Decoupling in New Mexico

Coalition of Sustainable Communities NM
Decoupling Roundtable

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Subjects to be Covered

- General Overview of Revenue Decoupling
- Design Options in Decoupling
- How is Decoupling Being Implemented Elsewhere
Decoupling Removes the Revenue Barrier to Energy Efficiency

Source: Lazard, 2014
From 2006-2016:

Retail sales of electricity in the U.S. increased by just 2.5% nationally...

and DECLINED in 27 states
A “Layer Cake” of Benefits from Electric Energy Efficiency

Utility System Benefits
- Power Supply
- T&D Capacity
- Environmental
- Losses and reserves
- Risk
- Credit and Collection

Participant Benefits
- Other Fuels
- Water, Sewer
- O&M Costs
- Health Impacts
- Employee Productivity
- Comfort

Societal Benefits
- Air Quality
- Water
- Solid Waste
- Energy Security
- Economic Development
- Health Impacts
Rate of Return Regulation

Under rate of return regulation, utilities can increase earnings by:

- Increasing operational efficiency (reducing costs)
- Selling more energy (“throughput incentive”)
- Building infrastructure (earning a return on the investment)
Rate of Return Regulation Refresher

**Revenue Requirement** = Test Year Expenses + Depreciation + Taxes + (Rate of Return * Rate Base)

**Revenue Requirement** is recovered from (#Customers * Customer Charge) + (Projected Sales * Price/kWh)

– Price/kWh collects all fuel costs and, generally, non-customer-specific fixed costs
Decoupling

- Decoupling designed to address throughput incentive by breaking link between utility sales and revenue

- With decoupling, the Commission, in a rate case proceeding, determines the revenue requirements which become basis for determining revenue the utility will receive in rates

- At the end of an agreed upon period, the utility’s authorized revenue requirements are measured against actual revenues

- Rates are then reconciled to allow the utility to recover (positive or negative) the difference between revenues authorized and revenues received
How Decoupling Works

<table>
<thead>
<tr>
<th>Periodic Decoupling Calculation</th>
<th>From the Rate Case</th>
<th>Post Rate Case Calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Revenues</td>
<td>$10,000,000</td>
<td></td>
</tr>
<tr>
<td>Test Year Unit Sales</td>
<td>100,000,000</td>
<td></td>
</tr>
<tr>
<td>Price</td>
<td>$0.10000</td>
<td></td>
</tr>
<tr>
<td>Actual Unit Sales</td>
<td>99,500,000</td>
<td></td>
</tr>
<tr>
<td>Required Total Price</td>
<td>$0.1005025</td>
<td></td>
</tr>
<tr>
<td>Decoupling Price &quot;Adjustment&quot;</td>
<td>$0.0005025</td>
<td></td>
</tr>
</tbody>
</table>
Up until now, decoupling rate adjustments have generally been very small
Credit Implications of Decoupling

- Standard & Poor views decoupling as generally positive from a credit perspective:
  - Provides opportunity for a utility to earn a pre-determined level of revenue regardless of the actual kWh sold
  - Enables utilities to project cash flow more accurately and avoid much of the earnings volatility from changes due to policy goals (and other influences – weather/economy) that occur under traditional regulations
  - Reduces need for rate case filings, resulting in lower overall costs for the utilities
Design Options for Decoupling

Since the NM legislature has passed a law requiring decoupling, the debate and emphasis should focus on design to ensure the best mechanism as there are multiple design choices to make.
Applicability of Utility Function

Application of Revenue Regulation by Utility Function

- What Type of Utility is It?
  - Vertically Integrated
  - Distribution Only

- What Costs are Being Included in the Decoupling Mechanism?
  - Wires and Power Supply Costs
  - Wires
Applicability to Customer Class
What costs are included?

- Give strong consideration to limiting recovery to base rates only
- Some riders like fuel costs are based on actual consumption
- However, other riders are policy based, like a system benefit charge
Frequency of Rate Cases

Mini-rate case probably works best to adjust revenue requirements to recover costs and recognize reduces expenses between full rate cases.
Adjustment to ROE

Ex Ante Adjustment to ROE/Capital Structure

Yes

No
Revenue Adjustment Mechanisms

- **No RAM** – No adjustment made to revenue requirements. Rates are not adjusted until the next rate case.
- **Stair-Step** – Predetermined adjustments made in last rate case based on forecasts of projected cost increases.
- **Indexing** – Adjustments to revenue requirements are tied to factors such as inflation, industry productivity, customer growth.
- **Revenue Per Customer** – Revenue requirement determined on a per customer basis and is adjusted for the total number of customers served.
## Periodic Decoupling Calculation

### From the Rate Case

<table>
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<tr>
<th>Description</th>
<th>Value</th>
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<td>Target Revenues</td>
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</tr>
<tr>
<td>Test Year Unit Sales</td>
<td>100,000,000</td>
</tr>
<tr>
<td>Price</td>
<td>$0.100000</td>
</tr>
</tbody>
</table>

### Post Rate Case Calculation

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual Unit Sales</td>
<td>99,500,000</td>
</tr>
<tr>
<td>Required Total Price</td>
<td>$0.1005025</td>
</tr>
<tr>
<td>Decoupling Price Adjustment</td>
<td>$0.0005025</td>
</tr>
</tbody>
</table>
### Revenue Per Customer Periodic Decoupling Calculation

