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Gas Public Purpose Funding, Distribution Margin Normalization & Weather Adjusted Rate Mechanism

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Decoupling Mechanism Issues

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- What are the benefits to customers?
- What are the benefits to the company?
- Does it eliminate gaming in the establishment of normal use per customer in a rate case?
- Should customers be allowed to opt out?
- Is coverage complete or partial?
- Is the mechanism more complicated than necessary?
- Should a decoupling mechanism cover usage changes resulting from conservation? Prices (elasticity)? Weather? Why or why not?

Decoupling Mechanism Issues (continued)

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- What should the company's conservation posture be in Washington?
- What risks does an allowed ROE cover?
- Should decoupling lead to a lower ROE?
- Lower than what (or, how do we know its lower)?
- What evidence would be necessary to show decoupling is working?

Recent Decline in Use per Customer -- System

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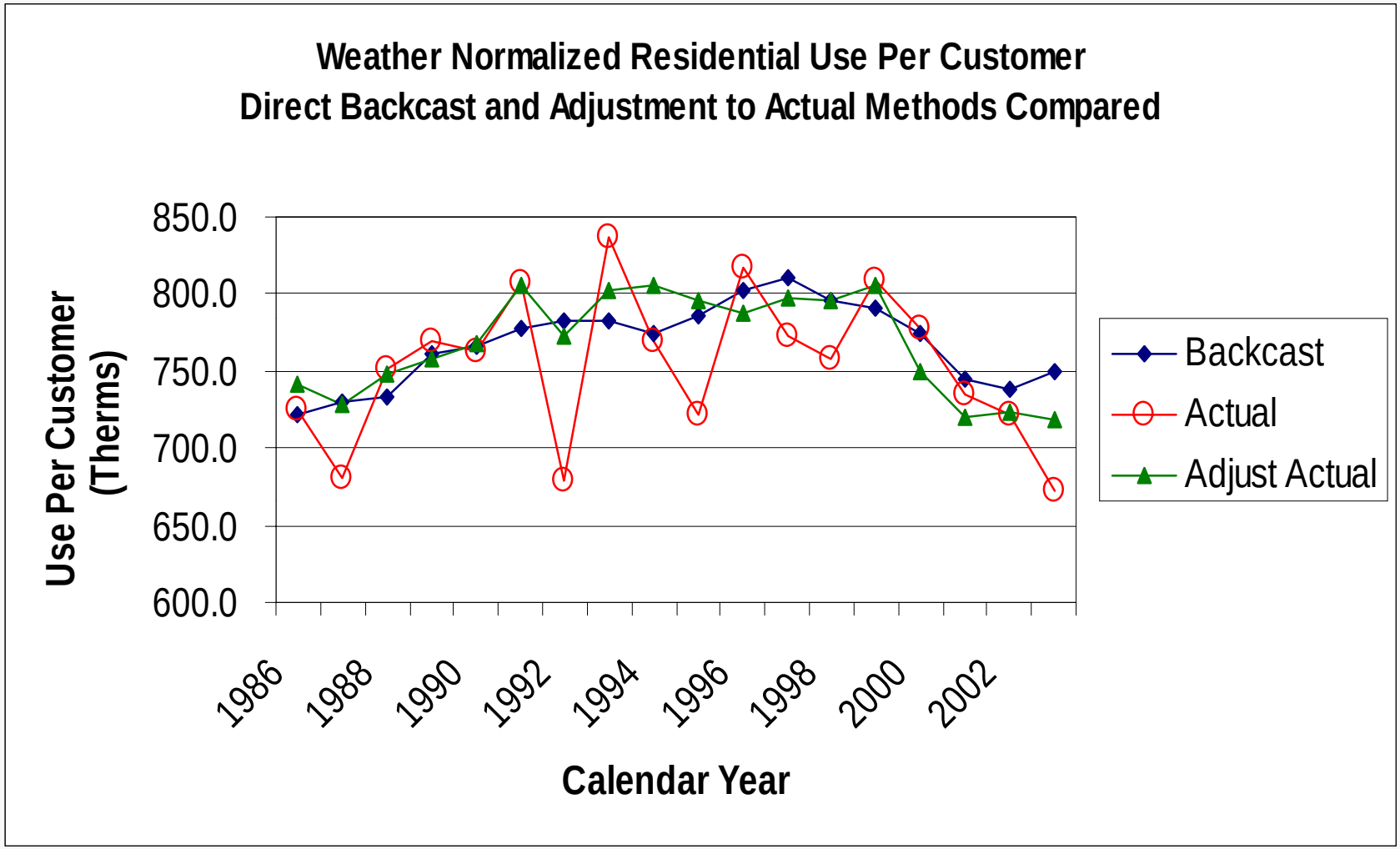

