GRACEFUL SYSTEMS LLC

RATE IMPACTS AND KEY DESIGN ELEMENTS OF GAS AND ELECTRIC UTILITY DECOUPLING

A COMPREHENSIVE REVIEW

Pamela G. Lesh

6/30/2009

This report catalogues all of the decoupling mechanisms in place for electric or gas utilities as of Spring 2009, and discusses several older, now expired, mechanisms as well. Where the information was obtainable, it includes the rate adjustments made under the decoupling mechanisms and expresses those as a percentage of rates. It also reviews major features of the mechanisms studied.

RATE IMPACTS AND KEY DESIGN ELEMENTS OF GAS AND ELECTRIC UTILITY DECOUPLING:
A COMPREHENSIVE REVIEW
Prepared by Pamela G. Lesh
June 2009

This report compiles the rate impact experience during this decade with decoupling of retail gas and electric utility revenues from sales volumes and provides, along with this, information on relevant order numbers, statutes, mechanism descriptions, and implementing tariffs. Sources included utility and state regulatory commission websites, the American Gas Association and the Edison Electric Institute, and, in a few cases, helpful utilities. Immediately below is a brief explanation of "decoupling" as used in this report, followed by a summary of the findings and a short description of methodology. The report concludes with observations about utility ratemaking.

Decoupling

Decoupling is a regulatory term indicating that, through any one of several means, a given energy utility does not derive the portion of its revenues necessary to provide it an opportunity to recover its fixed costs of service on the basis of its sales of natural gas or electricity. Fixed costs of service include such things as the capital recovery cost of installed plant and equipment (depreciation, debt interest, and equity return), most operations and maintenance expenses and taxes. The largest cost that is not fixed is typically the cost of fuel or purchased power.

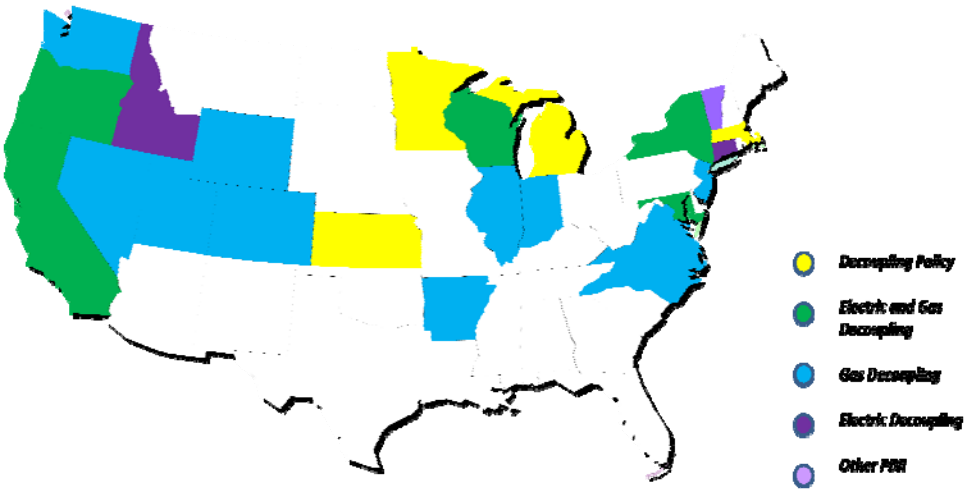
One primary means of decoupling, albeit with many variations, is through a regulatory adjustment mechanism that adjusts rates periodically to ensure that a utility records as revenue for fixed cost recovery no more and no less than the amount of revenue authorized for that cost coverage. This means of accomplishing decoupling does not affect how customers pay for energy utility services, enabling utilities to maintain volumetric rates and the incentive for customers to conserve or use energy more efficiently. In general, current rate designs include some amount of fixed customer charge per month and a per unit charge based on either gas or electricity consumption, or demand, or both. Although the utility continues to receive revenues from customers on this basis under a decoupling mechanism, it books only the revenue to cover fixed costs that its regulator has authorized, typically in a rate case or through the operation of a formula for calculating a change in fixed costs over time. For example, some such formulas change revenues authorized for fixed cost recovery according to the change in the number of customer accounts (often called revenue per customer); others change revenues for fixed cost recovery according to an inflation index, decreased for an assumed amount of productivity improvement (often called an attrition adjustment). On some regular basis, the decoupling mechanism provides a rate adjustment to ensure that customers, in effect, receive refunds or pay surcharges based on whether the revenues the utility actually received from customers were less or greater than the revenues the regulator authorized. This difference can occur for many reasons, primary among which

are weather, economic conditions, and customer behavior that differ from assumptions in the ratemaking process.

It is also possible to break the link between fixed cost recovery and electricity or natural gas consumption by changing how customers pay for energy utility services. In general, this is called "straight fixed-variable" rate design, in which the fixed monthly customer charge recovers all of the utility's fixed costs of service and the variable, energy-related charge, covers only the variable cost of energy. Some Commissions adopting this type of rate design have called it 'decoupling." While this rate design does break the link between sales and fixed cost recovery, it does so by greatly diminishing customer incentives to conserve or invest in energy efficiency. Moreover, the change in rate design from a more traditional form can significantly shift costs within and between classes of customers. In particular, those customers with lower than average consumption can experience much higher bills as costs shift from variable, usage-based, charges to fixed, billing period, charges. This decoupling report excludes examples of this rate design because it does not result in adjustments to rates as the regulatory mechanism method does.

Review Summary

A total of 28 natural gas local distribution gas utilities (LDCs) and 12 electric utilities, across 17 states, have operative decoupling mechanisms.[1] Six other states have approved decoupling in concept, through legislation or regulatory order, but specific utility mechanisms are not yet in place. The map below shows the states covered by this report:

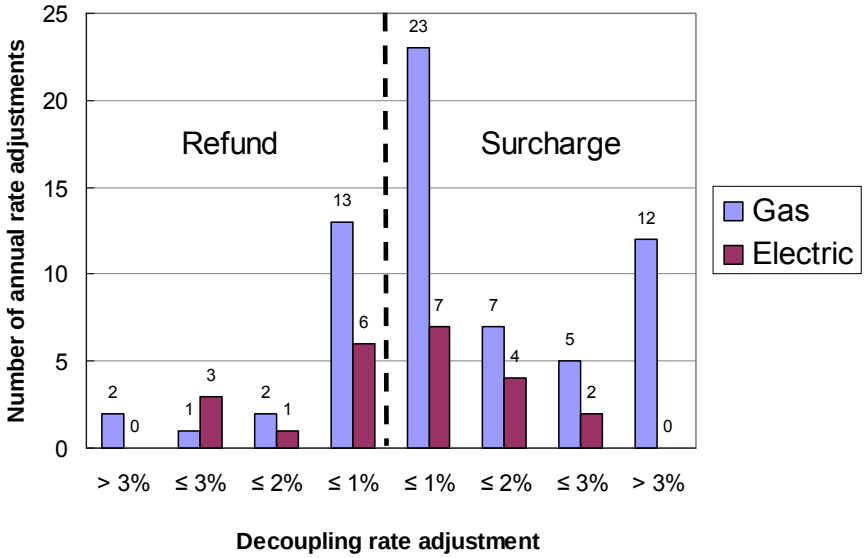


[1] This report includes two other current electric regulatory mechanisms that operate to some extent to decouple utility revenues from sales but do not permit calculation of decoupling adjustments. It also includes information on a few now-expired decoupling mechanisms, to the extent such information was discoverable.

Many of the mechanisms that exist began operation only within the last few years, although the California utilities have had some form of decoupling for much longer. Based on the available data, this review supports two definitive conclusions:

- Decoupling adjustments tend to be small, even miniscule. Compared to total residential retail rates, including gas commodity and variable electricity costs, decoupling adjustments have been most often under two percent, positive or negative, with the majority under 1 percent.[2] Using Energy Information Administration (EIA) data for 2007 on gas and electric consumption per customer and average rates, this amounts to less than $1.50 per month in higher or lower charges for residential gas customers and less than $2.00 per month in higher or lower charges for residential electric customers.
- Decoupling adjustments go both ways, providing both refunds and surcharges to customers. This is particularly true for those mechanisms that operate on a monthly basis, but also is true for those adjusted annually or semi-annually. There are many reasons, of course, that actual revenues can deviate from the revenues assumed in ratemaking. Most of the mechanisms do not adjust revenues for the effects of weather, leaving that as the primary cause of greater and lower sales volumes, particularly for residential rate schedules. Other causes include energy efficiency, programmatic and otherwise, customer conservation, price elasticity, and economic conditions. Regardless of the particular combination of causes for any given adjustment, no pattern of either rate increases or decreases emerges.

The figure below summarizes the distribution of decoupling adjustments in place since 2000.



[2] These are not actual rate changes, simply a comparison of the decoupling adjustment to the total rate at or near the time of the adjustment. See methodology summary for an explanation of why it is impossible to determine actual decoupling rate changes that customers may have experienced. Counts in the figure include only the annual average of those mechanisms that have monthly adjustments.

