



UTILITY DECOUPLING IN THE WEST: ANALYSIS OF WESTERN STATES' POLICY

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UTILITY DECOUPLING IN THE WEST

In October 2016, the Montana Public Service Commission (PSC) held a roundtable discussion on decoupling in an effort to explore how revenue regulation works, how it differs from traditional rate regulation, options for designing revenue regulation mechanisms, and how revenue regulation works in states that implement it. Senate Joint Resolution No. 31, which passed in the 2017 Legislative Session, directs the committee to further investigate utility decoupling in Montana.

INTRODUCTION

Decoupling policy separates a regulated utility's profits from its total electric or gas sales so a utility isn't incentivized to sell more electricity or gas. The implementation of decoupling policy is most often discussed by the commissions that regulate utilities and often in terms of ratemaking. The policy is a mechanism to encourage regulated utilities to support energy efficiency, but it is not a tool for increasing energy efficiency. Instead, it is a ratemaking mechanism that removes what can be seen as a utility's incentive to discourage energy efficiency.

A utility collects revenues based on a revenue requirement that is typically determined by a regulatory commission and is typically on a per-customer basis. Regulatory commissions set rates every few years that allow a utility to recover costs and to earn a fair return on investment. The actual revenue earned by a utility, however, varies based on how much energy customers use each month, which results in the utility earning either more or less than the established rate. With decoupling, utility revenue is established based on an amount needed to cover established costs. Rates are then allowed to change with consumption to meet the revenue target. To further simplify, under decoupling, a utility's fixed costs (transmission lines and other infrastructure) are allocated on a per-customer basis for customers. Rates are set by the commission to cover those costs. Then each year, the commission reviews actual costs and the number of customers. Rates are adjusted upward to pay extra costs if the per-customer cost is more than originally estimated. Rates are reduced for the next year if the fixed costs are less than estimated. The utility is then able to recover those costs, regardless of how much electricity or gas a customer uses.



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Traditional Rates:
 $\text{Revenue} = \text{Fixed Price} \times \text{Sales}$

Decoupled Rates:
 $\text{Price} = \text{Fixed Revenue} / \text{Sales}$

Several methods exist for implementing decoupling policy. For example, some methods implement true-up mechanisms that automatically adjust rates based on consumption or through a balancing account, where excess revenue is stored or makes up for revenue shortfalls. Utilities can also implement full, partial, or limited decoupling.

The table below outlines two common methodologies found in western states.

Decoupling Methodology	Key Elements
Accrual Revenue Per Customer (RPC)	Allowed revenue computed on an RPC basis. One rate adjustment per year.
Accrual Attrition	Allowed revenue determined in periodic general rate cases. Changes based on specified factors determined in annual attrition reviews. Rates adjusted annually.

Regulatory Assistance Project: 2011

WESTERN STATES ELECTRIC DECOUPLING

In the United States, 16 states have implemented electric utility decoupling programs for at least one utility. In the West, California, Colorado, Idaho, New Mexico, Oregon, and Washington currently implement electric revenue decoupling.¹

The utilization of decoupling policy mechanisms varies slightly from state to state. The methods most commonly found in the west are Accrual Rate per Customer or Accrual Attrition. The accrual policies rely on public service commissions to set base allowed revenue figures and reconcile actual revenue with allowed revenue, refunding the surplus or levying surcharges for the deficit using balancing accounts.

The following are three examples of decoupling mechanisms in the West:

California

California’s decoupling method utilizes the accrual attrition method. The California Public Utilities Commission (CPUC) enacted revenue regulation policies for Pacific Gas & Electric Company (PG&E), Southern California Edison, and San Diego Gas & Electric for the first time in 1982. In 1996, the CPUC suspended revenue regulation with the implementation of utility restructuring.² The California Legislature passed Assembly Bill No. 29 in 2001 to establish energy efficiency programs that sought to reduce energy usage in the state. The bill required the CPUC to reimplement revenue generation.