What We Asked For In Oregon (outside of a rate case):

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- Public Purpose Funding
- Revenue per Customer Decoupling using deferred accounting
- *"An elegant solution to the problem of changes in customer energy utilization between rate cases"*
- Eliminate the disincentive to pursue Energy Efficiency

What We Have Obtained:

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- Public Purpose Funding
- Partial decoupling (Distribution Margin Normalization, or DMN)

  We were not allowed to use the "D" word!

- Weather Adjusted Rate Mechanism (WARM) in a subsequent rate case

Public Purpose Funding and the Energy Trust of Oregon (ETO)

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- We surrendered our existing Energy Efficiency programs to a new Oregon entity primarily tasked with Electric EE acquisitions
- Ratepayer funding for company EE programs ended
- Despite our best efforts, many of our past EE efforts were not cost effective
- New Public Purpose Funding levels for EE are now much higher than before and higher than our proposed levels

Funding Formulas

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Oregon Public Purpose / System Benefit Charge Comparisons

		Electric SB 1149 / 848 (Statutory) Nominal Share (a)	Effective Share (b)	Charge Level (c)	NWN Schedule 190 (self imposed) Nominal Share (d)	Effective Share (e)	Charge Level (f)	NWN Annual Proceeds (g)	Class Impact Incidence From (h)	To (i)
1	**Educational Service Districts**	10.0%	8.1%	**0.30%**	0.0%	0.0%	**0.00%**	**N/A**		
2	**Conservation and Market Transformation** (administered by the Energy Trust of Oregon)	63.0%	45.9%	**1.70%**	83.3%	70.8%	**1.25%**	**$6,750,711**	R & C	R & C
3	**New Renewable Energy Sources**	19.0%	13.9%	**0.51%**	0.0%	0.0%	**0.00%**	**N/A**		
4	**New Low-income Weatherization** (administered by NWN)	13.0%	9.5%	**0.35%**	16.7%	14.2%	**0.25%**	**$1,350,142**	R & C	R
5	**Low-Income Housing Grants**	5.0%	3.6%	**0.14%**	0.0%	0.0%	**0.00%**	**N/A**		
6	**Sub-Total**	100.0%		**3.00%**	100.0%		**1.50%**	**$8,100,854**		
7	**Low-Income Bill Payment Assistance** (administered by NWN) (Elec: $10,000,000 / $1,400,000,000 = 0.007) (Gas: $1,352,502 / $350,246,100 = 0.0039)		19.0%	**0.7%**		15.1%	**$ 0.25** or, 0.41%	**$1,435,200**	R	R
8	**Total with Bill Payment Assistance**		**100.0%**	**3.7%**		**100.0%**	**1.77%**	**$9,536,054**		
9	**NWN 2004 Budget, Oregon Revenue:**	**Residential**						**$350,082,700**		
		Commercial						**$189,974,200**		
		Total						**$540,056,900**		

Notes to NWN Public Purpose Charge Levels:
Line 2, NWN charge would amount to 0.65 % if based on difference in Electric and Gas avoided cost estimates. J. Hanson
Line 2, NWN proposed 0.65 percent 7-Jun-04
Lines 4 and 7, lower than SB1149 charge levels due to lower incidence of low-income customers in gas heated homes.
Line 7, column (f), $0.25 per customer per month times 2004 Budget average residential customers (478,400).
Line 8, NWN intended to have an overall charge level of 1.15 percent.
Lines 9, 2004 Buget Oregon revenues.