By comparison, rate adjustments under purchased gas cost adjustment or fuel/purchased power cost adjustment clauses tend to be much larger. Although a review of actual adjustments under these clauses was beyond the scope of this study, the following history for one electric (Idaho Power Company) and one gas utility (Northwest Natural Gas Company), both of which had decoupling mechanisms for part of the period, provides an example for context:

		Northwest Natural		Idaho Power	
Year		PGA % Change	Decoupling % Change[3]	PCA % Change (Res)	Decoupling % Change
1995		(6.2)			
1996		(4.8)			
1997		10.5			
1998		9.2			
1999		7.2			
2000		21.4			
2001		20.8			
2002		(12.7)		7.5	
2003		4.9	0.6	(18.9)	
2004		20.1	0.36	0	
2005		16.6	0.77	0	
2006		3.8	(0.27)	(14.0)	
2007		(8.7)	(0.1)	11.0	
2008		15.6	<(1.0)	8.45	(0.8)
2009				10.2	0.8

The information gathered below supports several other observations about decoupling:

- The mechanisms have a great variety of names, almost none of which contain the word "decoupling." Names ranged from "Billing Determinant Adjustment" to "Volume Balancing Adjustment" to "Bill Stabilization Rider" and more.
- Most mechanisms appear in a separate tariff page, although in one or two cases the mechanism is combined with an energy efficiency program tariff and the California utilities do not have a tariff for decoupling. Instead, the California utilities have regulatory authority to make the calculations and rate adjustments as part of an "Annual True-up" procedure.
- Almost all of the gas utilities with decoupling mechanisms also adjust rates to account for the effects of weather on revenues. For some, this occurs logically under the decoupling mechanism, which performs calculations based on actual, not weather-adjusted, revenues. For others, eliminating the effects of weather on the revenues the utility collects to cover fixed costs occurs under a separate tariff. Under either approach, the utilities no longer face a risk of under-recovering fixed costs or reaping a windfall if weather is different from that

[3] For Northwest Natural, the decoupling adjustment is included in the overall PGA; thus, these are not additive.

assumed in the ratemaking process. In contrast, a couple of electric utilities calculate decoupling adjustments on the basis of weather-adjusted revenues. For these, the utility keeps revenues associated with sales caused by weather more extreme, and forgoes revenues lost because of weather milder, than that assumed for ratemaking purposes.

- Most of the mechanisms produce an annual adjustment, but a handful of utilities adjust rates monthly and one or two semi-annually. The monthly adjustments tend to be very small but can go up and down six times in as many months. The tables below show only the annual average of monthly adjustments and, in a few cases, high and low adjustments during the year.
- Most mechanisms perform the calculation of the difference between actual fixed cost revenues and authorized fixed costs revenues on a per customer class or per rate schedule basis, refunding or surcharging the result only to that schedule or class.
- A number of these decoupling mechanisms are in place only on a "pilot" basis, subject to cancellation or further regulatory process after 3-4 years.
- Most of the mechanisms allow utilities to keep additional revenues from growth in the number of customer accounts during a decoupling period. This can occur either by expressing the fixed costs as a revenue-per-customer amount and reconciling actual revenues to the revenue per customer amount times the current number of customers, or by adjusting the allowed revenue requirement for customer growth and reconciling actual revenues to that adjusted amount. A few utilities receive an explicit attrition adjustment, approved by the Commission and not dependent on the number of customers.
- Some of the 28 mechanisms include some unusual features. For three utilities, adjustments only occur if they are surcharges; the mechanism does not require refunds. Another two utilities can collect surcharges only if savings in gas costs offset the lost margin. Some mechanisms limit the dollar amount or percentage of rate change permitted, either deferring any excess for later recovery/credit or simply eliminating it.

The table below summarizes some of the different features of decoupling mechanisms, indicating how many of the mechanisms have each type of feature.

Feature	Gas Decoupling	Electric Decoupling
Revenue change between rate cases		
Revenue-per-customer[1]	23	4
Attrition adjustment[2]	3	4
No change	3	1
No separate tariff	3	3
Timing of Rate True-ups		
Annual	19	8
Semi-annual/quarterly	2	1
Monthly	4	3
Weather[3]		

Not weather-adjusted	20	10
Weather-adjusted	8	2
Limit on adjustments and/or dead-band[4]	9	6
Per class calculation and adjustments[5]	25	7
Earnings Test[6]	4	
Pilot/known expiration date	11	4
Surcharges only	3	
Total Utilities Analyzed	**28**	**12**

Notes to table

1. "Revenue per customer" means that the decoupling mechanism calculates the authorized revenue to which the utility will reconcile its actual revenues by dividing the last approved fixed cost revenue requirement by the number of customer accounts assumed in that ratemaking process, and then multiplying the per-customer amount by the number of customers in the current decoupling period. For example, if the authorized fixed cost revenue requirement was $1 billion and the ratemaking number of accounts was 1 million, the fixed cost per customer amount would be $1000/year. If, during a given decoupling year, the actual number of customer accounts was 1,050,000, the utility would refund any amount by which its actual revenues exceeded $1.05 billion. Thus, the additional customer accounts contribute $50 million to fixed cost recovery.
2. "Revenue requirement true-up" means that the decoupling mechanism simply compares the actual foxed cost revenues to the amount authorized for fixed cost recovery in the utility's last rate case, even if that was several years prior. Thus, the utility may face declining income as inflation and other factors increase fixed costs. The sub-category of these that are "with attrition" indicate the utilities for whom that authorized revenue requirement changes from year to year according some formula, generally an inflation index less an assumed amount of productivity improvement. This may be part of the decoupling mechanism, done as a means of calculating the comparator for the actual revenues collected, or external to the decoupling mechanism and causing its own rate adjustment.
3. "Weather" refers to revenue variances attributable to actual weather differing from the weather conditions assumed in the ratemaking process. If a decoupling mechanism uses actual revenues that are not weather-adjusted, that means that revenue variances attributable to weather will affect the size of the customer refund or surcharge.
4. "Limit on adjustments or a dead-band" refers to features in a given decoupling mechanism that limit the size of any (or a cumulative set of) customer refund or surcharge, or in the case of a dead-band, exclude a certain amount of the variance (again, refund or surcharge) before calculating the positive or negative decoupling rate increment. For most of the mechanisms that have a limit on the size of decoupling adjustments, any amount not refunded or surcharged carries over to the next decoupling period. That is not always the case, however.
5. "Per class calculation and spread of adjustments" means that the mechanism determines the difference between the authorized fixed cost revenue and the actual revenue on a per class or per rate schedule basis and refunds or surcharges

the resulting amount only to that rate schedule or customer class. Included in the count are utilities for which the decoupling mechanism applies only to one customer class or rate schedule. Only eight utilities have mechanisms that do not do this.

6. "Earnings test" refers to a limitation on decoupling surcharges by which the utility may not recover revenue differences calculated by the mechanism to the extent that recovery would increase its earnings over a specified return on common equity, whether the last authorized or another amount.

The next several years will significantly increase experience with decoupling, both for those utilities for whom decoupling is of relatively long-standing and for those that have just begun their implementation. It would be worthwhile to update this review at some point to determine whether these conclusions hold true with additional experience, particularly among the electric utilities for whom data is presently scarcer than for gas utilities.

Methodology

Generally, it was possible to find a tariff stating the decoupling adjustment, either in cents or dollars per therm, or cents per kWh. This was not the case only for the California utilities, whose decoupling does not occur under a separate tariff but as part of a much larger annual filing. Those utilities very helpfully provided the information needed for this report. Amounts in ( ) are rebates to customers; other amounts are surcharges. In general, amounts are rounded to two to three digits.

It was much more difficult to find a total retail rate for the rate classes covered by the decoupling mechanism and, thus, to calculate the size of the decoupling adjustment as a percentage of the total rate. This was particularly problematic where the adjustments were for prior years or the commodity portion of the rate changed frequently, as is common for gas utilities and restructured electric utilities. In many cases, this report uses average annual (or monthly for 2009) retail gas and electric price information for the appropriate state found on the EIA website. The goal was to provide context for the decoupling adjustment, not state precise percentages and the EIA data served well for the purpose.

For a couple of reasons, it is impossible to determine from the sources available what changes in rates actually occurred when. First and foremost, whether a given decoupling adjustment caused a rate increase or decrease depends on what was in rates before for decoupling. For example, if a decoupling adjustment produced a refund one year and a somewhat smaller refund the second year, the rate change customers would experience would be a small increase, as the prior credit expired and was not fully replaced by the current credit. The reverse can also happen: the expiration of a decoupling surcharge will produce a rate decrease unless the subsequent decoupling adjustment is the same or a larger surcharge. Second, many utilities combine one or more rate changes at one time. Changes in commodity costs or balancing accounts or other tariff riders along with the decoupling adjustment are common and could easily offset or mask the decoupling adjustment. For two utilities, such offsetting was the deliberate design.

STATE/UTILITY INFORMATION

Arkansas

Arkansas Oklahoma (gas)
Case/Order No.: 07-026-U, Order No. 7 (11/20/07)
http://www.apscservices.info/efilings/docket_search_results.asp
Type of decoupling: Reconciles actual weather-adjusted revenues to rate case revenues for the residential and small business classes. No refund for over-recovery; only surcharge for under-recovery (net across all schedules). Deficiencies recovered within each class where a deficiency occurs. There is a separate weather adjustment.
Decoupling tariff: Billing Determinant Adjustment
http://www.apscservices.info/tariffs/112_gas_1.PDF
The tariff expires August 31, 2011; the utility must re-file to continue decoupling.
Energy efficiency cost recovery: incremental costs per the Energy Efficiency cost recovery tariff (adopted in Docket 07-077-TF); forecast and true-up procedure filed by April, for June adjustments.
History of Adjustments: The October 2008 filing was for no adjustment because sales were above those used in ratemaking.

Arkansas Western (gas)
Case/Order No.: 06-124-U, Order No. 6 (7/13/07)
http://www.apscservices.info/efilings/docket_search_results.asp
Type of decoupling: Reconciles actual weather-adjusted revenues to rate case revenues for the residential and small business classes only. No refund for over-recovery; only surcharge for under-recovery (net across all schedules). Deficiencies recovered within each class where a deficiency occurs. There is a separate weather adjustment.
Decoupling tariff: Billing Determinant Adjustment Tariff, Rider No. 3.6
http://www.apscservices.info/tariffs/145_gas_1.PDF
The tariff expires July 31, 2010; the utility must re-file to continue decoupling.
Energy efficiency cost recovery: Incremental costs per the Energy Efficiency cost recovery tariff (for programs approved in Docket 07-078-TF); forecast and true-up procedure; April filings for January 1 adjustment.
History of Adjustments: The October 2008 filing was for no adjustment because sales were above those used in ratemaking.

