



# Alternative Regulation for Emerging Utility Challenges: 2015 Update

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# I. Introduction

Investor-owned electric utilities in the United States are buffeted today by varied and rapid changes in the business conditions they face. For vertically integrated electric utilities (“VIEUs”) and utility distribution companies (“UDCs”) alike, the traditional cost of service approach to rate regulation is often not ideal for helping utilities cope with these changes. Alternative approaches to regulation (“Altreg”) can often help utilities secure better outcomes for their customers and shareholders.

The changing business climate stems primarily from three root causes. One is pressure, from policymakers and many customers, for the power industry to lighten its environmental footprint. In addition to evolving renewable portfolio standards at the state level, utilities must comply with an array of federal initiatives such as the Environmental Protection Agency’s Clean Power Plan. Demand-side management (“DSM”) programs and tightening building codes and appliance standards encourage energy efficiency. Some customers seek power from greener sources than the increasingly clean portfolios of utilities. Self generation from rooftop solar is one means to this end, and its cost is falling. Customer-sited distributed generation (“DG”) must be accommodated, and utilities must purchase power surpluses that these facilities generate at regulated rates.

A second force for change is technological progress in metering and distribution. Advanced metering infrastructure and other smart grid technologies can improve reliability and facilitate integration of intermittent renewables. Time-sensitive pricing can encourage customers to use the grid in less costly ways. New value-added optional products and services can be offered which benefit customers.

A third force for change is increased concern about the reliability and resiliency of grid service. Some facilities are approaching advanced age, and some need more protection from severe weather. Many customers seek better quality service.

These forces are having important practical effects on utilities. Growth in the demand for their traditional services has slowed, and utilities face competition from distributed energy resources (“DERs”). Nevertheless, some utilities need capital expenditures (“capex”) for cleaner generating capacity, smart grid facilities, increased resiliency, and replacement of aging assets. Many new facilities don’t automatically trigger revenue growth. Increased marketing flexibility is needed to meet competitive challenges and complex, changing customer needs.

Under traditional regulation, the base rates that compensate utilities for costs of non-energy inputs are reset only in general rate cases with historical test years. These lengthy proceedings require a detailed review of all costs and their allocation amongst the utility’s retail services. Revenue from secondary sources (e.g., off-system sales) is imputed against the revenue requirement.

Most base rate revenue is drawn from volumetric and other usage charges. Since the cost of base rate inputs is driven more by capacity than system use in the short run, a utility’s finances are sensitive between rate

cases to the gap between growth in system use and capacity. A convenient proxy for this gap is the growth in use per customer (aka “average use”). The need for rate cases increases when average use declines.

Traditional regulation is ill-suited for addressing many of today’s challenges. Growth in average use was once positive, and the resulting incremental revenues helped utilities finance rising cost without rate cases. Today, growth in the average use of residential and commercial customers is typically static and often negative. Utilities needing normal or high capital expenditures are then compelled to file rate cases more frequently. These involve high regulatory cost and are nonetheless frequently uncompensatory when they involve historical test years. Frequent rate cases also reduce utility opportunities to increase earnings from improved cost containment and marketing. Traditional regulation also does not allow for many value-added or optional rates and services. Improved utility performance is thus discouraged at a time when it is increasingly needed to respond to competitive pressures.

Increased financial attrition has been a factor in the long-term decline of average credit ratings among investor-owned electric utilities. This is illustrated in Figure 1. Higher risk raises financing costs and can discourage needed investments.

Alternative approaches to regulation have been developed which handle today’s business conditions better. Some, such as multiyear rate plans, formula rates, and fully-forecasted test years, can involve sweeping regulatory change. Others, like revenue decoupling and cost trackers, target specific challenges.

This survey, now updated to include precedents through mid-2015, explains Altreg options and details precedents in the regulation of retail electric utility rates. A summary of states that currently use these approaches is featured in Table 1. Information is also provided on precedents for gas and water distributors and for energy utilities in Australia, Canada, and Britain. This year’s survey also discusses marketing flexibility, a new Altreg area of growing interest to EEI members.

