	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Oct	-5.20542	-5.217933	-5.225263	-5.610445	-5.980553	-5.757933	-5.726967	-5.85954	-5.785563	-5.640032	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.970232	
Dec	-6.353658	-6.468364	-500	-500	-500	-500	-500	-500	-500	-500	
Jan	-6.251197	-6.32135	-6.285732	-6.420705	-6.602851	-6.694339	-6.703895	-6.742267	-6.77634	-7.030092	-7.192493
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.611779	-6.728655	-6.716583	-6.968008	-7.12892
Mar	-5.366941	-5.449885	-5.332843	-5.630896	-5.88645	-5.91173	-5.756035	-5.903251	-5.595789	-5.651545	-5.729627
Apr	-5.023808	-5.182835	-5.195488	-5.470461	-5.693666	-5.740378	-5.686493	-5.877943	-5.593074	-5.650662	
May	-5.020698	-5.228751	-5.253271	-5.553727	-5.773551	-5.85126	-5.829194	-6.013561	-5.694599	-5.752736	
Jun	-5.048289	-5.136977	-5.205848	-5.485345	-5.705	-5.748594	-5.762498	-5.921716	-5.609955	-5.667245	
Jul	-4.854927	-4.992171	-4.858592	-5.224695	-5.409996	-5.499521	-5.519301	-5.717021	-5.108937	-5.527151	
Aug	-4.766142	-4.874758	-4.863027	-5.127834	-5.35409	-5.360803	-5.324594	-5.553245	-5.287651	-5.341718	
Sep	-4.862478	-5.024598	-4.948329	-5.244234	-5.477619	-5.505225	-5.430964	-5.693257	-5.362074	-5.416885	
Oct	-5.184581	-5.235909	-5.490153	-5.669624	-5.958337	-6.08652	-5.942991	-6.12818	-5.763695	-5.821129	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.970232	
Dec	-6.353658	-6.468364	-500	-500	-500	-500	-500	-500	-500	-500	
Jan	-6.251197	-6.32135	-6.285732	-6.420705	-6.602851	-6.694339	-6.703895	-6.742267	-6.77634	-7.030092	-7.192493
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.611779	-6.728655	-6.716583	-6.968008	-7.12892
Mar	-5.366941	-5.449885	-5.332843	-5.630896	-5.88645	-5.91173	-5.756035	-5.903251	-5.595789	-5.651545	-5.729627
Apr	-5.023808	-5.182835	-5.195488	-5.470461	-5.693666	-5.740378	-5.686493	-5.877943	-5.593074	-5.650662	
May	-5.020698	-5.228751	-5.253271	-5.553727	-5.773551	-5.85126	-5.829194	-6.013561	-5.694599	-5.752736	
Jun	-5.048289	-5.136977	-5.205848	-5.485345	-5.705	-5.748594	-5.762498	-5.921716	-5.609955	-5.667245	
Jul	-4.854927	-4.992171	-4.858592	-5.224695	-5.409996	-5.499521	-5.519301	-5.717021	-5.108937	-5.527151	
Aug	-4.766142	-4.874758	-4.863027	-5.127834	-5.35409	-5.360803	-5.324594	-5.553245	-5.287651	-5.341718	
Sep	-4.862478	-5.024598	-4.948329	-5.244234	-5.477619	-5.505225	-5.430964	-5.693257	-5.362074	-5.416885	
Oct	-5.184581	-5.235909	-5.490153	-5.669624	-5.958337	-6.08652	-5.942991	-6.12818	-5.763695	-5.821129	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.970232	
Dec	-6.353658	-6.468364	-500	-500	-500	-500	-500	-500	-500	-500	
Jan	-6.251197	-6.32135	-6.285732	-6.420705	-6.602851	-6.694339	-6.703895	-6.742267	-6.77634	-7.030092	-7.192493
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.611779	-6.728655	-6.716583	-6.968008	-7.12892
Mar	-5.366941	-5.449885	-5.332843	-5.630896	-5.88645	-5.91173	-5.756035	-5.903251	-5.595789	-5.651545	-5.729627
Apr	-5.023808	-5.182835	-5.195488	-5.470461	-5.693666	-5.740378	-5.686493	-5.877943	-5.593074	-5.650662	
May	-5.020698	-5.228751	-5.253271	-5.553727	-5.773551	-5.85126	-5.829194	-6.013561	-5.694599	-5.752736	
Jun	-5.048289	-5.136977	-5.205848	-5.485345	-5.705	-5.748594	-5.762498	-5.921716	-5.609955	-5.667245	
Jul	-4.854927	-4.992171	-4.858592	-5.224695	-5.409996	-5.499521	-5.519301	-5.717021	-5.108937	-5.527151	
Aug	-4.766142	-4.874758	-4.863027	-5.127834	-5.35409	-5.360803	-5.324594	-5.553245	-5.287651	-5.341718	
Sep	-4.862478	-5.024598	-4.948329	-5.244234	-5.477619	-5.505225	-5.430964	-5.693257	-5.362074	-5.416885	
Oct	-5.184581	-5.235909	-5.490153	-5.669624	-5.958337	-6.08652	-5.942991	-6.12818	-5.763695	-5.821129	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.970232	
Dec	-6.353658	-6.468364	-500	-500	-500	-500	-500	-500	-500	-500	
Jan	-6.251197	-6.32135	-6.285732	-6.420705	-6.602851	-6.694339	-6.703895	-6.742267	-6.77634	-7.030092	-7.192493

Month	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.611779	-6.728655	-6.716583	-6.968008	-7.12892
Mar	-5.366941	-5.449885	-5.332843	-5.630896	-5.88645	-5.91173	-5.756035	-5.903251	-5.595789	-5.651545	-5.729627
Apr	-5.023808	-5.182835	-5.195488	-5.470461	-5.693666	-5.740378	-5.686493	-5.877943	-5.593074	-5.650662	
May	-5.020698	-5.228751	-5.253271	-5.553727	-5.773551	-5.85126	-5.829194	-6.013561	-5.694599	-5.752736	
Jun	-5.048289	-5.136977	-5.205848	-5.485345	-5.705	-5.748594	-5.762498	-5.921716	-5.609955	-5.667245	
Jul	-4.854927	-4.992171	-4.858592	-5.224695	-5.409996	-5.499521	-5.519301	-5.717021	-5.108937	-5.527151	