CenterPoint Energy Resources (gas)
Case/Order No.: 06-161-U; Order No. 6 (10/25/07)
http://www.apscservices.info/efilings/docket_search_results.asp
Type of decoupling: Reconciles actual weather-adjusted revenues to rate case revenues for the residential and small business classes only. No refund for over-recovery; only surcharge for under-recovery (net across all schedules). Deficiencies recovered within each class where a deficiency occurs. There is a separate weather adjustment.
Decoupling tariff: Billing Determinant Adjustment Tariff, Rider No. 6
http://www.apscservices.info/tariffs/64_gas_2.PDF

Tariff expires on December 31, 2010; the utility must re-file to continue.
Energy efficiency cost recovery: Incremental costs per the Energy Efficiency cost recovery tariff (for programs approved in Docket 07-081-TF); forecast and true-up procedure; April filings for January adjustment.
History of Adjustments: The first filing under the tariff was March 31, 2009. CenterPoint made no adjustment because sales slightly exceeded revenue requirement sales.

California

California first adopted decoupling, through the Supply Adjustment Mechanism (SAM), for gas utilities in 1978 in Decision 88835. By 1982, similar mechanisms were in place for the three electric IOUs. The ratemaking construct worked by establishing a revenue requirement for each utility annually and then reconciling actual revenues to the allowed revenues. Information on the electric decoupling adjustments during this first period is available for most years from 1983 through 1993 through an analysis done by Lawrence Berkeley Labs in 1994.[4] The authors compared the rate adjustments that took place with those that would have occurred without the decoupling amounts. The following were the decoupling-only rate adjustments identified:

Year	PG&E (% of total rates)	SCE (% of total rates)	SDG&E[5] (% of total rates)
1983	2.3	Not available	1.2
1984	(3.4)	(0.5)	1.0
1985	(4.8)	(2.1)	(6.8)
1986	1.9	2.1	1.8
1987	2.1	(1.0)	11.0
1988	5.0	(1.5)	(12.0)
1989	(4.3)	2.4	0.7
1990	(5.4)	(2.1)	4.8
1991	3.9	3.5	(1.8)
1992	3.4	(0.6)	1.4
1993	0.0	(1.9)	Not available

As the gas industry restructured, gas utilities began to serve large (non-core) customers under a straight fixed-variable rate design, which continues through today. For core customers (commonly residential and smaller commercial), decoupling continued.

The CPUC largely stopped the electric decoupling mechanisms in 1996, with the advent of electric restructuring. It is unclear whether the last reconciliation adjustment was 1995

[4] The Theory and Practice of Decoupling, Joeseph Eto et al., Lawrence Berkeley Laboratory, January 1994 Website: http://eetd.lbl.gov/EA/emp/reports/34555.pdf
[5] The article providing these historical decoupling adjustments does not explain the outlying double-digit increase and decrease for SDG&E. Given that the two are in consecutive years, one might surmise that a load forecasting or mathematical error caused the decoupling increase in the one year only to correct it and reverse the amount in the following year.

or 1996. In 2001, however, the Legislature passed Public Utilities Code section 739.10, which required that the CPUC resume decoupling.

739.10. The commission shall ensure that errors in estimates of demand elasticity or sales do not result in material over or under-collections of the electrical corporations.

In individual rate cases following this, the CPUC approved resumption of electric.[6]

Pacific Gas and Electric (electric)
Case/Order Nos.: A.02-11-017 et al.
http://docs.cpuc.ca.gov/PUBLISHED/FINAL_DECISION/37086.htm
The first adjustment under the various mechanisms occurred at the end of 2004 to be effective during 2005.
Type of decoupling: Reconciles actual, non-weather-adjusted revenues to approved revenue requirement. An attrition adjustment increases revenue requirement in non-rate case years. PG&E has three specific accounts that combine to accomplish decoupling: the Distribution Revenue Adjustment Mechanism, the Nuclear Decommissioning Revenue Adjustment Mechanism, and the Utility Generation Balancing Account.
Decoupling tariff: No specific tariff.
Filing Schedule: Adjustments occur through the Annual Electric True-Up filing.
Energy efficiency cost recovery: Yes
History of Adjustments

Year of Adjustment[7]	Revenue Rqmt ($ millions)	Decoupling Adjustment ($ millions)	Decoupling as % of Total Revenue[8]
2005	9,715	99.41	1.0
2006	9,875	24.64	0.25
2007	10,371	148.9	1.4
2008	10,609	11.4	0.11
2009	11,169	103.55	0.9

Pacific Gas and Electric (gas)
Case/Order Nos.: A.02-11-017 et al.
http://docs.cpuc.ca.gov/PUBLISHED/FINAL_DECISION/37086.htm
The first adjustment under the various mechanisms occurred at the end of 2004 to be effective during 2005.
Type of decoupling: Reconciles actual, non-weather-adjusted revenues to approved revenue requirement. An attrition adjustment increases revenue requirement in non-rate case years.
Decoupling tariff: No specific tariff; adjustment occurs in Annual True-Up filing
Filing Schedule: Filings occur in December for January 1 effective dates
Energy efficiency cost recovery: Yes

[6] Some amount of decoupling, for some of the utilities, may have occurred between adoption of restructuring and the adoption of section 739.10. It is unclear.
[7] The adjustment is collected in the year following the year that the revenue variance occurred.
[8] Because the decoupling adjustments occur along with other adjustments, it is not possible to determine specific adjustments (dollars or percentages) by rate schedule. It is possible to identify the total decoupling adjustment as a percentage of total revenues for the year to which the adjustment relates.

History of Adjustments

Year of Adjustment	Revenue Rqmt ($ millions)	Decoupling Adjustment ($ millions)	Decoupling as a % of Delivery Revenue[9]
2006	982.8	37.95	3.9
2007	1,026	46.77	4.6
2008	1,095	11.26	1
2009	1,091	50.86	4.7

Southern California Edison (electric)
Case/Order Nos.: A.93-120-29; Decision 02-04-055. The first adjustment under the various mechanisms occurred at the end of 2004 to be effective during 2005.
Type of decoupling: Reconciles actual, non-weather-adjusted revenues to approved revenue requirement. An attrition adjustment increases revenue requirement in non-rate case years.
Decoupling tariff: No specific tariff.
Filing Schedule: Adjustments occur through the Annual Electric True-Up filing.
Energy efficiency cost recovery: Yes
History of Adjustments

Year	Annual Change in Rates for Decoupling[10] (%)
2004	(2.1)
2005	(2.1)
2006	0.1
2007	(1.0)
2008	2.2

San Diego Gas & Electric (electric)
Case/Order No.: Case/Order No.: A.02-12-027
http://docs.cpuc.ca.gov/PUBLISHED/FINAL_DECISION/44820.htm
Type of decoupling: Reconciles actual, non-weather-adjusted revenues to approved revenue requirement. An attrition adjustment increases revenue requirement in non-rate case years.
Decoupling tariff: No separate tariff

[9] The percentages would be much smaller with commodity reflected in the total as well. Because PG&E could not provide the per-therm adjustment related to decoupling, it was not possible to calculate the decoupling as a percentage of the total rate to customers, even using EIA data.
[10] Rate changes reflect the difference between the rate change without the base revenue requirement balancing account (BRRBA) and the rate change with the BRRBA. Because the decoupling adjustments occur along with other adjustments, it is not possible to determine specific adjustments (dollars or percentages) by rate schedule. It is possible to identify the total decoupling adjustment as a percentage of total revenues for the year to which the adjustment relates.

Filing Schedule: Adjustments occur in annual filings that combine many adjustments, including both revenue and cost reconciliations.
Energy efficiency cost recovery: Yes
History of Adjustments[11]

Year	Rate (¢/kWh)	Decoupling Rate Change (¢/kWh)	Decoupling change compared to Rate (%)
2005	13.773	(0.055)	(0.40)
2006	13.935	(0.210)	(1.5)
2007	13.997	(0.051)	(0.36)
2008	13.606	(0.044	0.32
2009	16.726	0.128	0.76

SoCal Gas/SDG&E (gas)
Case/Order No.: A.02-12-027; D.05-03-023
http://docs.cpuc.ca.gov/PUBLISHED/FINAL_DECISION/44820.htm
Type of decoupling: Reconciles actual, non-weather-adjusted revenues to approved revenue requirement. An attrition adjustment increases revenue requirement in non-rate case years.
Decoupling tariff: No separate tariff
Filing Schedule: Adjustments occur in annual filings that combine many adjustments, including both revenue and cost reconciliations
Energy efficiency cost recovery: Yes
History of Adjustments[12]

Year/ Core/Non-Core	Rate (¢/therm)	Decoupling Rate Change (¢/therm)	Decoupling Change compared to Rate (%)
2006			
Core	48.348	0.012	0.02
Non-Core	5.36	0	0
2007			
Core	50.196	0.024	0.05
Non-Core	4.852	(0.001)	(0.01)
2008			
Core	51.526	0.001	0
Non-Core	3.576	(0.001)	(0.04)
2009			
Core	55.052	0.003	0.01
Non-Core	2.954	0.002	0.07

[11] The numbers are estimates only and reflect the best efforts of SDG&E to isolate the decoupling elements. Contact Lisa Davidson at 858-636-3928 for information or updates.
[12] The numbers below are estimates only and reflect the company's best efforts to isolate the decoupling elements. Rates shown are for delivery services only.

