



In the Community to Serve®

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September 8, 2016

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

RE: Cascade Natural Gas Corporation's 2016 Integrated Resource Plan Draft of Table of Contents (UG-160453, WAC 480-90-238)

Dear Mr. King:

As requested by WUTC Staff ("Staff") via an email received August 24, 2016, enclosed for filing is Cascade Natural Gas Corporation's ("Cascade") draft Table of Contents for its 2016 Integrated Resource Plan ("IRP" or "Plan"). This document provides an outline of the relevant discussion topics for the Plan, taking into consideration WUTC IRP guidelines and feedback Cascade has received via the public Technical Advisory Group process.

Please note this draft Table of Contents is subject to further modification prior to the filing of Cascade's Draft 2016 IRP, which is currently scheduled to be filed with the Commission on or before October 17, 2016.

If you have any questions regarding the IRP please contact me at (509) 734-4589 (email at mark.sellers-vaughn@cngc.com or at irp@cngc.com).

Sincerely,
CASCADe NATURAL GAS CORPORATION

Mark Sellers-Vaughn
Manager, Resource Planning

Enclosures

CASCADE NATURAL GAS CORPORATION
2016 INTERGRATED RESOURCE PLAN (UG-160453)
TABLE OF CONTENTS

(PLEASE NOTE—THIS A DRAFT DOCUMENT AND SUBJECT TO MODIFICAITON)

<All sections will have an inset box of highlights>

Disclaimer

Section 1 – Executive Summary

Purpose

IRP Process and stakeholder involvement

Responding to the 2014 IRP issues

Narrative of highlights from each section

Table of two-year action items

Section 2 – Company Overview

- Number of customers, areas served, differences in climate and customer density and geo spread
- Therms served, etc.
- Pipelines and basin locations
- Core v. noncore and emphasis on core (bundled vs unbundled)
- Company ORGANIZATION (re district offices, gas supply, headquarters, etc.)

Section 3 – Demand Forecasting

- Overview
- Demand Areas
- Weather Forecast
- Sensitivity Analysis
- Methodology
 - Annual growth
 - Use per customer
 - Peak Day
- Results
- Uncertainties
- Conclusions

Section 4 – Supply-Side Resources

- Overview
- Gas supply resource
- Storage resources
- Capacity resources
- Natural gas price forecast
- Incremental supply-side resource options
- Supply side uncertainties
- Financial derivatives
- Portfolio purchasing strategy
- Conclusions

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Section 5 – Environmental Considerations

- Overview
- Context
 - National focus
 - Regional focus
 - Washington
 - Oregon (even for the Washington IRP)
- Types of CO2 Adders
- Fugitive Methane Emissions
- Current Efforts by Cascade re Greenhouse Gas Reduction
- Proposed Direction

Section 6 – Avoided Costs

- Overview
- Costs incorporated
- Application
- Results

Section 7 – Demand Side Management

- OVERVIEW
- Conservation Plan and CPA and methodology and that all DSM options were reviewed
- Conservation Advisory Group
- Application of avoided cost
- Cost-effectiveness tests (e.g., utility cost test)
- Direct Use

Section 8 – Resource Integration

- OVERVIEW
- Planning and modeling
- Tools used
- Key inputs
- Stochastic analyses
- Stochastic results
- Scenarios
- Price elasticity
- Incorporation of carbon adder
- Alternative forecasting methodologies: scenario planning
- Unserved demand
- Consideration of future modeling modification
- Results and findings

Section 9 – Distribution System Planning

- OVERVIEW

**CASCADE NATURAL GAS CORPORATION
2016 INTERGRATED RESOURCE PLAN (UG-160453)**

TABLE OF CONTENTS

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- Distribution system methodology/approach/modeling
- Engineering modeling by town
- Significant planning projects
- Enhancement of modeling/engineering
- Work done since last IRP
- Key findings

Section 10 – Stakeholder Engagement

<Agenda and minutes to be included in appendices>

- Approach to meetings and workshops
- List of stakeholders
- Number and dates of TAG meetings
- Opportunity for public participation

Section 11 – Regulatory Compliance

- Approach to regulations, policies, and stakeholder comments
- Short history about compressed time schedule
- Resources provided and commitment throughout company
- IRP guidelines
- Compliance matrices
- Statement this fully complies with all regulations, orders, and comments

Section12 – Two year Action Plan

<...each subsection by topic...>

Section 13 – Glossary and Miscellaneous References

Glossary

Citygate/Zone Cross reference

Additional Pipeline System Maps

Appendices

Appendix A - IRP Process and Guideline Compliance

Appendix B - Demand Forecast Appendices

Appendix C – Distribution System Analysis

Appendix D - Conservation Measures – Technical Potential

Appendix E – Current and Alternative Supply Resources

Appendix F - Capacity Requirements & Peak Day Planning

Appendix G –Weather & Price Uncertainty Analyses

Appendix H - Avoided Cost Calculations

Appendix I – Prior 2-Year Action Plan Update

Appendix J -- Stakeholder Engagement