Aug	-4.766142	-4.874758	-4.863027	-5.127834	-5.35409	-5.360803	-5.324594	-5.553245	-5.287651	-5.341718	
Sep	-4.862478	-5.024598	-4.948329	-5.244234	-5.477619	-5.505225	-5.430964	-5.693257	-5.362074	-5.416885	
Oct	-5.184581	-5.235909	-5.490153	-5.669624	-5.958337	-6.08652	-5.942991	-6.12818	-5.763695	-5.821129	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.970232	
Dec	-6.353658	-6.468364	-500	-500	-500	-500	-500	-500	-500	-500	
Jan	-6.251197	-6.32135	-6.285732	-6.420705	-6.602851	-6.694339	-6.703895	-6.742267	-6.77634	-7.030092	-7.192493
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.611779	-6.728655	-6.716583	-6.968008	-7.12892
Mar	-5.366941	-5.449885	-5.332843	-5.630896	-5.88645	-5.91173	-5.756035	-5.903251	-5.595789	-5.651545	-5.729627
Apr	-5.023808	-5.182835	-5.195488	-5.470461	-5.693666	-5.740378	-5.686493	-5.877943	-5.593074	-5.650662	
May	-5.020698	-5.228751	-5.253271	-5.553727	-5.773551	-5.85126	-5.829194	-6.013561	-5.694599	-5.752736	
Jun	-5.048289	-5.136977	-5.205848	-5.485345	-5.705	-5.748594	-5.762498	-5.921716	-5.609955	-5.667245	
Jul	-4.854927	-4.992171	-4.858592	-5.224695	-5.409996	-5.499521	-5.519301	-5.717021	-5.108937	-5.527151	
Aug	-4.766142	-4.874758	-4.863027	-5.127834	-5.35409	-5.360803	-5.324594	-5.553245	-5.287651	-5.341718	
Sep	-4.862478	-5.024598	-4.948329	-5.244234	-5.477619	-5.505225	-5.430964	-5.693257	-5.362074	-5.416885	
Oct	-5.184581	-5.235909	-5.490153	-5.669624	-5.958337	-6.08652	-5.942991	-6.12818	-5.763695	-5.821129	
Nov	-5.685599	-5.746446	-5.741707	-5.961017	-6.175377	-6.293158	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-6.353658	-6.468364	-500	-500	-500	-500	-500	-500	-500	-500	
Jan	-6.251197	-6.32135	-6.285732	-6.420705	-6.602851	-6.694339	-6.703895	-6.742267	-6.77634	-7.030092	-7.192493
Feb	-5.548062	-5.599329	-5.54181	-5.743444	-5.962711	-6.085669	-6.611779	-6.728655	-6.716583	-6.968008	-7.12892
Mar	-5.366941	-5.449885	-5.255883	-5.551124	-5.80455	-5.831183	-5.679593	-5.82645	-5.525463	-5.582335	-5.639815
Apr	-5.023808	-5.182835	-5.195488	-5.470461	-5.693666	-5.740378	-5.686493	-5.877943	-5.593074	-5.650662	
May	-5.020698	-5.228751	-5.253271	-5.553727	-5.773551	-5.85126	-5.829194	-6.013561	-5.694599	-5.752736	
Jun	-5.048289	-5.136977	-5.205848	-5.485345	-5.705	-5.748594	-5.762498	-5.921716	-5.609955	-5.667245	
Jul	-4.854927	-4.992171	-4.858592	-5.224695	-5.409996	-5.499521	-5.519301	-5.717021	-5.108937	-5.527151	
Aug	-4.766142	-4.874758	-4.863027	-5.127834	-5.35409	-5.360803	-5.324594	-5.553245	-5.287651	-5.341718	
Sep	-4.862478	-4.88981	-4.815485	-5.218838	-5.412702	-5.352397	-5.198461	-5.283764	-4.957688	-5.009216	
Oct	-5.184581	-5.231716	-5.225263	-5.588888	-5.958337	-6.08652	-5.942991	-6.12818	-5.763695	-5.821129	
Nov	-5.650587	-5.71944	-5.741387	-5.961017	-6.160453	-6.278368	-6.250198	-6.388315	-6.054121	-6.105807	
Dec	-6.353658	-6.468364	-6.440508	-6.637316	-6.786354	-6.837937	-500	-500	-500	-500	
Jan	-6.251197	-6.32135	-5.563705	-5.75884	-6.602851	-6.694339	-6.703895	-6.742267	-6.77634	-7.030092	-7.192493
Feb	-5.526615	-5.599329	-5.54181	-5.743444	-5.962711	-6.085669	-6.611779	-6.728655	-6.02496	-6.107447	-6.168203
Mar	-5.366941	-5.369596	-5.255883	-5.630896	-5.88645	-5.831183	-5.756035	-5.82645	-5.525463	-5.582335	-5.707858
Apr	-5.023808	-5.182835	-5.151503	-5.465844	-5.688913	-5.740378	-5.686493	-5.877943	-5.593074	-5.650662	
May	-5.020698	-5.228751	-5.253271	-5.553727	-5.773551	-5.85126	-5.829194	-6.013561	-5.694599	-5.752736	
Jun	-5.048289	-5.136977	-5.205848	-5.485345	-5.705	-5.748594	-5.472335	-5.921716	-5.609955	-5.667245	
Jul	-4.854927	-4.992171	-5.033683	-5.285728	-5.503457	-5.499521	-5.519301	-5.717021	-5.471248	-5.527151	
Aug	-4.766142	-4.874758	-4.863027	-5.127834	-5.35409	-5.360803	-5.324594	-5.553245	-5.287651	-5.341718	
Sep	-4.862478	-5.024598	-4.948329	-5.244234	-5.412702	-5.505225	-5.430964	-5.693257	-5.362074	-5.416885	
Oct	-5.184581	-5.217933	-5.225263	-5.588888	-5.958337	-5.846715	-5.726967	-5.950861	-5.763695	-5.640032	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	

Month	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.746446	-5.741707	-5.961017	-6.175377	-6.293158	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-5.785602	-6.00531	-6.204803	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
May	-5.039975	-5.116632	-5.124897	-5.511628	-5.677511	-5.720028	-5.602667	-5.64501	-5.334939	-5.388783	
Jun	-4.987371	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	