Southwest Gas Corporation (gas)
Case/Order No.: A.02-02-012, Order 04-03-034
http://docs.cpuc.ca.gov/Published/Final_decision/35920.htm
Type of decoupling: Reconciles actual, non-weather-adjusted revenues to approved revenue requirement. An attrition adjustment increases revenue requirement in non-rate case years.
Decoupling tariff: Core Fixed Cost Adjustment Mechanism (line item in cost of gas)
http://www.swgas.com/tariffs/catariff/rates/historic/2009/06-07-2009/rates-nocal.pdf and
http://www.swgas.com/tariffs/catariff/cover/ca_gas_tariff.pdf (see Sheet 6739-G)
Filing Schedule: Changes occur every January 1
Energy efficiency cost recovery: Yes
History of Adjustments

Year	Average Commercial Rate[13] ($/therm)	Northern Territory Decoupling Adj ($/therm)	% of Retail Rate (est[14])	Southern Territory Decoupling Adj ($/therm)	% of Retail Rate[15]
2005	1.07	0.004	0.4	0.05	4.7
2006	1.04	0	0	0.05	4.8
2007	1.02	(0.0006)	<(.01)	0.004	0.4
2008	1.17	(0.016)	(1.4)	0.010	0.9
2009	0.94	(0.051)	(5)	0.013	1.4

Colorado

Colorado has adopted decoupling only for one utility – gas – and then only for a three-year experiment. Recent legislation authorizes the Commission to ensure cost recovery for both electric and natural gas energy efficiency programs but does not address decoupling. See §40-3.2-103 and 104.

Public Service of Colorado (gas)
Case/Order No.: 06S-656G; Order No. C07-0568
http://www.dora.state.co.us/puc/DocketsDecisions/HighprofileDockets/06S-656G.htm

[13] Source: EIA data, annual through 2008 and January 2009. For simplicity, this assumes translates MCF into therms without the small additional amount of btu associated with a therm.
[14] This is an estimate only, using EIA average California commercial retail prices for each of the years above. Although the core class includes both residential and commercial, the percentage estimate uses the lower commercial number to be conservative regarding the size of the adjustment as a percentage of customer rates.
[15] This is an estimate only, using EIA average California commercial retail prices for each of the years above. Although the core class includes both residential and commercial, the percentage estimate uses the lower commercial number to be conservative regarding the size of the adjustment as a percentage of customer rates.

Type of decoupling: Reconciliation of residential use-per-customer times ratemaking margin to actual, weather-normalized use-per-customer times ratemaking margin; utility allowed to recover only differences greater than or equal to 1.3% decline in use per customer (cumulates every year of mechanism); increases in use-per-customer accrue to offset losses in use-per-customer in prior or future years.
Decoupling Tariff: Partial Decoupling Rate Adjustment, Sheet 51
http://www.xcelenergy.com/SiteCollectionDocuments/docs/psco_gas_entire_tariff.pdf
The tariff expires October 1, 2011; the utility must re-file to continue decoupling. Filing Schedule: Adjusts every year on October 1
Energy efficiency cost recovery: Cost recovery reconciled to actual costs; semi-annual filing for July 1 and January 1 rate changes
History of adjustments

September 2008 filing for margin differences July 2007 through June 2008: $0

Connecticut

2007 Connecticut legislation requires that the Commission adopt decoupling mechanisms for the states' electric and natural gas utilities. CT Public Act No. 07-242
http://www.cga.ct.gov/2007/ACT/PA/2007PA-00242-R00HB-07432-PA.htm

United Illuminating (electric)
Case/Order No.: 08-07-04 (February 2009 and June 2009)
http://www.dpuc.state.ct.us/FINALDEC.NSF/0d1e102026cb64d98525644800691cfe/f4217b3542e2b08b852575530075d08c?OpenDocument and
http://www.dpuc.state.ct.us/FINALDEC.NSF/2b40c6ef76b67c438525644800692943/3b76f3e31c22cb19852575cb005cea73?OpenDocument
Type of decoupling: Reconciliation of actual, non-weather adjusted revenues to ratemaking revenues. Refunds or surcharges allocated to all classes based on revenue.
Decoupling Tariff: United Illuminating has not yet filed a tariff to implement the Commission's approval of its decoupling mechanism because it was awaiting the results of a request for reconsideration. A tariff will likely be filed shortly. Extension beyond 2010 requires specific Commission approval.
Filing Schedule: Within 14 months after new rates effective
Energy efficiency cost recovery: Yes
History of Adjustments

There will not be any adjustments under this order for approximately 14 months.

Idaho

Idaho Power Company (electric)
Case/Order No.: IPC-E-04-15; Order No. 30267
http://www.puc.idaho.gov/search/search.htm (Search under order number).
Type of decoupling: For residential and small commercial customers, the mechanism reconciles actual number of customers to ratemaking number of customers times a set fixed cost per customer and weather-adjusted sales per customer to ratemaking sales per customer for a set fixed cost per kWh amount. Adjustments are capped at 3% over the

previous year, with carry-over to subsequent years. Although the mechanism specifies calculating and refunding/charging any adjustment on a per class basis, the Commission departed from this in the first two adjustments because of concern regarding the lack of current cost of service studies to support the underlying cost allocations. This is a three-year pilot program, expiring May 31, 2010.
Decoupling tariff: Schedule 54
http://www.puc.state.id.us/tariff/approved/Electric/Idaho%20Power%20Company.pdf
Filing Schedule: Adjustments occur each June 1 (filed March 15), with adjustments based on results from the prior calendar year.
Energy efficiency cost recovery: Incremental costs per the Energy Efficiency cost recovery tariff (adopted in Docket 07-077-TF); forecast and reconciliation procedure filed by April for June adjustments.
History of Adjustments

Year	Residential Decoupling ($ million)	Adjustment[16] (¢/kWh)	Rate change (%)	Small Commercial Decoupling ($ million)	Adjustment (¢/kWh)	Rate change (%)
2008	(3.6)	(0.0457)	(0.71)[17]	1.2	(0.0457)	(0.71)
2009[18]	1.3	0.0529	0.82	1.4	0.0529	0.82

Kansas

In 2008, the Commission issued an order addressing generally cost recovery and incentives associated with utility energy efficiency programs. Docket No. 08-GIMX-441-GIV (November 14, 2008)
http://www.kcc.state.ks.us/scan/200811/20081114142730.pdf. The Commission endorsed the concept of using a tariff rider to recover program costs on a timely basis, with pre-filing of programs and budgets to provide utilities assurance of concurrence in their plans. In the order, the Commission also determined that decoupling was the best method of addressing the throughput incentive that utilities otherwise face, rejecting both a straight fixed-variable rate design and lost revenue recovery as reasonable alternatives. It invited utilities to file decoupling proposals in connection with their energy efficiency programs.

Illinois

North Shore Gas (gas)

[16] The Commission ordered that the decoupling adjustments be summed and the result designed into an even adjustment across the two customer classes. This was, in part, because Idaho Power lacked a recent cost of service study suitable to allocate fixed costs between the two classes.
[17] This is an estimate using the 2009 retail rate implied by the filing of the 2009 adjustment and the 2008 adjustment.
[18] Filed March 15, but not yet approved.

Case/Order No.: 07-0241/07-0242 (Cons)
http://www.icc.illinois.gov/docket/files.aspx?no=07-0241&docId=119858
Type of decoupling: Reconciles actual, non-weather-adjusted margin revenue per customer to ratemaking margin per customer, on a per-class basis.
Decoupling tariff: Volume Balancing Adjustment (VBA), sheets 60-64
http://www.northshoregasdelivery.com/news/tariffs/vba.pdf
This is a four-year pilot only; to continue, the utility must make a general rate filing in which the Commission extends the program.
Filing Schedule: Monthly adjustments began March 2008. The utility will make a reconciliation filing every February. The first filing was in February 2009 for the ten months of 2008 included in the mechanism.
Energy efficiency cost recovery: Rider Energy Efficiency Program (EEP); program period runs July 1 to June 30 each year.
History of adjustments[19]

North Shore Gas Service Classification	True-up: rate case to actual margin ($)	True-up: percentage of margin (%)	True-up: percentage of total revenues (%)[20]
Residential Sales	(547,804.42)	(3.3)	(0.46)
Residential Transportation	(5,101.34)	(1.3)	(0.1)
Comm/Ind Sales	(89,053.00)	(3)	(0.33)
Comm/Ind Transportation	(327,781.95)	(0.5)	(0.5)

Peoples Gas and Coke (gas)
Case/Order No.: 07-0241/07-0242 (Cons)
http://www.icc.illinois.gov/docket/files.aspx?no=07-0241&docId=119858
Type of decoupling: Reconciles actual, non-weather-adjusted margin revenue per customer to ratemaking margin per customer, on a per class basis.
Decoupling tariff: Volume Balancing Adjustment (VBA), Sheets 61-65
http://www.peoplesgasdelivery.com/news/tariffs/vba.pdf
This is a four-year pilot only; to continue, the utility must make a general rate filing in which the Commission extends the program.
Filing Schedule: Monthly adjustments began March 2008. The utility will make a reconciliation filing every February. The first filing was in February 2009 for the ten months of 2008 included in the mechanism.
Energy efficiency cost recovery: Rider Energy Efficiency Program (EEP); program period runs July 1 to June 30 each year.
History of adjustments[21]

[19] Prepared from the annual reconciliation filing.
[20] Commodity rates change frequently. The percentage was estimated using average city gate gas cost for Illinois per EIA data, annual 2008, $8.48/Mcf.
[21] Prepared from the annual reconciliation filing.