**From the Rate Case**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Revenues</td>
<td>$10,000,000</td>
</tr>
<tr>
<td>Test Year Unit Sales</td>
<td>100,000,000</td>
</tr>
<tr>
<td>Price</td>
<td>$0.10000</td>
</tr>
<tr>
<td>Number of Customers</td>
<td>200,000</td>
</tr>
<tr>
<td>Revenue per Customer (RPC)</td>
<td>$50.00</td>
</tr>
</tbody>
</table>

**Post Rate Case Calculation**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Customers</td>
<td>200,500</td>
</tr>
<tr>
<td>Target Revenues ($50 x 200,500)</td>
<td>$10,025,000</td>
</tr>
<tr>
<td>Actual Unit Sales</td>
<td>99,750,000</td>
</tr>
<tr>
<td>Required Total Price</td>
<td>$0.1005013</td>
</tr>
<tr>
<td>Decoupling Price “Adjustment”</td>
<td>$0.0005013</td>
</tr>
</tbody>
</table>
Revenue Adjustment Mechanisms

• **Annual Review Decoupling (aka Attrition Decoupling)** – Rates are periodically adjusted for incremental and decremental known and measurable changes to rate base and operating expenses.
  - Note that the attrition adjustment would allow for a downward adjustment to reflect further depreciation of capital assets.
Revenue Adjustment Mechanisms

- **K Factor** – An adjustment used to increase or decrease overall growth in revenues between rate cases
- **Hybrid** – Allows regulators to combine various RAM mechanisms to adjust rates
  - For example, combining a per customer and attrition adjustment could create more accuracy in terms of assessing appropriate adjustment amount
Symmetry of Refunds/Surcharges

- Surcharge/Credit Symmetry
- Yes
- No
Allocation of Refunds/Surcharges

Across the board decoupling allocation spreads the surcharge to all customers. Consider customer contribution to total load in terms of allocation as opposed to the same kwh charge across all classes.
Adjustment Mechanisms for Refunds/Surcharges

Note there may be a legal concern with adjusting base rates between a rate case that does not exist with adjusting a rider between a rate case.
Frequency of True-Ups of Refunds/Surcharges

- Current method avoids any carrying costs for deferrals but is more volatile.
- Accrual method smooths out dramatic highs and lows and like a budget bill, creates a single rider charge for the year until next true-up.
Caps on Refunds/Surcharges

Caps can be an effective tool in managing rate impacts.
If you put a cap on surcharges, you may need to consider carrying costs associated with any deferral.
Design Approaches to Protect Customers

• Symmetry – ensure that credits are provided.
• Stability: cap on rate changes or bands around size of rate adjustment, (e.g. plus or minus 3%)
  o Provisions for carry-over of over or under recoveries
• Bill simplification
• Changes to capitalization ratio to reflect risk reductions (Recommended Approach); or
• Reductions in utility return on equity to reflect reduced risk, (e.g. 50 basis points)
• Controversial among utilities, environmental groups and consumer groups
Design Approaches to Protect Customers

- Direct more energy efficiency/DERs
  - Decoupling conditioned on comprehensive programs and minimum energy efficiency requirements
- Low income provisions
  - Rate design approaches (inclining rates, TOU)
  - EE programs directed towards LI
Decoupling Design and Choices

• Utility rate design matched with decoupling – opportunity to adjust rate design to send better price signals and to adapt to smart grid based on a customer focused point of view
  • Inclining Rate Structure
  • Flat Rate Structure
  • Declining Rate Structure

• Note that a dynamic pricing scheme can be layered onto any of these rate options
## Customer Considerations

### Using Rate Design and Decoupling Surcharges to Effect Policy Goals

<table>
<thead>
<tr>
<th></th>
<th>Summer</th>
<th>Winter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Charge</td>
<td>$7.00</td>
<td>$7.00</td>
</tr>
<tr>
<td>First 500 kWh</td>
<td>$0.80</td>
<td>$0.073</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Minus any decoupling credit</td>
</tr>
<tr>
<td>Next 2,500 kWh</td>
<td>$0.102</td>
<td>$0.093</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Plus any decoupling surcharge</td>
</tr>
<tr>
<td>Over 3,000 kWh</td>
<td>$0.120</td>
<td>$0.113</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Plus any decoupling surcharge</td>
</tr>
</tbody>
</table>
Decoupling: Key Takeaways

- It’s flexible, customizable
- It’s been done before, so models exist
- It can serve policy goals of most states
- It can be designed to protect consumers
How is decoupling being implemented elsewhere?
# How States Have Approached Decoupling

<table>
<thead>
<tr>
<th>Feature</th>
<th>Gas Decoupling</th>
<th>Electric Decoupling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue change between rate cases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue-per-customer</td>
<td>23</td>
<td>4</td>
</tr>
<tr>
<td>Attrition adjustment</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>No change</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>No separate tariff</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Timing of Rate True-ups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual</td>
<td>19</td>
<td>8</td>
</tr>
<tr>
<td>Semi-annual/quarterly</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Monthly</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Weather</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not weather-adjusted</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>Weather-adjusted</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Limit on adjustments and/or dead-band</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Per class calculation and adjustments</td>
<td>25</td>
<td>7</td>
</tr>
<tr>
<td>Earnings Test</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Pilot/known expiration date</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>Surcharges only</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total Utilities Analyzed</strong></td>
<td><strong>28</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>
Resources

- Revenue Regulation and Decoupling: A Guide to Theory and Application (also includes 6 case studies on decoupling)
- Decoupling Design: Customizing Revenue Regulation to Your State’s Priorities
- raponline.org
About RAP

The Regulatory Assistance Project (RAP)® is an independent, non-partisan, non-governmental organization dedicated to accelerating the transition to a clean, reliable, and efficient energy future.

Learn more about our work at raponline.org