Month	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993495	-5.044139	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.431068	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Oct	-5.20542	-5.231716	-5.246173	-5.610445	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.650587	-5.71944	-5.741387	-5.961017	-6.160453	-6.278368	-6.250198	-6.388315	-6.054121	-6.105807	
Dec	-5.694802	-5.76379	-5.785602	-6.00531	-6.204803	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.77634	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
May	-5.039975	-5.168415	-5.124897	-5.565177	-5.731803	-5.720028	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.488288	-5.493362	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993474	-5.037141	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Oct	-5.20542	-5.217933	-5.225263	-5.610445	-5.980553	-5.757933	-5.726967	-5.85954	-5.785563	-5.640032	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	

Month	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.761312	-5.756253	-5.97596	-6.192681	-6.306414	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-6.030509	-6.5281	-6.786354	-6.837937	-6.782262	-7.011919	-11.86813	-12.1808	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.195488	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.614639	-5.67233	
May	-5.039975	-5.168415	-5.176716	-5.565177	-5.731803	-5.77451	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993551	-5.044195	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.421372	-5.263222	-5.348315	-5.015014	-5.065658	
Oct	-5.20542	-5.256838	-5.511535	-5.691326	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.685599	-5.746446	-5.741707	-5.961017	-6.175377	-6.293158	-6.250198	-6.388315	-6.04567	-6.105807	
Dec	-5.729815	-5.790661	-5.785602	-6.00531	-6.204803	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.052121	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
May	-5.039975	-5.116632	-5.124897	-5.511628	-5.677511	-5.720028	-5.602667	-5.64501	-5.334939	-5.388783	
Jun	-4.987371	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.541734	-5.54683	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993495	-5.044139	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.431068	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Oct	-5.20542	-5.231716	-5.246173	-5.610445	-5.980553	-6.108963	-5.965178	-6.150697	-5.785563	-5.8431	
Nov	-5.650587	-5.71944	-5.741387	-5.961017	-6.160453	-6.278368	-6.250198	-6.388315	-6.054121	-6.105807	
Dec	-5.694802	-5.76379	-5.785602	-6.00531	-6.204803	-6.322584	-6.30471	-6.475652	-6.140395	-6.201479	
Jan	-5.554306	-5.6293	-5.563705	-5.75884	-5.963945	-6.105078	-6.174288	-6.252287	-6.77634	-6.112323	-6.173127
Feb	-5.548062	-5.620905	-5.54181	-5.743444	-5.962711	-6.085669	-6.075001	-6.235251	-6.047293	-6.107447	-6.168203
Mar	-5.470059	-5.471196	-5.353946	-5.652528	-5.908538	-5.933862	-5.777891	-5.925368	-5.617359	-5.673214	-5.729627
Apr	-5.121114	-5.182835	-5.151503	-5.565804	-5.739356	-5.762206	-5.686493	-5.877943	-5.593074	-5.650662	
May	-5.039975	-5.168415	-5.124897	-5.565177	-5.731803	-5.720028	-5.656624	-5.656189	-5.334939	-5.388783	
Jun	-4.936396	-5.008955	-5.024044	-5.409486	-5.5801	-5.6167	-5.488288	-5.493362	-5.232564	-5.285384	
Jul	-4.746866	-4.876658	-4.873058	-5.242238	-5.428329	-5.407377	-5.293992	-5.363816	-5.117039	-5.16899	
Aug	-4.704235	-4.806598	-4.754929	-5.141934	-5.334525	-5.31263	-5.158387	-5.262483	-4.993474	-5.037141	
Sep	-4.822972	-4.906084	-4.829416	-5.236308	-5.484258	-5.368463	-5.211018	-5.305892	-5.015014	-5.065658	
Oct	-5.20542	-5.217933	-5.225263	-5.610445	-5.980553	-5.757933	-5.726967	-5.85954	-5.785563	-5.640032	

Data Item	Gas Year	Month	Scenario	Year	AECO-BASIS	NYMEX	ROCKS-BASIS	SUMAS-BASIS
First of Mo	2010-2011	Apr	2925-2012	2011	3.831197977	4.350568771	3.866012573	3.922355652
First of Mo	2010-2011	May	2925-2012	2011	3.825410843	4.379208565	3.923680305	3.938952446
First of Mo	2010-2011	Jun	2925-2012	2011	3.75082016	4.163276672	3.797887802	3.727398872
First of Mo	2010-2011	Jul	2925-2012	2011	3.748403072	4.212624073	3.856935263	3.735191107
First of Mo	2010-2011	Aug	2925-2012	2011	3.733804226	4.242230892	3.971725702	3.849343061
First of Mo	2010-2011	Sep	2925-2012	2011	3.537297726	3.81633997	3.619769335	3.426472902
First of Mo	2010-2011	Oct	2925-2012	2011	3.54514432	3.805127859	3.630125999	3.464040756
First of Mo	2011-2012	Nov	2925-2012	2011	3.353828907	3.62244153	3.504607439	3.544529676
First of Mo	2011-2012	Dec	2925-2012	2011	3.604379654	3.908313274	3.827168941	3.588603497
First of Mo	2011-2012	Jan	2925-2012	2012	2.757688522	3.142180204	2.980582714	3.000793457