Peoples Gas Service Classification	True-up: rate case to actual margin ($)	True-up: percentage of margin (%)	True-up: percentage of total revenues (est.)[22] (%)
Residential Sales	(2,035,714.64)	(2)	(0.43)
Residential Transportation	(53,882.01)	(2.4)	(0.15)
Comm/Ind Sales	(431,457.89)	(1)	(0.19)
Comm/Ind Transportation	(2,217,245.22)	(6.9)	(0.73)

Indiana

Vectren Indiana Gas (gas)
Case/Order No.: 42943 (December 2006)
https://myweb.in.gov/IURC/eds/Modules/Ecms/Cases/Docketed_Cases/ViewDocument.aspx?DocID=0900b631800befe7
Type of decoupling: Reconciles actual, non-weather-adjusted margin revenues per customer to ratemaking margin revenues per customer, with an adjustment for customer additions and reductions; only 85% of amount (positive or negative) included in rates; earnings capped at allowed return on common equity, with earnings shortfalls from prior periods allowed to offset potential returns to customers. The mechanism operates on a per class basis. The utility also has a separate weather adjustment tariff that applies only during the seven winter months.
Decoupling tariff: Appendix I, Energy Efficiency Rider, Sheet 38
https://www.vectrenenergy.com/cms/assets/pdfs/indiana_gas_tariff.pdf
Energy efficiency cost recovery: Yes, in the same tariff
History of adjustments

Rate Schedule/Year	Decoupling Adjustment ($/therm)	Adjustment as a % of Margin	Adjustment as a % of Total Rate
2008			
Residential (210)	0.017	6.4	1.5
General (220/225)	0.0034	2.0	0.3
2009			
Residential (210)	0.00364	1.4	0.4
General (220/225)	(0.00762)	4.4	(0.86)

Vectren Southern Indiana Gas (gas)

[22] Commodity rates change frequently. The percentage was estimated using average city gate gas cost for Illinois per EIA data, annual 2008, $8.48/Mcf.

Case/Order No.: 42943 (December 2006)
https://myweb.in.gov/IURC/eds/Modules/Ecms/Cases/Docketed_Cases/ViewDocument.aspx?DocID=0900b631800befe7
Type of decoupling: Reconciles actual, non-weather-adjusted margin revenues per customer to ratemaking margin revenues per customer, with an adjustment for customer additions and reductions; only 85% of amount (positive or negative) included in rates; earnings capped at allowed return on common equity, with earnings shortfalls from prior periods allowed to offset potential returns to customers. The mechanism operates on a per class basis. The utility also has a separate weather adjustment tariff that applies only during the seven winter months.
Decoupling tariff: Appendix I, Energy Efficiency Rider, Sheet 38
https://www.vectrenenergy.com/cms/assets/pdfs/south_services_gas_tariff.pdf
Energy efficiency cost recovery: Yes, in the same tariff
History of adjustments

Rate Schedule/Year	Decoupling Adjustment ($/therm)	Adjustment as a % of Margin	Adjustment as a % of Total Rate
2008			
Residential (110)	0.0085	4.7	0.8
General (120/125)	0.0035	2.9	0.3
2009			
Residential (110)	0.00152	0.8	0.2
General (120/125)	(0.00469)	(4)	(0.6)

Citizen's Gas & Coke (gas)
Case/Order No.: 42767 (April 2007)
https://myweb.in.gov/IURC/eds/Modules/Ecms/Cases/Docketed_Cases/ViewDocument.aspx?DocID=0900b631800dd673
Type of decoupling: Reconciles actual, non-weather-adjusted margin revenues per customer to ratemaking margin revenues per customer, with an adjustment for customer additions and reductions. The mechanism operates on a per class basis. The utility also has a separate weather adjustment tariff that applies only during the seven winter months.
Decoupling tariff: Rider E, page 505
http://www.citizensgas.com/pdf/NGRatesRidersTC/RiderE.pdf
Energy efficiency cost recovery: Yes, through Rider E
History of adjustments

Rate Schedule/Year	Decoupling Adjustment ($/therm)	Adjustment as a % of Margin	Adjustment as a % of Total Rate
2008			
Res Non-Heat	0.002	0.45	0.16
Res Heat	(0.0002)	(0.067)	(0.02)
General Non-Heat	(0.0006)	(0.5)	(0.006)
General Heat	0	0	0

2009			
Res Non-Heat	0.0133	3	1.2
Res Heat	0.0223	7.3	2.2
General Non-Heat	0.0157	12.86	1.9
General Heat	0.0212	12.9	2.4

Maryland

Maryland has both gas and electric decoupling in place; the former began in the early 2000s, and the latter just within the last few years. All of the mechanisms make monthly adjustments. The amounts below are averages of the monthly adjustments for the periods shown. For several of the utilities, the largest and smallest adjustments within a given year are also shown.

Baltimore Gas & Electric (electric)
Case/Order No.: [Unable to locate]
Type of Decoupling: Reconciles actual, non-weather-adjusted revenue to ratemaking revenue, adjusted for net customers added, on distribution only, by rate schedule. Maximum change in rates per month is 10%, with any adjustment amount in excess of that carried over to future periods.
Decoupling Tariff: Monthly Rate Adjustment, Rider 25
http://www.bge.com/portal/site/bge/menuitem.b0ab2663e7ca6787047eb471016176a0/
Filing Schedule: Monthly
Energy efficiency cost recovery: Yes
History of Adjustments

Period	Res. Dec. Adj (¢/kWh)	Dec. Adj % of Retail Rate[23]	Small Comm. Dec. Adj (¢/kWh)	Dec. Adj % of Retail Rate	Gen'l Comm. Dec. Adj (¢/kWh)	Dec. Adj % of Retail Rate
2008[24]						
Largest Adj	0.445		0.215		0.2303	
Smallest Adj	(0.066)		(0.215)		0.1456	
Average Adj	0.136	1.1	0.025	0.22	0.21	2.1
2009						
Largest Adj	0.237		0.119		0.23	
Smallest Adj	(0.237)		(0.215)		(0.215)	
Average Adj	(0.069)	(0.5)	(0.048)	(0.4)	(0.043)	(0.4)

Delmarva (electric)

[23] EIA data on Maryland retail rates for the respective years used as a proxy to determine percentages.
[24] The mechanism was effective January 2008, with the first adjustment occurring in March 2008 based on January variances. The filing for the November 2008 adjustment was missing from the Maryland Commission website.

Case/Order No.: Case Jacket 9093; Order 81518, July 2007
http://webapp.psc.state.md.us/Intranet/Casenum/CaseAction_new.cfm?RequestTimeout=500
Type of decoupling: Reconciles actual, non-weather-adjusted revenue to ratemaking revenue, adjusted for net customers added, on distribution only, by rate schedule. Maximum change in rates per month is 10%, with any adjustment amount in excess of that carried over to future periods. Adjusts monthly.
Decoupling Tariff: Bill Stabilization Adjustment Rider, Leaf 102
http://www.delmarva.com/home/choice/md/tariffs/
Energy efficiency cost recovery: Yes, Demand-Side Management Surcharge Rider, Leaf 132
History of adjustments

Period/Rate	Average Decoupling Adjustment[25] (¢/kWh)	Estimated Total Rate[26] (¢/kWh)	Decoupling as % of Rate[27]
11/07 – 10/08			
Residential	0.16	11.09	1.4
General	0.21	11.80	1.8
11/08 – 4/09			
Residential	0.16	10.69	1.5
General	0.29	11.40	2.5

PEPCO (electric)
Case/Order No.: Case Jacket 9092, Order 81517, July 2007
http://webapp.psc.state.md.us/Intranet/Casenum/CaseAction_new.cfm?RequestTimeout=500
Type of decoupling: Reconciles actual, non-weather-adjusted revenue to ratemaking revenue, adjusted for net customers added, on distribution only, by rate schedule. Maximum change in rates per month is 10%, with any adjustment amount in excess of that carried over to future periods. Adjusts monthly.
Decoupling tariff: Bill Stabilization Adjustment Rider, page 47
http://www.pepco.com/_res/documents/md_tariff.pdf
Energy efficiency cost recovery: Yes, Demand-Side Management Surcharge Rider, page 48
History of Adjustments

[25] PEPCO makes a monthly adjustment. The numbers shown are the average across the periods identified. For the year 11/07 to 10/08, there were 14 downward adjustments across the three classes and 22 upward adjustments. For the partial period 11/08 to 2/09, there were 2 downward adjustments and 10 upward.
[26] For residential, this is the average (summer/winter) standard offer rate for the decoupling periods. For general, the rate is estimated from the price to compare on PEPCO's website. For large industrial, the rate is from EIA 2006 price data for Maryland.
[27] The percentage shown is only as of total rate for residential and general service. The percentage is of delivery costs only for large industrial; with added commodity, the percentage change would be much lower.

Period/Rate	Average Decoupling Adjustment[28] (¢/kWh)	Estimated Total Rate[29] (¢/kWh)	Decoupling as % of Rate
11/07 – 10/08			
Residential	0.06	10.75	0.56
General	0.08	12.74	0.63
Large	0.013	8.14	0.16
11/08 – 2/09			
Residential	0.25	10.75	2.3
General	0.14	12.74	1.1
Large	0.02	8.14	0.25

Baltimore Gas & Electric (gas)
Case/Order No.: Case 9036; Order 80460
http://webapp.psc.state.md.us/Intranet/Casenum/submit_new.cfm?DirPath=C:\Casenum\9000-9099\9036\Item_116\&CaseN=9036\Item_116
Type of decoupling: Reconciles actual, non-weather-adjusted revenue to ratemaking revenue, adjusted for net customers added, on distribution only, by rate schedule. Maximum change in rates per month is 10%, with any adjustment amount in excess of that carried over to future periods. Adjusts monthly.
Decoupling tariff: Monthly Rate Adjustment, Rider 8
http://www.bge.com/portal/site/bge/menuitem.d7305449a99570c7047eb471016176a0/
Energy efficiency cost recovery: Yes. Gas Efficiency Charge, Rider 1
History of Adjustments

Period	Residential Decoupling Adjustment ($/therm)	Decoupling Adjustment % of Retail Rate[30]	Commercial Decoupling Adjustment ($/therm)	Decoupling Adjustment % of Retail Rate
2006[31]				
Largest Adj	0.05		0.05	
Smallest Adj	(0.01)		(0.05)	
Average Adj	0.0316	1.9	(0.005)	(0.4)
2007[32]				

[28] PEPCO makes a monthly adjustment. The numbers shown are the average across the periods identified. For the year 11/07 to 10/08, there were 14 downward adjustments across the three classes and 22 upward adjustments. For he partial period 11/08 to 2/09, there were 2 downward adjustments and 10 upward.
[29] For residential, this is the average (summer/winter) standard offer rate for the decoupling periods. For general, the rate is estimated from the price to compare on PEPCO's website. For large industrial, the rate is from EIA 2006 price data for Maryland. It is not clear if the standard offer rate is with or without distribution charges built in. This analysis assumes these are included. If they are not, the decoupling adjustment as a percentage of the total rate would be even lower.
[30] EIA data for the respective years used as a proxy for the retail rate.
[31] The first decoupling adjustment appears to have occurred in July 2006. The filing for the 09/06 adjustment was missing from the Maryland Commission website.

