Impact of Revenue Decoupling: A Changed Rate Paradigm

Pennsylvania Public Utility Commission Workshop

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December 8, 2006

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Natural Gas Utility Costs

✦ Natural gas utilities provide a service, not a product.

✦ Two main costs – commodity and distribution

✦ Utilities do not make money on gas costs – although there is risk to the utility

✦ Utilities earn money on their investments in property and plant used to provide service

✦ Commodity costs are volatile

✦ Distribution costs are stable

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Customer Energy Efficiency

✦ 15 million new residential customers since 1980

✦ 1980 residential consumption = 4.7 Tcf

✦ 2005 residential consumption = 4.8 Tcf

✦ Decreased gas consumption per residential customer = one percent per year since 1980

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Traditional Rate Design

✦ Traditional utility rate design is 100 years old.

✦ Increasing sales is a major objective of traditional rate design.

✦ Traditional rates recover fixed costs volumetrically.

✦ Traditional rate design implies cost recovery only if customers consume and don't conserve.

✦ Traditional rate designs contain a financial disincentive for aggressively promoting energy efficiency and conservation.

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Why Innovative Rate Design?

✦ Flat demand growth and in many systems, falling demand, has led to under-recovery of approved costs.

✦ High and volatile natural gas prices

✦ Global climate change – warmer than normal weather

✦ Many jurisdictions, as well as federal policy makers, now discourage increased sales and encourage conservation.

✦ New paradigm has shifted the regulatory goal from building a system to encouraging energy efficiency.

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Revenue Decoupling

✦ Revenue decoupling is a symmetrical automatic adjustment to rates that removes the variability of fixed cost recovery caused by unpredictable energy consumption due to weather or conservation.

✦ Decoupling allows the utility to actively promote conservation and energy efficiency without having to sacrifice its financial stability.

✦ Revenue decoupling works by adjusting (truing-up) the actual sales volumes to the weather-normalized sales volumes approved in the last rate case.

✦ The utility's rates retain the standard bill components of a fixed monthly service charge, a volumetric distribution charge, and a volumetric commodity pass through charge.

✦ Decoupling adds to the tariffs a symmetrical tracking mechanism that "trues-up" the volumetric distribution charge.

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Revenue Decoupling – Continued

✦ When sales volumes decline from the level forecasted in the rate case, the true-up mechanism increases the distribution charge.

✦ When sales volumes increase from the level forecasted in the rate case, the true-up mechanism decreases the distribution charge.

✦ The decoupling true-up adjustment is a proportional mechanism. The amount of "true-up" cost assigned to each customer is proportional to the customer's individual usage. High volume customers pay more of the true-up charge than do low-volume customers.

✦ Decoupling prevents the utility from increasing its earnings by increasing its sales volumes because the additional distribution charge is refunded to customers.

✦ Decoupling is NOT incentive regulation – there is no reward or bonus for the utility.

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Decoupling Calculation
A Representative Example – Average Usage

$300,000,000 Distribution Service Cost
1,000,000 Residential Customers
100 Mcf per customer per year

Per Mcf Basis (Volumetric)

✦ 100,000,000 Mcf/yr - Total System Throughput

✦ $3 Distribution Charge/Mcf

Per Cust. Basis (Non-volumetric)

✦ 1,000,000 Residential Customers

✦ $300 Distribution Charge/customer

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Decoupling Calculation – Con't.
Average Usage

✦ <u>TR* with 5% Volume Reduction</u>

   ✓ 95 Mcf/Cust./yr

   ✓ <u>x$3</u> Dist. Chg/Mcf

   ✓ $285 Rev/Cust.

   ✓ $15 Rev Shortfall

   ✓ $15 Loss in Yr 1

   ✓ No rate adjustment in yr 2

   *Traditional Rate Design

✦ <u>RD* with 5% Volume Reduction – UPC Basis</u>

   ✓ 95 Mcf/Cust./yr

   ✓ <u>x$3</u> Dist. Chg/Mcf

   ✓ $285 Rev/Cust. in Yr 1

   ✓ $15 Rev Shortfall

   ✓ 100 Mcf/Cust./Yr

   ✓ <u>x$3.15</u>/Dist. Chg/Mcf

   ✓ $315 Rev/Cust. in Yr 2

   ✓ $15 Rev Surplus in Yr 2

   * Revenue Decoupling

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Decoupling Calculation
High and Low Volume Usage

✦ <u>High Volume Cust.</u>
<u>(133 Mcf/yr) UPC</u>
<u>5% Vol. Reduction</u>

    ✓ $399 Expected Rev.

    ✓ 126 Mcf/Cust./Yr

    ✓ <u>x$3</u> Dist. Chg/Mcf

    ✓ $378 Rev/Cust. in Yr 1

    ✓ $21 Rev Shortfall

    ✓ 133 Mcf/Cust./Yr

    ✓ <u>x$3.15</u>/Dist. Chg/Mcf

    ✓ $420 Rev/Cust in Yr 2

    ✓ $21 Rev Surplus in Yr 2

✦ <u>Low Volume Cust.</u>
<u>(67 Mcf/yr) UPC</u>
<u>5% Vol. Reduction</u>

    ✓ $201 Expected Rev.

    ✓ 64 Mcf/Cust./Yr

    ✓ <u>x$3</u> Dist. Chg/Mcf

    ✓ $192 Rev/Cust. in Yr 1

    ✓ $9 Rev shortfall

    ✓ 67 Mcf/Cust./Yr

    ✓ <u>x$3.15</u>/Dist. Chg/Mcf

    ✓ $210 Rev/Cust. in Yr 2

    ✓ $9 Rev Surplus in Yr 2

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Impact of Decoupling on ROE

✦ Rate design change decouples return recovery from commodity sales volumes.