First of Mo	2011-2012	Feb	2925-2012	2012	2.392968178	2.777599335	2.615315676	2.635583162
First of Mo	2011-2012	Mar	2925-2012	2012	2.181182384	2.559360504	2.397196054	2.40142107
First of Mo	2011-2012	Apr	2925-2012	2012	2.086262941	2.478627205	2.31294179	2.309723854
First of Mo	2011-2012	May	2925-2012	2012	1.615568399	2.04861784	1.873204708	1.766229868
First of Mo	2011-2012	Jun	2925-2012	2012	2.328546286	2.76471138	2.548365116	2.475901365
First of Mo	2011-2012	Jul	2925-2012	2012	2.023294687	2.651704788	2.32743597	2.279784918
First of Mo	2011-2012	Aug	2925-2012	2012	2.103797197	2.630372524	2.433487892	2.362634897
First of Mo	2011-2012	Sep	2925-2012	2012	2.152415991	2.624474287	2.435959816	2.391951084
First of Mo	2011-2012	Oct	2925-2012	2012	2.260253191	2.67624402	2.503174543	2.50011158
First of Mo	2012-2013	Nov	2925-2012	2012	2.503943682	2.836097956	2.72601366	3.068146229
First of Mo	2012-2013	Dec	2925-2012	2012	2.749675751	3.084100723	2.975125074	3.334240198
First of Mo	2012-2013	Jan	2925-2012	2013	3.002773046	3.381040096	3.272070408	3.627745867
First of Mo	2012-2013	Feb	2925-2012	2013	2.968179703	3.360995531	3.252017975	3.604261637
First of Mo	2012-2013	Mar	2925-2012	2013	2.967437744	3.331730843	3.21728301	3.551901817
First of Mo	2012-2013	Apr	2925-2012	2013	2.9342134	3.337572336	3.148203135	3.141601086
First of Mo	2012-2013	May	2925-2012	2013	2.926765203	3.36351347	3.163382053	3.143800259
First of Mo	2012-2013	Jun	2925-2012	2013	2.928240776	3.401548147	3.191109896	3.158851147
First of Mo	2012-2013	Jul	2925-2012	2013	2.959151745	3.450706482	3.234059095	3.197853327
First of Mo	2012-2013	Aug	2925-2012	2013	2.962626934	3.469274998	3.251768112	3.219880104
First of Mo	2012-2013	Sep	2925-2012	2013	3.005741835	3.471016884	3.271653652	3.240475655
First of Mo	2012-2013	Oct	2925-2012	2013	3.070665359	3.509763479	3.321859598	3.288462639
First of Mo	2013-2014	Nov	2925-2012	2013	3.259649038	3.620465279	3.507496119	3.753878593
First of Mo	2013-2014	Dec	2925-2012	2013	3.421465635	3.791671515	3.680704355	3.973103523
First of Mo	2013-2014	Jan	2925-2012	2014	3.601575375	3.995215893	3.882791281	4.173598289
First of Mo	2013-2014	Feb	2925-2012	2014	3.579652548	3.979028702	3.866105318	4.154062748
First of Mo	2013-2014	Mar	2925-2012	2014	3.47631979	3.85756135	3.727639198	3.980474234
First of Mo	2013-2014	Apr	2925-2012	2014	3.434922218	3.807386875	3.615213394	3.584254503
First of Mo	2013-2014	May	2925-2012	2014	3.418611526	3.836209059	3.625336885	3.584523439
First of Mo	2013-2014	Jun	2925-2012	2014	3.402343035	3.860243559	3.629963875	3.570306301
First of Mo	2013-2014	Jul	2925-2012	2014	3.440649748	3.893631458	3.651690245	3.603559494
First of Mo	2013-2014	Aug	2925-2012	2014	3.438397169	3.906326294	3.663190603	3.611129045
First of Mo	2013-2014	Sep	2925-2012	2014	3.483919382	3.89917469	3.69355464	3.630304575
First of Mo	2013-2014	Oct	2925-2012	2014	3.507427216	3.950761795	3.752630234	3.678994417
First of Mo	2014-2015	Nov	2925-2012	2014	3.667042255	4.016841412	3.893992424	4.034387112
First of Mo	2014-2015	Dec	2925-2012	2014	3.778116941	4.141577721	4.029254913	4.241335869
First of Mo	2014-2015	Jan	2925-2012	2015	4.118846416	4.514678955	4.395442963	4.546133041
First of Mo	2014-2015	Feb	2925-2012	2015	4.095962524	4.498964787	4.363846302	4.521169186
First of Mo	2014-2015	Mar	2925-2012	2015	4.042669296	4.409646988	4.234882832	4.30487442
First of Mo	2014-2015	Apr	2925-2012	2015	3.911035538	4.344545364	4.107178211	3.990449667
First of Mo	2014-2015	May	2925-2012	2015	3.885993004	4.396710873	4.113653183	3.972180605
First of Mo	2014-2015	Jun	2925-2012	2015	3.847230911	4.406202316	4.075493813	3.907845974
First of Mo	2014-2015	Jul	2925-2012	2015	3.721598387	4.428041458	4.07819891	3.91326046
First of Mo	2014-2015	Aug	2925-2012	2015	3.697620869	4.426660538	4.073262215	4.074744701
First of Mo	2014-2015	Sep	2925-2012	2015	3.747869015	4.386725903	4.108638287	4.101218224
First of Mo	2014-2015	Oct	2925-2012	2015	3.824978352	4.451704502	4.198596954	3.873318434
First of Mo	2015-2016	Nov	2925-2012	2015	4.020983219	4.473980904	4.299983501	4.110771179
First of Mo	2015-2016	Dec	2925-2012	2015	4.073563099	4.597259998	4.387525082	4.42875433

Data Item	Gas Year	Month	Scenario	Year	AECO-BASIS	NYMEX	ROCKS-BASIS	SUMAS-BASIS
First of Mo	2015-2016	Jan	2925-2012	2016	4.104881763	4.625884056	4.395433903	4.455677986
First of Mo	2015-2016	Feb	2925-2012	2016	4.085736752	4.611341	4.38133049	4.432870865
First of Mo	2015-2016	Mar	2925-2012	2016	3.99601984	4.485545635	4.195726871	4.056970119
First of Mo	2015-2016	Apr	2925-2012	2016	3.913467407	4.4570961	4.170882225	3.98430109