In the case of PG&E, California implements the accrual attrition method of full decoupling in revenue regulation cases. Revenue requirements are fixed in a rate case and then incrementally adjusted in periodic “attrition cases.” The CPUC typically determines utilities’ revenue requirements every 3 years in a general rate case. Future cost requirements and sales levels are forecasted in a future test year to determine the revenue requirement. Two methods are available for revenue adjustment. The first, the stair-step method, predetermines revenue requirement adjustments during the general rate case. The second involves changes to the post-test-year revenue requirements.³

During the general rate case, the CPUC also determines post-test-year attrition adjustments. Attrition is defined as the decrease in utility revenues compared with costs between rate cases. Attrition adjustments aim to allow the utility to recover increased costs. Balancing accounts are used to track the difference in billed revenue and authorized revenue on a monthly

¹ Richard Sedano, A Decoupling Foundation: Montana Public Service Commission Workshop on Decoupling, Regulatory Assistance Project

² Decoupling Case Studies: Revenue Regulation Implementation in Six States, Regulatory Assistance Project

³ Decoupling Case Studies: Revenue Regulation Implementation in Six States, Regulatory Assistance Project

basis. The total annual surplus or deficit at the end of the year is refunded or collected from ratepayers in the following year through rate adjustments.⁴

Idaho

Idaho utilizes a rate-per-customer method. The Idaho Public Utilities Commission (IPUC) made permanent a 5-year pilot program for the decoupling of Idaho Power Company's revenue in April 2012. The program is based on a fixed cost Adjustment (FCA) mechanism that compares the authorized fixed-cost revenue requirement with weather-normalized sales. The difference is reconciled annually for residential and small business customers. Allowed revenue is determined on a per-customer basis during the general rate case. Total fixed costs are adjusted based on the number of customers.

During general rate cases, the IPUC establishes a revenue requirement based on fixed costs collected through residential and small general service customer rates. The commission also establishes a fixed-cost-per-customer rate and a fixed-cost-per-kWh rate. Fixed costs are defined broadly to include return, taxes and labor expenses.

Revenue adjustment occurs between general rate cases utilizing the FCA mechanism. The adjustment is determined by multiplying the fixed-cost per-customer rate (FCC) by the total number of customers for each customer class to determine the allowed cost recovery amount. The amount is then compared to the fixed costs realized by the company by multiplying the weather-normalized sales for each customer class by the fixed-cost per-kWh rate determined in the general rate case. The difference determines the Fixed Cost Adjustment between general rate cases.

IPUC Fixed Cost Adjustment (FCA) Formula

$$\text{FCA} = (\text{Total Customers} \times \text{Fixed-cost Per Customer}) - (\text{Weather Normalized Sales} \times \text{cost-per-kWh})$$

Idaho reconciles actual revenue with authorized revenue on a monthly basis. The actual fixed-cost recovered amount is determined based on the weather-normalized sales for each customer class multiplied by the fixed-cost per-kWh rate. The methodology used to weather-normalize actual monthly energy used in the FCA is the same as used in the general rate case. The actual fixed-cost recovered is subtracted from the allowed FCA and the difference is recorded as a line item in a monthly Power Cost Adjustment (PCA) report provided to the IPC. The differences are deferred to the end of the year with interest. Each year, the company totals the FCA results, including interest. If a deficit occurs, the amount is recovered the following year. If the company has over collected its fixed-cost revenue, the amount is returned to customers through a credit or surcharge mechanism. The FCA is recovered proportionally from residential and small general service customers. Annual adjustments are capped at three percent and differences beyond that are rolled over until the next period. Adjustments to the rate occur June 1 of the year following the previous 1-year period from January 1 to December 31.⁵

⁴ Decoupling Case Studies: Revenue Regulation Implementation in Six States, Regulatory Assistance Project

⁵ Decoupling Case Studies: Revenue Regulation Implementation in Six States, Regulatory Assistance Project

Oregon

Oregon enacted a slightly different rate-per-customer method. The Oregon Public Utility Commission (OPUC) originally approved a decoupling mechanism for Portland General Electric Company (PGE) in 2009.⁶ PGE is the only electric utility using a decoupling mechanism in the state that utilizes the Accrual Revenue Per Customer method.

Oregon's Sales Normalization Adjustment (SNA) mechanism for residential and small business customers sets a fixed charge per customer (FCC) rate. The calculation is made each month based on the difference between allowed revenues toward fixed costs and actual weather-adjusted revenues toward fixed costs.