Timelines

Start Date	End Date	Event
9/1/03	??	Public Purpose Funding
9/1/02	9/1/05	Partial decoupling (DMN)
9/1/03	9/1/08	WARM
Spring 04		Docket for Partial Decoupling
		Independent Evaluation

Pricing Concepts

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- Virtually all distribution system costs are fixed in the short run
- Cost of service is approximately equal for all customers in a rate class on either an LRIC or embedded cost of service basis
- Fixed costs should not be recovered in a volumetric rate
- In an ideal world, we would have three part rates with a customer charge, demand charge and a volumetric charge set very close to the cost of the commodity being delivered

Pricing Concepts (continued)

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- Straight Fixed Variable Pricing creates revenue stability
- Problems with SFV
  - Diminishes the incentive to conserve – consumption tax
  - High Customer Charges and high/low usage customers
- How do you use volumetric rates for distribution system cost recovery and stabilize revenues at the same time?

Revenue Per Customer Decoupling (RPCD)

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- Base Use = Normal use per customer (UPC) by rate class from last rate case
- Distribution margin (DM, volumetric rate less commodity and purchased capacity cost per therm)
- Each month compare actual cycle sales per customer to normal cycle sales per customer
- Post differences to a 186 deferred account for subsequent recovery or refunds:

  Adjustment = DM * (use normal – use actual) * customers

- Refund/collect through a cents per therm one-year temporary increment at the time of the annual gas cost tracking filing

Benefits of RPCD

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- Insulates utility earnings from change in use per customer regardless of cause: price elasticity, weather, declining or improving economic conditions, conservation, moral suasion, ...
- Eliminates contention over the measurement of normal weather and weather adjustment methodology in a rate case
- Incidence issues: individual customer bill impacts in subsequent billing periods do not closely coincide with past individual customer behavior

Wide and Active Support for RPCD in Oregon

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- Oregon Office of Energy
- Citizens' Utility Board of Oregon (CUB)
- Community Action Directors of Oregon
- Northwest Energy Coalition
- Natural Resources Defense Council (NRDC)

Risk Shifting Issues With Respect To Weather Variations

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- Is risk shifted or reduced?
- Oregon Staff: risk is shifted from shareholders to ratepayers
- Company: risk is reduced for both shareholders and ratepayers
- Coin toss example

Partial Decoupling – UG 143
The Outcome of a Tortuous Process

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- Staff sought to keep company exposed to weather related risk
- Price Elasticity Adjustment (PEA) at time of each price change
- Differences in UPC due to all effects except weather are captured and collected through deferred accounting
- Only 90 percent of differences are deferred
- Covers residential and commercial class volumes
- Covers all months of the year

DMN (partial decoupling) Mechanics

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Decoupling Adjustment

Example

				Residential	Commercial	Total
1	10/1/01 - 9/30/02 Normal Volumes	example		327,000,000	223,000,000	
2	Price Decline 10/1/02	From PGA		-11.9%	-15.5%	
3	Settled Elasticity Factor			(0.172)	(0.110)	
4	Volume Increase as Percentage	(ln 2 X ln 3)		2.0%	1.7%	
5	Volume Increase from Previous Year	(ln 4 X ln 1)		6,693,036	3,802,150	
6	Baseline Volumes 10/1/02 - 9/30/03	(ln 5 + ln 1)	1/	333,693,036	226,802,150	
7	"Actual" Volumes 10/1/02 - 9/30/03	example	2/	333,000,000	226,000,000	
8	Variance from Baseline	(ln 7 - ln 6)		(693,036)	(802,150)	
9	Margin Rate Per Therm			$0.34055	$0.21692	
10	Margin Shortfall	(ln 8 X ln 9)		($236,013)	($174,002)	
11	Margin Shortfall to be collected after 90%	(ln 10 X 90%)		($212,412)	($156,602)	($369,014)

1/ Baseline volumes to be updated monthly for actual customer counts

2/ Actual volumes are weather normalized to remove effect of colder-than-normal or warmer-than-normal weather.

Then Came WARM

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- UG 152 Rate Case introduced WARM (Weather Adjusted Rate Mechanism)
- Uses real-time adjustments to customers' bills intended to address the customer-specific incidence issue
- Staff acceptance of WARM came about as part of the settlement on rate case normal-weather-adjustment issues (a "perfect storm" was brewing):
  - Staff wanted to use NOAA's 30-year normal Heating Degree Days (HDDs) using a balance point assumption of 65º
  - Company wanted 20-year moving average at base 59 and 58º
  - Settlement: 25-years ending 2000 at base 59 and 58º
  - Customers allowed to opt out (approximately 9% opted out)
  - Covers all residential, and small commercial customers
  - Covers the period November 15th through May 15th
    - Caveat – October weather was off-the-scale warm
  - WARM adjustment does not appear as a line item on bills
  - WARM did not involve a ROE adjustment