First of Mo	2015-2016	May	2925-2012	2016	3.90383029	4.506588936	4.119205475	3.941527367
First of Mo	2015-2016	Jun	2925-2012	2016	3.882109165	4.533726215	4.033590794	3.855519533
First of Mo	2015-2016	Jul	2925-2012	2016	3.830890656	4.552811146	3.974145651	3.810343027
First of Mo	2015-2016	Aug	2925-2012	2016	3.782476902	4.529361248	3.948166609	3.812569857
First of Mo	2015-2016	Sep	2925-2012	2016	3.825796127	4.481520176	4.063348293	3.875243425
First of Mo	2015-2016	Oct	2925-2012	2016	3.935676575	4.539927959	4.209954739	4.013563156
First of Mo	2016-2017	Nov	2925-2012	2016	4.063017368	4.598971844	4.372327805	4.163302422
First of Mo	2016-2017	Dec	2925-2012	2016	4.084829807	4.684422016	4.435679436	4.479913235
First of Mo	2016-2017	Jan	2925-2012	2017	4.133565426	4.74097681	4.486254692	4.540555954
First of Mo	2016-2017	Feb	2925-2012	2017	4.097898006	4.732948303	4.420610905	4.485021591
First of Mo	2016-2017	Mar	2925-2012	2017	3.978324413	4.509219646	4.171331882	4.035648346
First of Mo	2016-2017	Apr	2925-2012	2017	3.917812824	4.586393833	4.194879532	4.005940437
First of Mo	2016-2017	May	2925-2012	2017	3.894874811	4.630880833	4.127956867	3.927304745
First of Mo	2016-2017	Jun	2925-2012	2017	3.869449854	4.641168118	4.068205833	3.836995363
First of Mo	2016-2017	Jul	2925-2012	2017	3.793055534	4.703264713	3.992908239	3.812036276
First of Mo	2016-2017	Aug	2925-2012	2017	3.719431162	4.648688793	3.931426287	3.743639231
First of Mo	2016-2017	Sep	2925-2012	2017	3.812395573	4.558475494	4.084112644	3.856238365
First of Mo	2016-2017	Oct	2925-2012	2017	3.959044218	4.659136295	4.259705544	4.031088352
First of Mo	2017-2018	Nov	2925-2012	2017	4.067443848	4.721719265	4.429736614	4.180709839
First of Mo	2017-2018	Dec	2925-2012	2017	4.108402729	4.802275181	4.479313374	4.511039257
First of Mo	2017-2018	Jan	2925-2012	2018	4.172230721	4.871905327	4.54668045	4.578998566
First of Mo	2017-2018	Feb	2925-2012	2018	4.153287888	4.858803272	4.524193287	4.55697155
First of Mo	2017-2018	Mar	2925-2012	2018	4.021819592	4.621259689	4.301969528	4.098254681
First of Mo	2017-2018	Apr	2925-2012	2018	3.972238064	4.714850903	4.326425076	4.054279804
First of Mo	2017-2018	May	2925-2012	2018	3.940210581	4.772003174	4.299604893	3.966858864
First of Mo	2017-2018	Jun	2925-2012	2018	3.892994404	4.792856216	4.210121632	3.85500598
First of Mo	2017-2018	Jul	2925-2012	2018	3.826313734	4.817089558	4.155028343	3.839624405
First of Mo	2017-2018	Aug	2925-2012	2018	3.782200098	4.782123089	4.110315323	3.823756218
First of Mo	2017-2018	Sep	2925-2012	2018	3.846974373	4.732638836	4.215452194	3.909127951
First of Mo	2017-2018	Oct	2925-2012	2018	3.979299545	4.76274395	4.38492918	4.04659462
First of Mo	2018-2019	Nov	2925-2012	2018	4.136667728	4.839093685	4.52323246	4.247364044
First of Mo	2018-2019	Dec	2925-2012	2018	4.190948009	4.948949814	4.604930401	4.646236897
First of Mo	2018-2019	Jan	2925-2012	2019	4.248938084	5.015906334	4.654370308	4.693742752
First of Mo	2018-2019	Feb	2925-2012	2019	4.230072021	5.001440525	4.63923502	4.679256439
First of Mo	2018-2019	Mar	2925-2012	2019	4.233278275	4.879197121	4.543488503	4.602415562
First of Mo	2018-2019	Apr	2925-2012	2019	4.060597897	4.865117073	4.428780079	4.473667145
First of Mo	2018-2019	May	2925-2012	2019	4.062835693	4.911009312	4.354351044	4.413249016
First of Mo	2018-2019	Jun	2925-2012	2019	4.002875328	4.93046999	4.270041466	4.131949902
First of Mo	2018-2019	Jul	2925-2012	2019	3.928827763	4.964010239	4.208016396	4.058474064
First of Mo	2018-2019	Aug	2925-2012	2019	3.867282152	4.920470715	4.15305233	3.99731493
First of Mo	2018-2019	Sep	2925-2012	2019	3.952494621	4.857430935	4.280786514	4.098623276
First of Mo	2018-2019	Oct	2925-2012	2019	4.132710457	4.890004158	4.497162342	4.291397572
First of Mo	2019-2020	Nov	2925-2012	2019	4.285424709	4.993562698	4.668971062	4.700646877
First of Mo	2019-2020	Dec	2925-2012	2019	4.312300682	5.107758999	4.729196072	4.771992207
First of Mo	2019-2020	Jan	2925-2012	2020	4.326203823	5.175029278	4.738899231	4.790360928
First of Mo	2019-2020	Feb	2925-2012	2020	4.30766964	5.116334438	4.706081867	4.775667191
First of Mo	2019-2020	Mar	2925-2012	2020	4.339023113	5.025166035	4.619687557	4.670313358
First of Mo	2019-2020	Apr	2925-2012	2020	4.177021027	4.992367744	4.486752987	4.54913187
First of Mo	2019-2020	May	2925-2012	2020	4.164902687	5.061128616	4.435005188	4.295877934
First of Mo	2019-2020	Jun	2925-2012	2020	4.095318794	5.069688797	4.336944103	4.182257652
First of Mo	2019-2020	Jul	2925-2012	2020	4.015828133	5.102148533	4.257035255	4.108911514