Largest Adj	0.0397		0.0159	
Smallest Adj	(0.05)		(0.05)	
Average Adj	(0.0323)	(2.1)	(0.043)	(3.5)
2008[33]				
Largest Adj	0.073		0.05	
Smallest Adj	(0.05)		(0.05)	
Average Adj	0.02	1.2	(0.0223)	(1.7)
2009				
Largest Adj	0.008		0.0212	
Smallest Adj	(0.0272)		(0.05)	
Average Adj	(0.014)	<(0.1)	(0.01)	(0.8)

Washington Gas Light (gas)
Case/Order No.: Case 8990; Order No. 80130
http://webapp.psc.state.md.us/Intranet/Casenum/CaseAction_new.cfm?RequestTimeout=500
Type of decoupling: Reconciles actual, non-weather-adjusted revenue to ratemaking revenue, adjusted for net customers added, on distribution only, by rate schedule. Maximum change in rates per month is 5¢, with any adjustment amount in excess of that carried over to future periods. Adjusts monthly.
Decoupling tariff: Revenue Normalization Adjustment, General Service Provisions No. 30 http://www.washgas.com/FileUpload/File/Tariffs/MD/md9899.pdf
Energy efficiency cost recovery: Yes. Demand-side Management Surcharge Adjustment, General Service Provisions No. 22
History of Adjustments:

Period	Residential Decoupling $/therm	Decoupling Adjustment % of Retail[34]	Commercial Decoupling $/therm	Decoupling Adjustment % of Retail
December 2005	0.0258	1.7	0.0139	1.2
2006				
Largest Adj	0.05		0.045	
Smallest Adj	0.0146		(0.05)	
Average Adj	0.0415	2.5	(0.02)	(1.5)
2007				
Largest Adj	0.0323		0.0499	
Smallest Adj	(0.05)		(0.05)	
Average Adj	(0.0085)	(0.56)	(0.027)	(2.2)
2008				
Largest Adj	0.05		0.05	
Smallest Adj	(0.05)		(0.05)	

[32] Filings for adjustments for January, March and April were missing from the Maryland Commission website.
[33] Filings for adjustments in April, October and November were mission from the Maryland Commission website.
[34] Retail prices based on EIA data for Maryland for respective years.

Average Adj 2009[35]	(0.0013)	(0.08)	(0.005)	(0.39)
Largest Adj	0.0344		0.0245	
Smallest Adj	(0.05)		(0.0386)	
Average Adj	(0.018)	(1.5)	(0.022)	(2.0)

Massachusetts

Massachusetts has announced a regulatory policy in favor of decoupling for all of its gas and electric utilities. D.P.U 07-50-A (July 2008) http://www.mass.gov/Eoeea/docs/dpu/electric/07-50/71608dpuord.pdf. None of the utilities have mechanisms in place yet.

Minnesota

In 2007, the Minnesota legislature enacted Section 216B.2412, https://www.revisor.leg.state.mn.us/statutes/?id=216B.2412 in which it defined an alternative approach to utility regulation, *decoupling*, and directed the Public Utilities Commission to "establish criteria and standards" by which it could adopt decoupling for the state's rate-regulated utilities. In addition, the legislation authorized the PUC to allow one or more utilities "to participate in a pilot program to assess the merits of a rate-decoupling strategy to promote energy efficiency and conservation," subject to the criteria and standards that the PUC will have established. To date, no utility pilots are in place.

Michigan

In 2008, Michigan passed PA 295, http://legislature.mi.gov/doc.aspx?2007-SB-0213 a comprehensive bill adopting a renewable energy portfolio standard and an energy efficiency portfolio standard for state electric and natural gas utilities. Section 89(6) states that the commission shall authorize any natural gas utility that spends a minimum of 0.5% of total natural gas retail sales revenues, including natural gas commodity costs, in a year on commission-approved energy efficiency programs to implement a symmetrical revenue decoupling true-up mechanism that adjusts for sales volumes that are above or below the projected levels that were used to determine the authorized revenue requirement. The Commission has not yet approved a decoupling mechanism under this section.

Nevada

In 2008, the Nevada Public Service Commission adopted temporary rules allowing gas utilities to propose a decoupling mechanism in a general rate case filed within one year of the approval of a set of energy efficiency programs for that utility. Docket No. 07-06046. http://pucweb1.state.nv.us/wx/DocView.aspx?DataSource=PUCN+Imaging&ParamEnc=

[35] Through May 2009.

28%3a4D605690F11E27F012E1E60C8921FD1EEDD79CFEA0229DFE8B7EB14452AF2C471C7CEAA1CF970B67CDA2AD4AE0CDFC51ED5922B5E6DD1B98989E303FB8F15D5D6D08D6153BAE4347AB1F5BA1161334F5CABA7968A9E94DA44ABC5B285CF46983F6774787FD62A42DC2948DCD8AA319003AF71485E3D7CE47887E97027141DC1825216D42A37388884DCB825AF30A075ADD824901B04B3682834A110EC55B357C08408C4D4732131396D0FDA84963BDD583915C2B541AC56C896E054A5B867D68DE185F5C7EA0D65E1F97F262BB32E527A71B4540EC51FFAA201E818A3E9D5315 The rules specify revenue per customer mechanism design, with adjustments done on a per class basis. NAC (Nevada Administrative Code) 704.953. http://pucweb1.state.nv.us/PUCN/general/pucnac.aspx

New Jersey

South Jersey Gas Company (gas)

Case/Order No.: Order No. GR05121019 (October 2006) (Link not available)
Type of decoupling: Reconciles ratemaking margin revenue per customer with actual, non-weather adjusted margin per customer, adjusted for net customers added, on a per rate schedule basis. Any revenue deficiency related to non-weather (calculated pursuant to a separate schedule – Rider D) causes is limited to the amount of offsetting revenue from sales of surplus gas. Surcharges recoveries may not occur if the utility would earn more than its allowed return on common equity but amounts excluded carry over.
Decoupling tariff: Conservation Incentive Program, Rider M, Sheet 97c
http://www.southjerseygas.com/108/tariff/Tariff060109.pdf
Energy efficiency cost recovery: Yes. Rider K, Clean Energy Program Clause (CLEP) Note that this includes lost revenue associated with programmatic savings.
History of Adjustments[36]

Class/Year	Decoupling Adjustment[37] ($/therm)	Decoupling amount as % of margin[38]	Decoupling amount as % of rate[39]
2008			
Residential	0.0443	9.8	2.8
General	0.0392	10.9	2.6
General Large Volume	(0.0037)	(1.3)	(0.3)
2009			
Residential	0.0707	15.6	4.8
General	0.0684	19	5
General Large Volume	0.0062	2.1	0.5

[36] The mechanism began in October 2006, with the first adjustment in October 2007.
[37] South Jersey does not make rate changes for the decoupling adjustments because its tariff requires that it offset the amounts against revenues it earns from the release of gas supplies.
[38] Margin based on currently published tariffs.
[39] This is an estimate using the EIA natural gas city gate price for 2008 and January 2009, respectively. These amounts are not rate changes per se. In particular, the 2009 decoupling adjustments as a percentage of the total rate is shown without regard to the prior 2008 rate change. On a cumulative basis, the increase was only approximately 1.6% for residential customers.

New Jersey Natural Gas Company (gas)
Case/Order No.: Order No. GR05121020 (October 2006) (link not available)
Type of decoupling: Reconciles ratemaking margin revenues per customer with actual, non-weather adjusted margin per customer, adjusted for net customers added, on a per rate schedule basis. Any revenue deficiency attributable to non-weather (calculated pursuant to a separate schedule – Rider D) causes is limited to the amount of offsetting revenue from sales of surplus gas. Surcharges recoveries may not occur if the utility would earn more than its allowed return on common equity but any recovery so excluded carries over.
Decoupling tariff: Conservation Incentive Program, Rider I
http://www.njng.com/regulatory/pdf/060109.pdf
Energy efficiency cost recovery: Yes. Rider E, Clean Energy Program Clause (CLEP)

History of Adjustments[40]

Class/Year	Decoupling Adjustment[41] ($/therm)	Decoupling amount as % of rate[42]
2008		
Residential	0.0261	1.7
General	0.0248	2.0
2009		
Residential	0.0378	2.5
General	0.0424	2.8

New York

Consolidated Edison (gas)
Case/Order No.: 06-G-1332; 1-102-06G1332 (September 2007)
http://documents.dps.state.ny.us/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=06-G-1332&submit=Search+for+Case%2FMatter+Number
Type of decoupling: Reconciles actual, non-weather-adjusted revenues per customer with ratemaking revenues per customer, according to several service classification groupings.
Decoupling tariff: General Information Special Adjustment No. 14, leaf 181-182; apparently in force only 10/07 through 9/08
http://www.coned.com/documents/gas_tariff/pdf/0003(09)-General_Information.pdf#page=12
Energy efficiency cost recovery: Yes
History of Adjustments (Unable to locate)

[40] The mechanism began in October 2006, with the first adjustment in October 2007.
[41] New Jersey Natural Gas does not make rate changes for the decoupling adjustments because its tariff requires that it offset the amounts against revenues it earns from the release of gas supplies.
[42] This is an estimate using the EIA natural gas city gate price for 2008 and January 2009, respectively. These amounts are not rate changes per se. 2008 EIA commercial retail gas price data for New Jersey was not available; this uses the 2007 annual.