How WARM (Version 1.0) Worked

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- For each billing period, each customer's actual and normal degree days were accumulated to get grand totals for the billing period
- Total accumulated actual HDDs were subtracted from the total accumulated normal HDDs to get a global heating HDD variance
- The total HDD variance was multiplied by the rate class HDD coefficient based on regression equations used in the last rate case weather normalization

How WARM (Version 1.0) Worked (continued)

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- The total therm variance was multiplied by the Distribution Margin (DM) for that rate class to obtain the billing cycle refund or collection amount
- The refund or collection amount was divided by total billing cycle therm usage to get the cent per therm adjustment amount, which was then applied to each bill as in increase or decrease on an equal cent per therm of usage basis
- Oregon system HDD coefficients are applied to individual district heating degree day departures from normal – can be a bad fit for our diverse operating district climate zones

How WARM (Version 2.0) Works

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- The sum of actual HDDs an individual customer experiences in the billing cycle is subtracted from the sum of normal HDDs for that service territory, over the same period.

- This HDD difference is multiplied by the appropriate usage factor to determine the number of therms the difference between actual and normal HDDs represents.

- The therm difference resulting from the gap between actual and normal weather is multiplied by the appropriate per therm margin to ascertain how by how much the weather variation affected company margin revenues.

How WARM (Version 2.0) Works (continued)

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- The margin revenue difference is applied as a collection or refund to the individual customer's bill.
- These steps are performed on each residential and small commercial customer's bills.
- Residential bills can increase by no more than $ 12 in a given month or 25% whichever is less.
- Commercial bill can increase by no more than $ 35 in a given month or 25% whichever is less.
- Any amounts not applied to a customer's bill during the WARM period due for floors and caps are applied to customer first bill following the WARM period.

What Happens Under Current DMN and WARM Mechanisms?

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- We have a collection of complicated mechanisms that bring us somewhat close to the effects of SFV pricing or RPCD
  - 10 percent slippage with DMN
  - Incomplete rate class coverage – WARM excludes large commercial
  - 9 percent of customers have opted out of WARM
- Incidence of weather departure adjustments a bit more precise than with RPCD

Public Relations Concerns With WARM

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- Customer complaints and confusion
- OPUC communications vs. company communications
- Minimizing Commission complaints
- Would a rational customer opt in or opt out of WARM?

  Weather expectations over the long term:
  Warmer than rate case weather normals? **OUT**
  Colder than rate case weather normals? **IN**

- Greater budgeting certainty for small commercial customers held to meeting energy budget goals – say, public agencies like schools

Our Recent Washington Rate Case and Proposed RPCD

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- We filed for a simple and elegant RPCD mechanism
- Rate case normal weather estimates and normalization methods are highly contentious – all the more reason for RPCD
- In lieu of Public Purpose Funding in Washington, we propose to implement the best of the Oregon ETO's Energy Efficiency programs using the ETO's energy service contractors in our Washington service territory
- We will seek recovery of expenses for cost-effective EE programs through deferred accounting and hope to use the RPCD mechanism to recover lost margin resulting from EE program successes in Washington

Independent Review of the Oregon Partial Decoupling Mechanism (DMN)

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- Tasks in Request for Qualifications (partial list)

  - Did DMN remove the relationship between sales and profits?
  - Has our corporate culture changed?
  - Has our marketing ethos changed from load retention to the promotion of Energy Efficiency?
  - Have we acted to enable success for the ETO?
  - Evaluate impacts on service quality
  - Investigate individual customer bill incidence differences between RPCD and DMN/WARM

Web Site Paths to Tariffs and Testimony

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- Partial Decoupling Order:
  http://www.puc.state.or.us/orders/2002ords/02%2D634.pdf
- WARM Testimony:
  http://www.nwnatural.com/about/rates/regulatory/pdf/pending_regulatory_activities/1600_WARM_TEST.pdf
- Public Purpose Funding Tariffs:
  http://www.nwnatural.com/about/rates/rates_tariffs/or22/public_purposes_schedules.asp
- Partial Decoupling (190) and WARM (195) Tariffs:
  http://www.nwnatural.com/about/rates/rates_tariffs/or22/adjustments.asp