First of Mo	2019-2020	Aug	2925-2012	2020	3.951441288	5.059165478	4.202857494	4.084503174
First of Mo	2019-2020	Sep	2925-2012	2020	4.070631504	4.989190578	4.348490238	4.220162392

Data Item	Gas Year	Month	Scenario	Year	AECO-BASIS	NYMEX	ROCKS-BASIS	SUMAS-BASIS
First of Mo	2019-2020	Oct	2925-2012	2020	4.233403683	5.051344872	4.56502676	4.38829565
First of Mo	2020-2021	Nov	2925-2012	2020	4.401194572	5.162419796	4.756862164	4.80934
First of Mo	2020-2021	Dec	2925-2012	2020	4.398376942	5.265757084	4.769441605	4.819186687
First of Mo	2020-2021	Jan	2925-2012	2021	4.447469234	5.353693962	4.802149296	4.85918045
First of Mo	2020-2021	Feb	2925-2012	2021	4.417230606	5.305422783	4.772491932	4.829910755
First of Mo	2020-2021	Mar	2925-2012	2021	4.462087154	5.227466583	4.723657608	4.815479755
First of Mo	2020-2021	Apr	2925-2012	2021	4.223172188	5.166143894	4.490089893	4.583871841
First of Mo	2020-2021	May	2925-2012	2021	4.192792892	5.232525349	4.405580997	4.328333378
First of Mo	2020-2021	Jun	2925-2012	2021	4.15724802	5.267950535	4.281084538	4.254429817
First of Mo	2020-2021	Jul	2925-2012	2021	4.060025215	5.266263485	4.187826157	4.163710117
First of Mo	2020-2021	Aug	2925-2012	2021	4.012693882	5.232750416	4.140354633	4.135464191
First of Mo	2020-2021	Sep	2925-2012	2021	4.0341959	5.162703514	4.286822319	4.184884548
First of Mo	2020-2021	Oct	2925-2012	2021	4.244031429	5.20233202	4.538478374	4.398128033
First of Mo	2021-2022	Nov	2925-2012	2021	4.452050209	5.336595535	4.771297932	4.867733479
First of Mo	2021-2022	Dec	2925-2012	2021	4.488219738	5.411841869	4.829197407	4.90996027
First of Mo	2021-2022	Jan	2925-2012	2022	4.75229311	5.685602665	5.073722839	5.17099905
First of Mo	2021-2022	Feb	2925-2012	2022	4.736173153	5.675213814	5.060008526	5.155837536
First of Mo	2021-2022	Mar	2925-2012	2022	4.712466717	5.521140099	4.928733349	5.058499336
First of Mo	2021-2022	Apr	2925-2012	2022	4.617721081	5.647324562	4.835357666	4.951743603
First of Mo	2021-2022	May	2925-2012	2022	4.595378876	5.73743248	4.816149235	4.729773045
First of Mo	2021-2022	Jun	2925-2012	2022	4.603344917	5.765128613	4.704797268	4.699532032
First of Mo	2021-2022	Jul	2925-2012	2022	4.435245514	5.71051836	4.544298649	4.537902355
First of Mo	2021-2022	Aug	2925-2012	2022	4.348516941	5.639128685	4.457443714	4.47069931
First of Mo	2021-2022	Sep	2925-2012	2022	4.435592175	5.550208569	4.622179985	4.571761608
First of Mo	2021-2022	Oct	2925-2012	2022	4.699143887	5.639966011	4.974929333	4.851857185
First of Mo	2022-2023	Nov	2925-2012	2022	4.913666248	5.78324461	5.183147907	5.327280521
First of Mo	2022-2023	Dec	2925-2012	2022	4.895406723	5.822472095	5.196208477	5.317679405
First of Mo	2022-2023	Jan	2925-2012	2023	4.863580227	5.841197014	5.12761879	5.280181408
First of Mo	2022-2023	Feb	2925-2012	2023	4.856490612	5.797014236	5.123772144	5.274042606
First of Mo	2022-2023	Mar	2925-2012	2023	4.888982773	5.719084263	5.044826031	5.197341919
First of Mo	2022-2023	Apr	2925-2012	2023	4.727579594	5.79019928	4.934224129	5.053090572
First of Mo	2022-2023	May	2925-2012	2023	4.714998722	5.889007092	4.905020237	4.838441372
First of Mo	2022-2023	Jun	2925-2012	2023	4.731142044	5.902123928	4.802715302	4.829670906
First of Mo	2022-2023	Jul	2925-2012	2023	4.541981697	5.846995354	4.615516663	4.647058487
First of Mo	2022-2023	Aug	2925-2012	2023	4.455126762	5.770076275	4.524306774	4.578749657
First of Mo	2022-2023	Sep	2925-2012	2023	4.549369335	5.65719223	4.690686703	4.686413288
First of Mo	2022-2023	Oct	2925-2012	2023	4.827367306	5.772408485	5.017121792	4.980959415
First of Mo	2023-2024	Nov	2925-2012	2023	5.036606312	5.915986061	5.239023209	5.451595306
First of Mo	2023-2024	Dec	2925-2012	2023	5.030076981	5.943657398	5.281797409	5.452759266
First of Mo	2023-2024	Jan	2925-2012	2024	4.936216354	5.911349773	5.154877186	5.353923798
First of Mo	2023-2024	Feb	2925-2012	2024	4.927008629	5.867718697	5.128369808	5.34566927
First of Mo	2023-2024	Mar	2925-2012	2024	4.893838882	5.697649956	4.97542572	5.198459148
First of Mo	2023-2024	Apr	2925-2012	2024	4.889808655	5.854315281	4.994914055	5.213458061
First of Mo	2023-2024	May	2925-2012	2024	4.906190872	5.947490692	4.980734825	5.027693748
First of Mo	2023-2024	Jun	2925-2012	2024	4.816411018	5.973910809	4.874381065	4.909835339
First of Mo	2023-2024	Jul	2925-2012	2024	4.674752235	5.974692345	4.743711948	4.774545193
First of Mo	2023-2024	Aug	2925-2012	2024	4.559890747	5.87367487	4.624960899	4.680525303
First of Mo	2023-2024	Sep	2925-2012	2024	4.706474781	5.831947803	4.77277565	4.827991009
First of Mo	2023-2024	Oct	2925-2012	2024	4.909091473	5.848863602	5.029426575	5.045966148