OUTC Sales Normalization Adjustment (SNA) Formula

$$\text{SNA} = (\text{FCC} \times \text{Customers}) - (\text{Fixed Charge Energy Rate} \times \text{Weather-normalized sales})$$

FCC: Fixed Charge per Customer Rate

Customers: Total number of customers

FCE: Fixed Charge Energy Rate

Sales: Weather-normalized sales

The resulting value is placed in a tracking account called the SNA balancing account. The balancing account records both over collections and under collections. The resulting surplus or deficit is refunded or recovered through a change to electric rates in the following year. Rate increases are capped at 2 percent and rate change are calculated for each tariff schedule.⁷

WESTERN STATES NATURAL GAS DECOUPLING

Natural gas decoupling mechanisms are structured similarly to programs implemented for electricity rates. In the United States, 23 states have decoupled at least one natural gas utility. In the West, Arizona, California, Idaho, Nevada, Oregon, Utah, Washington, and Wyoming implement natural gas decoupling.⁸

Washington

In 2006, Washington voters approve Initiative 937, which resulted in the passage of the Washington Energy Independence Act. That act gave the Washington Utilities and Transportation Commission (WUTC) the authority to implement decoupling policies.

Avista Utilities' natural gas division in Washington implemented an Accrual Revenue Per Customer (RPC) mechanism and provides an example of how decoupling works in the natural gas sector, as well as an example of partial decoupling. To calculate the monthly allowed delivery revenue per customer (RPC), the WUTC utilizes a seven-step formula.

⁶ Order No. 09-020, Oregon Public Utility Commission

⁷ Schedule 123 tariff, Portland General Electric Company

⁸ Richard Sedano, A Decoupling Foundation: Montana Public Service Commission Workshop on Decoupling, Regulatory Assistance Project

1. Determine the Total Normalized Revenue - The Total Normalized Revenue is equal to the final approved base rate revenue approved in the Company's last general rate case.
2. Determine Variable Gas Supply Revenue - The Normalized terms by rate schedule from the last approved general rate case are multiplied by the approved Schedule 150 PGA rates to determine the Variable Gas Supply Revenue.
3. Determine Delivery Revenue – To determine the Delivery Revenue, the mechanism subtracts the Variable Gas Supply Revenue from the Total Normalized Revenue.
4. Remove Basic Charge Revenue – included in the Delivery Revenue is revenue recovered from customers in Basic fixed charges. Because the decoupling mechanism only tracks revenue that varies with customer energy usage, the revenue from Fixed Charges is removed. The number of Customer Bills, multiplied by the applicable Fixed Charges determines the total Fixed Charge revenue by rate schedule.
5. Determine Allowed Decoupled Revenue – Allowed Decoupled Revenue is equal to the Delivery Revenue (Step 3) minus the Basic Charge Revenue (Step 4).
6. Determine the Allowed Decoupled Revenue per Customer – To determine the annual per customer Allowed Decoupled Revenue, divide the Allowed Decoupled Revenue by the Rate Year number of Customers to determine the annual Allowed Decoupled Revenue per Customer (by Rate Group).
7. Determine the Monthly Allowed Decoupled Revenue per Customer - to determine the monthly Allowed Decoupled Revenue per customer, the annual Allowed Decoupled Revenue per customer is shaped based on the monthly therm usage from the rate year.

Once monthly allowed delivery revenue per customer is calculated, Avista recognizes actual revenue with authorized revenue on a monthly basis by multiplying the number of customers by the monthly-allowed decoupled revenue per customer, to find the allowed decoupled revenue for that month. The remaining balance of actual decoupling revenue and allowed decoupled revenue is calculated and deferred to a balancing account. Based on the realized surplus or deficit at the end of the process, Avista Utilities files a request annually with the WUTC to either surcharge or rebate, over the following year, the amount accumulated in the balancing accounts. Rate increases are capped at 3 percent annually.⁹

NEXT STEPS

1. Is there a specific state or utility that the committee would like to focus on?
2. Should the study focus on Accrual Revenue per Customer or Accrual Attrition methods moving forward?
3. Should the study focus on gas and electric decoupling or both?
4. Should the scope of the study be narrowed to specific utilities in Montana or a wide view? Should electric cooperatives be included in the study?
5. Who does the committee want to hear from? For example, specific utilities, outside resources, the Public Service Commission, or others?

⁹ Schedule 175, Avista Corporation