Consolidated Edison (electric)
Case/Order No.: 07-E-0523; 1-301-07E0523 (March 25, 2008)[43]
http://documents.dps.state.ny.us/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=07-E-0523&submit=Search+for+Case%2FMatter+Number
Type of decoupling: Reconciles actual, non-weather adjusted revenues to ratemaking revenues on a per class basis. Adjusts semi-annually.
Decoupling tariff: PSC No. 9-Electricity, Leaf 168F
http://www.coned.com/documents/elec/165-168i.pdf
Energy efficiency cost recovery: Pending; decoupling specifically adopted without connection to an approved energy efficiency program
History of Adjustments[44]

Service Class	Adjustment	Percent of Delivery Charge[45]
Residential (1)	(0.1502)	(2.3)
General Commercial (2)	(0.0071)	(0.8)

National Fuel Gas Distribution (gas)
Case/Order No.: 07-G-0141, 1-102-07G0141 (December 2007)
http://documents.dps.state.ny.us/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=07-G-0141&submit=Search+for+Case%2FMatter+Number
Type of decoupling: Reconciles actual, weather-normalized margin revenue per customer with ratemaking margin per customer, adjusted for net customers added. There is a separate weather adjustment that applies for October through May only.
Decoupling tariff: Conservation Incentive Program Cost Recovery, Sheet 148.9; adjustments effective on annual basis, December through November
https://www2.dps.state.ny.us/ETS/jobs/display/download/4677590.pdf
Energy efficiency cost recovery: Yes
History of Adjustments

Service Class	Adjustment $/Mcf	Percent of Rates[46]
Residential	(0.082)	(0.77)
General Service	(0.082)	(0.87)

[43] The order included a 10 basis point ROE reduction ordered to account for the effect of the decoupling mechanism on the utility's risk.
[44] The decoupling mechanism applies to 10 schedules in total. Many of those contain demand charges that make calculation of the per kWh decupling adjustment as a percentage of the rate difficult. The two shown above contain by far the greatest number of customers.
[45] This charge does not include electricity commodity. The decoupling adjustments as a percentage of that amount would be even smaller.
[46] Based on May 2009 retail rates. These rates change monthly.

Orange & Rockland (electric)
Case/Order No.: 07-E-0949; Order No. 1-302-07E0949
http://documents.dps.state.ny.us/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=07-E-0949&submit=Search+for+Case%2FMatter+Number
Type of decoupling: Reconciles actual, non-weather adjusted revenues with ratemaking revenues (delivery only) per class with certain schedules excluded: economic development, lighting, special contracts. Ratemaking revenues adjust automatically according to a three-year schedule. Program ends June 30, 2011.
Decoupling tariff: General Information Sheet 25
http://www.oru.com/documents/tariffsandregulatorydocuments/ny/electrictariff/electricGI25.pdf ;
Energy efficiency cost recovery: Programs and recovery pending in separate proceeding 07-M-0548 to be decided later in 2008.
History of Adjustments: None to date.

North Carolina

In 2007, North Carolina enacted a statute specifically authorizing the Commission to approve decoupling mechanisms for natural gas utilities.
http://www.ncleg.net/EnactedLegislation/Statutes/HTML/BySection/Chapter_62/GS_62-133.7.html

Piedmont Natural Gas (gas)
Case/Order No.: Dockets G-9, Sub 499 (November 2005) and G-9, Sub 550 (November 2008) http://ncuc.commerce.state.nc.us/cgi-bin/webview/senddoc.pgm?dispfmt=&itype=Q&authorization=&parm2=KAAAAA52350B&parm3=000123283 and http://ncuc.commerce.state.nc.us/cgi-bin/webview/senddoc.pgm?dispfmt=&itype=Q&authorization=&parm2=SAAAAA89280B&parm3=000128268
Type of decoupling: Reconciles actual, non-weather adjusted margin per customer with ratemaking margin per customer, by rate schedule. Adjusts twice a year.
Decoupling tariff: Customer Utilization Tracker (CUT), now called Margin Decoupling Tracker, Appendix C
http://www.piedmontng.com/rates/tariffs/uploadedTariffs/ncTariff.pdf
Energy efficiency cost recovery: In the initial 3-year decoupling experiment, the utility donated funds totaling $750,000 for energy efficiency without recovery; in the extension, the Commission approved including $1.275 million in rates for these programs
Energy efficiency incentives: No.
History of Adjustments

Period	Residential Adjustment $/therm	% of Rate[47]	Small Comm. Adjustment $/therm	% of Rate	Med. Comm. Adjustment $/therm	% of Rate
Apr 2006	0.02262	1.3	0.0123	0.87	0.000860	<0.1
Nov 2006	0.05181	3.1	0.02339	1.7	0.011389	1.0
Apr 2007	0.07791	5.0	0.04127	3.2	0.00996	1.0
Nov 2007	0.06153	3.9	0.03118	2.4	0.01213	1.2
Apr 2008	0.08471	5.1	0.04732	3.3	0.01452	1.2
Nov 2008	0.07494	4.5	0.03819	2.7	0.02394	1.9

Public Service Company of North Carolina (gas)
Case/Order No.: G-5, Sub 495 (October 2008) http://ncuc.commerce.state.nc.us/cgi-bin/webview/senddoc.pgm?dispfmt=&itype=Q&authorization=&parm2=RAAAAA89280B&parm3=000128260
Type of decoupling: Reconciles actual, non-weather adjusted margin per customer with ratemaking margin per customer, by rate schedule. Adjusts twice a year.
Decoupling tariff: Rider C Customer Usage Tracker
http://www.psncenergy.com/NR/rdonlyres/0E0B99DA-911C-4674-AF7E-EA5602091DB6/0/Rider_C.pdf
Energy efficiency cost recovery: Yes, up to $750,000 per year, with no true-up to actual expenditures
History of Adjustments
The Commission just approved the decoupling mechanism for PS Co of North Carolina in October 2008. The first adjustment under the mechanism has not occurred as of May 2009, but will likely appear shortly.

Oregon

Cascade Natural Gas (gas)
Case/Order No.: UG 167; Order No. 06-191
http://apps.puc.state.or.us/orders/2006ords/06-191.pdf
Type of decoupling: Reconciles actual margin per customer with ratemaking margin per customer, adjusted for current customer count but does so separately for weather-related variances and all other variances. Calculations and rate adjustments done on a per rate schedule basis. Earnings sharing applies to extent earnings with adjustment clauses recoveries exceed 175 basis points over allowed return on common equity. Decoupling ends after three years unless the utility re-files.
Decoupling tariff: Rule 19, Original Sheet 30, Conservation Alliance Plan mechanism
http://www.cngc.com/post/rates_tariffs/oregon/0030_Rule_19_-_Conservation_Alliance_Plan.pdf

[47] EIA annual city gate prices for respective years used as a proxy for total rate. It is useful to remember these are not necessarily rate changes in customer bills. Assuming nothing else was occurring, slight rate increases would have occurred in April and November 2006 and April 2007, but then a decrease in November 2007 as the decoupling adjustment declined from the prior level, an increase in April 2008 and an decrease again in November 2008.

Energy efficiency cost recovery: Yes, through a public purpose charge the revenue from which goes to the Energy Trust of Oregon for programs
History of Adjustments

	Decoupling Use-Per-Customer Forecast Change ($/therm)	Decoupling True-Up ($/therm)	Average Total Rate ($/therm)	Total Decoupling as % of Rate
7/06 – 6/07				
Residential	0.01693	0.01538	1.26	2.6
Commercial	0.00934	0.01538	1.12	2.2
7/07 – 6/08				
Residential	(0.0292)	(0.02055)	1.39	(3.6)
Commercial	(0.0112)	(0.02055)	1.25	(2.5)

Northwest Natural Gas (gas)
Case/Order No.: UG 163, Order No. 07-426
http://apps.puc.state.or.us/orders/2007ords/07-426.pdf
Type of decoupling: Reconciles actual, weather-adjusted margin per customer with ratemaking margin per customer, adjusted for current customer count, by customer class. Weather-adjustment occurs through a separate tariff from which customers can choose to opt out. Program runs through October 2012.
Decoupling tariff: Schedule 190
https://www.nwnatural.com/CMS300/uploadedFiles/24190ai(3).pdf
Energy efficiency cost recovery: Through a public purpose charge – the revenues collected go to the Energy Trust of Oregon to run programs.
History of Adjustments

Year	Decoupling Adjustment ($ million)	Decoupling Adjustment (% of rate)
2003	3.6	0.6
2004	2.1	0.36
2005	6.2	0.77
2006	(2.2)	(0.27)
2007	0.8	<0.1
2008	(2.5)	<(1.0)

PacifiCorp (electric)
Case/Order No.: UE-94; Order No. 98-191 (not available electronically)
http://apps.puc.state.or.us/edockets/docket.asp?DocketID=5178
Type of decoupling: Reconciled actual weather-adjusted revenues to ratemaking revenues for distribution services only. Ratemaking revenues increased each year, automatically, by inflation less a 0.3% productivity factor. The mechanism was part of a 3-year

alternate-form-of-regulation (AFOR). The AFOR expired shortly before Oregon restructuring (February 2002).
Decoupling tariff: NA
Energy efficiency cost recovery: Yes, through a public purpose charge included in the package.
History of Adjustments[48]

Customer Class	1999	2000	2001
Residential	(0.39)	1.9	1.85
Small General Service	(0.6)	(0.22)	0.06
General Service	(0.83)	(0.31)	0.09
Large General Service	0.61	0.33	(0.3)
Irrigation	0.45	0.25	(0.2)

Portland General Electric (electric)
Case/Order No.: UE-197; Order No. 09-020 and 09-196
http://apps.puc.state.or.us/orders/2009ords/09-176.pdf
Type of decoupling: Reconciles actual, weather-adjusted fixed cost revenue per customer for residential and small general service to ratemaking fixed cost revenue per customer, by customer class. Decoupling adjustments limited to two percent per year, positive or negative; amounts in excess do not roll over to future periods.[49] Program runs two years.
Decoupling tariff: Schedule 123
http://www.portlandgeneral.com/about_pge/regulatory_affairs/pdfs/schedules/Sched_123.pdf
Energy efficiency cost recovery: Yes, through a regular and an add-on public purpose charge; virtually all of the funding goes to the Energy Trust of Oregon to run programs.
History of Adjustments: None yet. The first should occur in 2010.