First of Mo	2024-2025	Nov	2925-2012	2024	5.10363245	6.00898838	5.219940662	5.51649332
First of Mo	2024-2025	Dec	2925-2012	2024	5.097687244	6.058364391	5.305362701	5.512589931
First of Mo	2024-2025	Jan	2925-2012	2025	4.873582363	5.875731945	5.008500576	5.289423943
First of Mo	2024-2025	Feb	2925-2012	2025	4.851109505	5.831531525	4.975591183	5.267894268
First of Mo	2024-2025	Mar	2925-2012	2025	4.77996397	5.60944128	4.793830395	5.083167553
First of Mo	2024-2025	Apr	2925-2012	2025	4.897298336	5.877209187	4.964105606	5.220701218
First of Mo	2024-2025	May	2925-2012	2025	4.928643703	5.990300179	4.988897324	5.062593937
First of Mo	2024-2025	Jun	2925-2012	2025	4.882251263	6.041881084	4.889285088	4.975327015

Data Item	Gas Year	Month	Scenario	Year	AECO-BASIS	NYMEX	ROCKS-BASIS	SUMAS-BASIS
First of Mo	2024-2025	Jul	2925-2012	2025	4.713828087	6.037522793	4.740156174	4.813266754
First of Mo	2024-2025	Aug	2925-2012	2025	4.546880722	5.88591814	4.574154377	4.66728878
First of Mo	2024-2025	Sep	2925-2012	2025	4.630329132	5.781488895	4.697050571	4.754376888
First of Mo	2024-2025	Oct	2925-2012	2025	4.901244164	5.804423332	4.968356609	5.23827076
First of Mo	2025-2026	Nov	2925-2012	2025	5.120846748	5.945530891	5.300500393	5.51453495
First of Mo	2025-2026	Dec	2925-2012	2025	5.092420578	6.030508518	5.4050951	5.507615566
First of Mo	2025-2026	Jan	2925-2012	2026	5.065357208	6.010705471	5.382275105	5.481300354
First of Mo	2025-2026	Feb	2925-2012	2026	5.049055099	6.000962257	5.36888504	5.466161728
First of Mo	2025-2026	Mar	2925-2012	2026	5.08309269	5.847007751	5.236613274	5.376763344
First of Mo	2025-2026	Apr	2925-2012	2026	5.140333652	6.017700672	5.371487617	5.446147442
First of Mo	2025-2026	May	2925-2012	2026	5.220991611	6.149302959	5.370871544	5.343413353
First of Mo	2025-2026	Jun	2925-2012	2026	5.15409565	6.208538532	5.269986153	5.255037785
First of Mo	2025-2026	Jul	2925-2012	2026	4.958817005	6.19169426	5.104794979	5.066396713
First of Mo	2025-2026	Aug	2925-2012	2026	4.804354191	6.05585146	4.954697132	4.91797924
First of Mo	2025-2026	Sep	2925-2012	2026	4.918224335	5.917117596	5.098938465	5.043185234
First of Mo	2025-2026	Oct	2925-2012	2026	5.179498196	6.038022041	5.415383816	5.414913654
First of Mo	2026-2027	Nov	2925-2012	2026	5.338799953	6.124274254	5.568325996	5.715247631
First of Mo	2026-2027	Dec	2925-2012	2026	5.30201149	6.227315903	5.595388412	5.72365427
First of Mo	2026-2027	Jan	2925-2012	2027	5.260363102	6.192851067	5.557457924	5.682980061
First of Mo	2026-2027	Feb	2925-2012	2027	5.257957458	6.19093132	5.551656246	5.68176651
First of Mo	2026-2027	Mar	2925-2012	2027	5.335638046	6.066599846	5.447320461	5.628498077
First of Mo	2026-2027	Apr	2925-2012	2027	5.376431465	6.224464417	5.542140961	5.668488503
First of Mo	2026-2027	May	2925-2012	2027	5.434414387	6.328414917	5.534714699	5.562809467
First of Mo	2026-2027	Jun	2925-2012	2027	5.367353439	6.402602673	5.438501835	5.478761196
First of Mo	2026-2027	Jul	2925-2012	2027	5.170190334	6.37587738	5.288597584	5.288601875
First of Mo	2026-2027	Aug	2925-2012	2027	5.024069786	6.245776176	5.144071102	5.152680874
First of Mo	2026-2027	Sep	2925-2012	2027	5.144913673	6.118813515	5.291303158	5.422949791
First of Mo	2026-2027	Oct	2925-2012	2027	5.380456448	6.216249466	5.557794571	5.699310303
First of Mo	2027-2028	Nov	2925-2012	2027	5.520236969	6.314934254	5.723535538	5.925805569
First of Mo	2027-2028	Dec	2925-2012	2027	5.489467144	6.376353741	5.713457584	5.919815063
First of Mo	2027-2028	Jan	2925-2012	2028	5.390381336	6.284338951	5.617459774	5.821755409
First of Mo	2027-2028	Feb	2925-2012	2028	5.370261192	6.270254135	5.592489719	5.802670956
First of Mo	2027-2028	Mar	2925-2012	2028	5.34528923	6.12157011	5.443732262	5.653399467
First of Mo	2027-2028	Apr	2925-2012	2028	5.43847084	6.291409492	5.564609528	5.715007305
First of Mo	2027-2028	May	2925-2012	2028	5.508764267	6.436491966	5.576708794	5.636654854
First of Mo	2027-2028	Jun	2925-2012	2028	5.408329487	6.502126694	5.474651814	5.524544239
First of Mo	2027-2028	Jul	2925-2012	2028	5.164669991	6.426197052	5.267903328	5.297736168
First of Mo	2027-2028	Aug	2925-2012	2028	5.02896595	6.301954746	5.122541904	5.16269207
First of Mo	2027-2028	Sep	2925-2012	2028	5.170249939	6.101294041	5.229467392	5.313120842
First of Mo	2027-2028	Oct	2925-2012	2028	5.504318237	6.280054092	5.560408115	5.825575829
First of Mo	2028-2029	Nov	2925-2012	2028	5.636228561	6.380797386	5.715252876	6.019730091
First of Mo	2028-2029	Dec	2925-2012	2028	5.601027012	6.427937031	5.688673496	6.035629272