✦ The symmetrical nature of decoupling decreases over-earning at the same time that it lessens under-earning.

✦ Company is not sheltered from impact of increased costs.

✦ Decoupling does not provide a guarantee that company will achieve its authorized ROE.

✦ Peer group for cost of capital determination may already include companies with innovative rates

✦ Factors determining cost of capital generally don't include rate design.

✦ No company accepted a decreased ROE in return for decoupling.

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Decoupling Tariffs

✦ APPROVED

1. CA – Pacific Gas and Electric
2. CA - San Diego Gas and Electric
3. CA – Southern California Gas
4. CA – Southwest Gas
5. IN – Vectren Indiana
6. MD – Baltimore Gas and Electric
7. MD – Washington Gas
8. NJ – NJ Natural Gas
9. NJ – South Jersey Gas
10. OH – Vectren Ohio
11. OR – Cascade
12. OR – NW Natural Gas
13. NC - Piedmont
14. UT – Questar

✦ PENDING

1. AZ – UNS Gas
2. DE - Delmarva
3. NM – Public Service Co. of NM
4. TN – Chattanooga Gas
5. VA – Washington Gas
6. WA – Avista
7. WA –Cascade
8. WA –Puget Energy

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Decoupling Proposals Denied or Rejected

✦ Rejected consideration
  - ✓ CT – For all electric and gas utilities – Commission said a conservation tracker already exists

✦ Denied
  - ✓ AR – CenterPoint Southern Operations – State engaging in generic energy efficiency collaborative
  - ✓ AZ – Southwest Gas
  - ✓ GA – Atmos
  - ✓ IN – Citizens Gas and Coke Utility – State engaging in a generic energy efficiency investigation
  - ✓ NV – Southwest Gas – Comm. said utility could refile

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What's In Decoupling for the Customer?

✦ Decoupling imposes no additional costs to the customer beyond those approved in the rate case.

✦ Decoupling leads to reduced customer bill variability from stabilized fixed cost recovery.

✦ Reduced natural gas consumption from conservation leads to lower total bills.

✦ Possible reduction in uncollectible bills, which are a system cost paid by customers.

✦ Reducing overall gas demand could lower gas prices. A 2003 ACEEE Study projected 20% decline in gas prices from reduction in natural gas of 1.9% and electricity consumption of 2.2%.

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Independent 3rd Party* Evaluation of NW Natural Conservation Tariff
PUC Required Study Found:

✦ Decoupling tariff was an effective means of reducing NW Natural's disincentive to promote energy efficiency.

✦ Decoupling changed company focus from marketing to promoting energy efficiency.

✦ Oregon now has the highest share of high-efficiency furnaces in the nation (as a percentage of new furnace sales).

✦ No customer complaints received regarding decoupling tariff and only 26 complaints regarding public purpose funding.

✦ Tariff improved NW Natural's ability to recover fixed costs.

✦ Decoupling did not shift risk to customers.

✦ No negative effects on customer service

*Christensen Associates

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Flat Delivery Services Charge
Same Outcomes as Decoupling

✦ Approved

    ✓ ND – Xcel – All fixed costs are recovered in the fixed monthly service charge - $15.69

    ✓ OK - ONEOK - Customers choose plan with high monthly service charge and low distribution charges, or a plan with low monthly service charge and high distribution charges.

    ✓ GA – Atlanta Gas Light – individually determined monthly service charge

✦ Pending

    ✓ MI – Semco Pending - $24.09 or $25.18

    ✓ MO – MGE Pending - $27.50

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Flat Delivery Service Charge (FDS*) Calculation
Average Usage

✦ <u>FDS Rate Design</u>

- ✓ 100 Mcf/year
- ✓ $300 Distribution Charge/year
- ✓ $300/12 months =
- ✓ $25 Distribution Charge/month

*Flat Delivery Service Charge

✦ <u>FDS with 5% Volume Reduction</u>

- ✓ 95 Mcf/year
- ✓ $25 Distribution Charge/month
- ✓ $25*12 months =
- ✓ $300 Distribution Charge <u>no matter how many Mcf consumed</u>

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Flat Delivery Service Charge Calculation
High and Low Usage

✦ **High Volume Cust. (133 Mcf/yr) with 5% Volume Reduction**

- ✓ 126 Mcf/customer/yr
- ✓ $25 margin/month
- ✓ $300 marginal revenue no matter how many Mcf consumed

✦ **Low Volume Cust. (67 Mcf/yr) with 5% Volume Reduction**

- ✓ 64 Mcf/customer/yr
- ✓ $25 margin/month
- ✓ $300 Distribution Charge no matter how many Mcf consumed

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What's In Flat Delivery Charge for the Customer?

✦ Customers do not overpay or underpay the distribution charge each month.

✦ Improved bill stability over both traditional rate design and decoupling.

✦ Pricing is similar to other consumer services, i.e., telephone, cable, and internet.

✦ Bills are simpler and easier to understand.

✦ The amount of bill variability due to commodity prices is transparent to the customer.

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Summary

✦ Gas utilities don't make money on the cost of the gas – they loose money when the price is high.

✦ Gas utility service is a fixed cost business.

✦ Traditional rate design is more than 100 years old and discourages energy conservation.

✦ Revenue decoupling and other forms of innovative rate design break the link between a utility's earnings and the energy consumption of its customers.

✦ Decoupling works by adjusting rates up or down in response to changes in customer usage.

✦ Flat delivery service charges work by charging a flat rate regardless of usage.

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THANK YOU

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