Utah

Questar Gas (gas)
Case/Order No.: 05-057-T01 (October 2006)
http://www.psc.utah.gov/utilities/gas/06orders/Oct/05057t01oass.pdf
Type of decoupling: Reconciles actual, non-weather adjusted margin revenues per customer with ratemaking margin revenues per customer, only for the general service class. Accruals to the balancing account per year capped at a cumulative 1% of gross revenues per twelve-month period. Three-year program ends December 2009. Renewal dockets are pending.
Decoupling tariff: 2.08 Conservation Enabling Tariff
http://www.questargas.com/Tariffs/uttariff.pdf
Energy efficiency cost recovery: Yes, 2.09 Demand-side Management tariff
History of Adjustments

[48] The figures shown are actual rate changes (in %) attributable to decoupling within the overall alternate form of regulation.
[49] Commission order approving decoupling applied a 10 basis point return on common equity reduction.

Period	Decoupling Adjustment (% of overall rate)
7/06 – 3/07	0.27
4/07 – 8/07	0.36
9/07 – 3/08	(0.47)
4/08 – 8/08	0.01

Vermont

Central Vermont Public Service (electric)
Case/Order No.: 7336, http://www.state.vt.us/psb/orders/2008/files/7336%20Final.pdf
Type of decoupling: CVPS has an alternative regulatory plan under which it may adjust rates every year based on forecast costs and sales. This limits any benefit of increased sales during a given year to a partial year, at best. In addition, there is an adjustment mechanism for earnings that fall outside of a dead-band of 75 basis points around the allowed return on common equity. Outside of the dead-band, any excess or shortfall is first shared between the utility and customers and, beyond a certain amount, passed through in full to customers. If consumption reductions have caused revenues to fall, this mechanism may trigger a partial collection of the shortfall from customers. It will be difficult to calculate to what extent revenue changes driven by consumption changes have contributed to any adjustment, however.
Decoupling tariff: NA
Energy efficiency cost recovery: Public Purpose Charge with funds sent to Efficiency Vermont, a non-profit third-party provider
History of Adjustments: It will not be possible to isolate the effects of sales changes from other elements included in the plan.

Green Mountain Power (electric)
Case/Order No.: 7175 and 7176 http://www.state.vt.us/psb/orders/2006/files/7175-7176finalorder.pdf
Type of decoupling: As with Central Vermont Public Service (CVPS), the partial decoupling occurs through a comprehensive alternative form of regulation. Under the 3-year plan, GMP changes its rates every year based on a forecast of sales and costs. Thus, sales increases provide, at most, a partial year benefit to the Company. In addition, the earnings sharing provision operates, as CVPS' does, to minimize the loss if sales should fall significantly from forecast as well as share the benefit with customers if sales should rise. The Board explicitly found that full decoupling was unnecessary with this comprehensive plan.
Decoupling tariff: NA
Energy efficiency cost recovery: Public Purpose Charge with funds sent to Efficiency Vermont, a non-profit third-party provider
History of Adjustments: It will not be possible to isolate the effects of sales changes from other elements included in the plan.

Virginia

Virginia Gas (gas)
Case/Order No.: PUE-2008-00060 (December 2008)
http://docket.scc.virginia.gov/vaprod/main.asp
Type of decoupling: For residential customers only, reconciles actual, weather-adjusted revenue per customer to ratemaking revenue per customer approved in an existing performance-based ratemaking plan. A separate weather adjustment rider exists.
Decoupling tariff: Revenue Normalization Adjustment Rider D (not available in utility's on-line tariff)
Energy efficiency cost recovery: Yes
History of Adjustments: None to date.

Washington

Cascade Natural Gas (gas)
Case/Order No.: UG-060256 (January 2007), Order Nos. 05, 06, and 07
http://wutc.wa.gov/rms2.nsf/177d98baa5918c7388256a550064a61e/c6d08ccab87aceb2882572610082a4df!OpenDocument ,
http://wutc.wa.gov/rms2.nsf/177d98baa5918c7388256a550064a61e/2293364b330b249c8825733900798c2c!OpenDocument,
http://wutc.wa.gov/rms2.nsf/177d98baa5918c7388256a550064a61e/67316d49ff5b839e882573670080db42!OpenDocument
Type of decoupling: Reconciles actual, weather-adjusted margin revenue per customer with ratemaking margin revenue per customer, for residential and general commercial service only, by rate schedule. Adjustments occur the annual Temporary Technical Adjustment filing.
Decoupling tariff: Original Sheet 25, Conservation Alliance Plan mechanism
http://www.cngc.com/post/rates_tariffs/washington/021_Rule_Conservation_Alliance_Plan_Mechanism.pdf
Energy efficiency cost recovery: Yes
History of Adjustments: The mechanism took effect October 2007 and the first adjustment period ran through December 2008. Cascade reported an adjustment of ($401,328.82) in March 2009. The minor rate decrease associated with this will occur along with Cascade's PGA filing in Fall 2009.

Avista (gas)
Case/Order No.: UG-060518 (February 2007)
http://wutc.wa.gov/rms2.nsf/177d98baa5918c7388256a550064a61e/f1f6a64cb9d2aa0688257275007a230d!OpenDocument
Type of decoupling: Reconciles actual, weather-adjusted margin revenue per customer with ratemaking margin revenue per customer, for general service customers only, with a positive or negative adjustment of 90% of the difference. Recoveries limited to amounts that bring the utility up to its allowed return on common equity and contingent upon meeting certain energy efficiency targets, using a sliding scale. Any surcharges resulting

from the decoupling calculation limited to two percent per year, cumulative over the program (6%). Three-year pilot program.
Decoupling tariff: Schedule 159 (applies only to General Service)
http://www.avistautilities.com/services/energypricing/tariffs/wa/gas/Documents/WA_159.pdf
Energy efficiency cost recovery: Yes, schedule 191
History of Adjustments

Period	Adjustment Effective in Rates ¢/therm	Percentage of Margin	Percentage of Total Rate[50]
1/07 – 6/07	.257	1.25	0.28
7/07 – 12/07	.257	1.18	0.25
1/08 – 6/08	.593	2.73	0.58
7/08 – 12/08	.593	2.73	0.56

Wisconsin

Wisconsin Public Service Corporation (electric and gas)
Case/Order No.: Docket No. 6690-UR-119
http://psc.wi.gov/apps/erf_share/view/viewdoc.aspx?docid=106184 and
http://psc.wi.gov/apps/erf_share/view/viewdoc.aspx?docid=108565
Type of Decoupling: For both gas and electric, reconciles actual, non-weather-adjusted margin revenues per customer, by customer class, with ratemaking margin revenues per customer, adjusted for actual number of customers. Margin determined several different ways, depending on customer class and whether distribution fixed costs or supply fixed cost. Caps apply – amounts in excess of the cap not booked for later credit or surcharge; caps based on revenue requirement value of 100 basis points of return on common equity ($8 for gas; $14 for electric). Four-year pilot program.
Decoupling Tariffs: PSCW-8, Schedule GRSM-1 (gas)
http://www.wisconsinpublicservice.com/news/gas/GRSM.pdf: PSCW-7, Schedule ERSM-1 (electric) http://www.wisconsinpublicservice.com/news/electric/ERSM.pdf ling
Weather: Revenues not weather adjusted – actual revenues used
Energy efficiency cost recovery: Yes
History of Adjustments: None to date.

Wyoming

Questar Gas Company (gas)
Case/Order No.: 30010-94-GR-8 (May 2009)[51] (order not yet available electronically)

[50] Estimated using 2007, 2008 and January 2009 City Gate gas prices for Washington from EIA. These are not actual rate changes; rather just the adjustment expressed as a percentage of the entire rate. During the period of Avista's decoupling adjustment so far, there have been only two rate changes.
[51] The order is not yet available on the Commission's website.

Type of decoupling: Reportedly similar to Utah mechanism, which reconciles actual, non-weather adjusted margin revenues per customer with ratemaking margin revenues per customer, only for one class of customer.
Decoupling tariff: (tariff not yet available electronically)
Energy efficiency cost recovery: Yes

Closing Observation

Finding all of the decoupling mechanisms and summarizing the adjustments made under them was an exceedingly difficult task. I have a total of over 25 years in utility matters, most spent in the regulatory affairs department of a mid-sized electric utility. I know my way around a tariff and am generally familiar with naming conventions and so forth used by public utility commissions. Despite this wealth of experience, the task was difficult. This caused me to wonder what those not on the "inside" can possibly think of how utilities and regulators present information? Most would not think that the obfuscation was deliberate but many would conclude that ensuring people actually understood utility rates and regulation was not the goal.

The means of tackling this issue range from the simple to the significant. As a simple matter, some conventions around what utilities and commissions call things, what information appears in filing letters and annual (perhaps) information compiling tariffs and riders into complete rate information would help. This would seem a useful place for NARUC to work, in collaboration with the AGA and EEI. A far more significant effort would be the re-thinking of the tariff structure used by virtually every utility in the country. I suspect that most have changed little, in structure, for well over 50 years. General conditions appear in one place, riders and adjustments clauses in another, "base" rates somewhere else in schedule numbers that mean nothing to anyone. Tariffs may now be "on" the Internet, but they are not Internet-enabled or Internet-friendly. It seems likely that the future holds more variation in, and personalization of, rates, not less. Again, the utilities and regulators should collaborate to envision the "tariffs" (if we still call them that) of the future and how the industry might go about the transformation.