First of Mo	2028-2029	Jan	2925-2012	2029	5.460271358	6.293894768	5.524401188	5.889810562
First of Mo	2028-2029	Feb	2925-2012	2029	5.361583233	6.201779366	5.428057194	5.792181015
First of Mo	2028-2029	Mar	2925-2012	2029	5.214140892	5.991783619	5.215031624	5.500032902
First of Mo	2028-2029	Apr	2925-2012	2029	5.370283604	6.203873634	5.413020134	5.642089844
First of Mo	2028-2029	May	2925-2012	2029	5.485458851	6.359400272	5.460791588	5.597961903
First of Mo	2028-2029	Jun	2925-2012	2029	5.420212746	6.454295158	5.347819328	5.537075043
First of Mo	2028-2029	Jul	2925-2012	2029	5.182301998	6.405984879	5.155912399	5.306355
First of Mo	2028-2029	Aug	2925-2012	2029	4.991825581	6.235943794	4.970874786	5.122401237
First of Mo	2028-2029	Sep	2925-2012	2029	5.095883369	6.085585117	5.073959351	5.35371685
First of Mo	2028-2029	Oct	2925-2012	2029	5.385454655	6.139501095	5.392189026	5.684192657
First of Mo	2029-2030	Nov	2925-2012	2029	5.599804878	6.280008793	5.569327354	5.964452267
First of Mo	2029-2030	Dec	2925-2012	2029	5.583849907	6.372261524	5.576398373	6.018054008
First of Mo	2029-2030	Jan	2925-2012	2030	5.537370205	6.332266808	5.527390003	5.966506958
First of Mo	2029-2030	Feb	2925-2012	2030	5.518984318	6.318655014	5.510558605	5.949754715
First of Mo	2029-2030	Mar	2925-2012	2030	5.359772682	6.109274387	5.265860558	5.645047665

Data Item	Gas Year	Month	Scenario	Year	AECO-BASIS	NYMEX	ROCKS-BASIS	SUMAS-BASIS
First of Mo	2029-2030	Apr	2925-2012	2030	5.55560112	6.335823059	5.416575909	5.773375511
First of Mo	2029-2030	May	2925-2012	2030	5.66405201	6.480261326	5.460363388	5.778542042
First of Mo	2029-2030	Jun	2925-2012	2030	5.574202538	6.545426369	5.35283041	5.69205904
First of Mo	2029-2030	Jul	2925-2012	2030	5.373956203	6.529518604	5.224878311	5.499042511
First of Mo	2029-2030	Aug	2925-2012	2030	5.213739395	6.388938904	5.073232174	5.345397949
First of Mo	2029-2030	Sep	2925-2012	2030	5.350708961	6.266905785	5.157631397	5.531601906
First of Mo	2029-2030	Oct	2925-2012	2030	5.602715015	6.375586987	5.480925083	5.866613388
First of Mo	2030-2031	Nov	2925-2012	2030	5.769663334	6.472807884	5.639988899	6.100263119
First of Mo	2030-2031	Dec	2925-2012	2030	5.774338245	6.601919651	5.752910137	6.186141014
First of Mo	2030-2031	Jan	2925-2012	2031	5.336255074	6.366340637	5.326175213	5.769683361
First of Mo	2030-2031	Feb	2925-2012	2031	5.329858303	6.306583405	5.32134819	5.76493597
First of Mo	2030-2031	Mar	2925-2012	2031	5.05405426	5.971330643	4.959203243	5.342182159
First of Mo	2030-2031	Apr	2925-2012	2031	5.274892807	6.229968548	5.134477139	5.494844913
First of Mo	2030-2031	May	2925-2012	2031	5.350203037	6.344628334	5.144477367	5.465837955
First of Mo	2030-2031	Jun	2925-2012	2031	5.267398357	6.420371532	5.043812752	5.386433601
First of Mo	2030-2031	Jul	2925-2012	2031	5.131705284	6.472218037	4.981136799	5.258042336
First of Mo	2030-2031	Aug	2925-2012	2031	4.95209837	6.308148861	4.810185909	5.085073471
First of Mo	2030-2031	Sep	2925-2012	2031	5.024903774	6.114285469	4.829895496	5.207605839
First of Mo	2030-2031	Oct	2925-2012	2031	5.241039753	6.187582493	5.118031979	5.507577419
First of Mo	2031-2032	Nov	2925-2012	2031	5.429434299	6.308723927	5.298462868	5.763339996
First of Mo	2031-2032	Dec	2925-2012	2031	5.440562248	6.449211597	5.418919563	5.856482983
First of Mo	2031-2032	Jan	2925-2012	2032	5.391117573	6.620091915	5.380936623	5.828879833
First of Mo	2031-2032	Feb	2925-2012	2032	5.384656906	6.558008194	5.37606144	5.824085712
First of Mo	2031-2032	Mar	2925-2012	2032	5.106094837	6.209700584	5.010295391	5.397103786
First of Mo	2031-2032	Apr	2925-2012	2032	5.329142094	6.478409767	5.18732214	5.551293373
First of Mo	2031-2032	May	2925-2012	2032	5.405204773	6.597534657	5.197422504	5.521996498
First of Mo	2031-2032	Jun	2925-2012	2032	5.321572304	6.676227093	5.095750809	5.44179821
First of Mo	2031-2032	Jul	2925-2012	2032	5.184522629	6.730093002	5.032447815	5.312122822
First of Mo	2031-2032	Aug	2925-2012	2032	5.003119469	6.559634209	4.859787941	5.137423992
First of Mo	2031-2032	Sep	2925-2012	2032	5.076653004	6.358222008	4.879694462	5.261181831
First of Mo	2031-2032	Oct	2925-2012	2032	5.294950008	6.434373379	5.170712471	5.564153194
First of Mo	2032-2033	Nov	2925-2012	2032	5.485228539	6.560232162	5.352947712	5.822473049
First of Mo	2032-2033	Dec	2925-2012	2032	5.49646759	6.706190109	5.474608898	5.916547775
First of Mo	2032-2033	Jan	2925-2012	2033	5.446528912	6.782493114	5.436245918	5.888669014
First of Mo	2032-2033	Feb	2925-2012	2033	5.440003395	6.718919754	5.431322098	5.883826256
First of Mo	2032-2033	Mar	2925-2012	2033	5.15865612	6.362257004	5.061898232	5.452575207