Figure 1

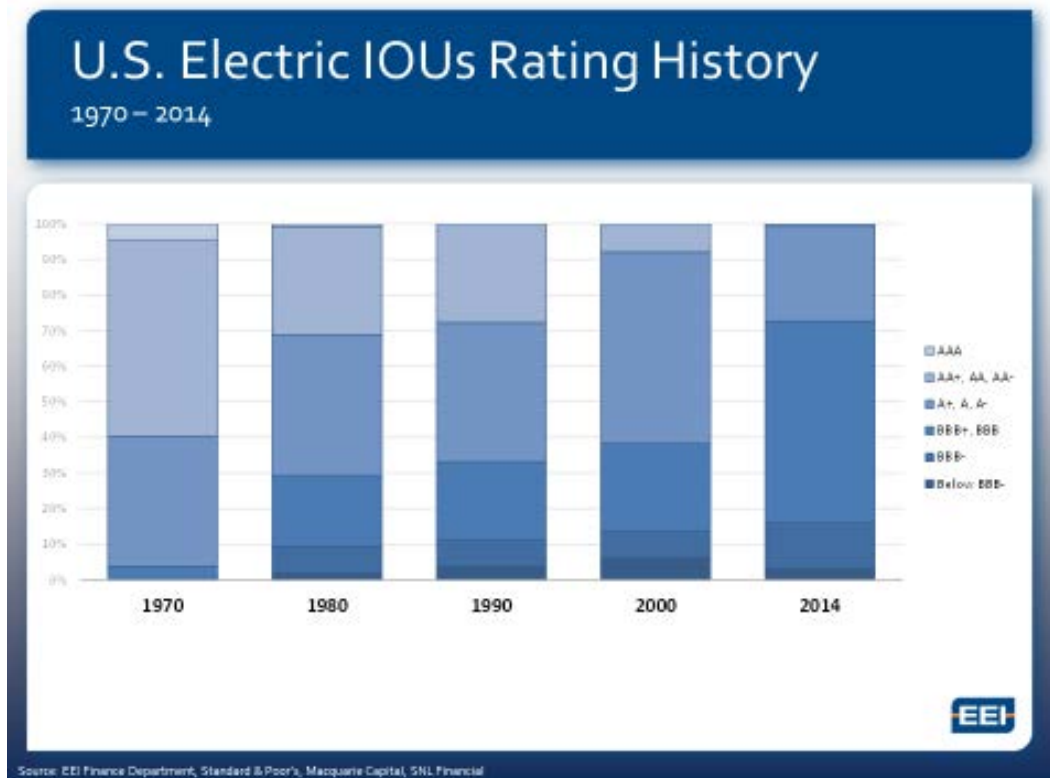


Table 1

### Alternative Regulation Tools: An Overview of Current Precedents

| State                | Capital Cost Trackers  | Measures that Relax the Use/Revenue Link |                                    |                               | Multiyear Rate Plans <sup>1</sup> | Retail Formula Rate Plans | Forward Test Years |
|----------------------|------------------------|--|------------------------------------|-------------------------------|-----------------------------------|---------------------------|--------------------|
|                      |                        | Decoupling True Up Plans                 | Lost Revenue Adjustment Mechanisms | Fixed Variable Retail Pricing |                                   |                           |                    |
| Alabama              | Electric & Gas         |  |                                    |                               |                                   | Electric & Gas            | Yes                |
| Alaska               |                        |  |                                    |                               |                                   |                           |                    |
| Arizona              | Electric, Gas, & Water | Gas only                                 | Electric & Gas                     |                               | Electric only                     |                           |                    |
| Arkansas             | Electric & Gas         | Gas only                                 | Electric & Gas                     |                               |                                   |                           |                    |
| California           | Electric & Gas         | Electric & Gas                           |                                    |                               | Electric & Gas                    |                           | Yes                |
| Colorado             | Electric & Gas         |  |                                    |                               | Electric only                     |                           |                    |
| Connecticut          | Electric, Gas, & Water | Electric & Gas                           | Gas only                           | Electric & Gas                |                                   |                           | Yes                |
| Delaware             | Electric, Gas, & Water |  |                                    |                               |                                   |                           |                    |
| District of Columbia | Electric & Gas         | Electric only                            |                                    |                               |                                   |                           |                    |
| Florida              | Electric & Gas         |  |                                    | Gas only                      | Electric only                     |                           | Yes                |
| Georgia              | Electric & Gas         | Gas only                                 |                                    | Gas only                      | Electric only                     | Gas only                  | Yes                |
| Hawaii               | Electric only          | Electric only                            |                                    |                               | Electric only                     |                           | Yes                |
| Idaho                | Electric only          | Electric only                            |                                    |                               |                                   |                           |                    |
| Illinois             | Gas & Water            | Gas only                                 |                                    | Electric & Gas                |                                   | Electric only             | Yes                |
| Indiana              | Electric, Gas, & Water | Gas only                                 | Electric only                      |                               | Gas only                          |                           |                    |
| Iowa                 | Gas only               |  |                                    | Gas only                      | Electric only                     |                           |                    |
| Kansas               | Gas only               |  | Electric only                      | Gas only                      |                                   |                           |                    |
| Kentucky             | Electric & Gas         |  | Electric & Gas                     | Gas only                      |                                   |                           | Yes                |
| Louisiana            | Electric only          |  | Electric only                      |                               | Electric only                     | Electric & Gas            | Yes                |
| Maine                | Electric, Gas, & Water | Electric only                            |                                    | Gas only                      | Gas only                          |                           | Yes                |
| Maryland             | Electric & Gas         | Electric & Gas                           |                                    |                               |                                   |                           |                    |
| Massachusetts        | Electric & Gas         | Electric & Gas                           | Electric & Gas                     |                               | Gas only                          |                           |                    |
| Michigan             | Gas only               | Gas only                                 |                                    |                               |                                   |                           | Yes                |

Table 1 continued

| State          | Capital Cost Trackers  | Measures that Relax the Use/Revenue Link |                                    |                               | Multiyear Rate Plans <sup>1</sup> | Retail Formula Rate Plans | Forward Test Years |
|----------------|------------------------|--|------------------------------------|-------------------------------|-----------------------------------|---------------------------|--------------------|
|                |                        | Decoupling True Up Plans                 | Lost Revenue Adjustment Mechanisms | Fixed Variable Retail Pricing |                                   |                           |                    |
| Minnesota      | Electric & Gas         | Electric & Gas                           |                                    |                               |                                   |                           | Yes                |
| Mississippi    | Electric & Gas         |  | Electric & Gas                     | Electric only                 |                                   | Electric & Gas            | Yes                |
| Missouri       | Gas & Water            |  |                                    | Gas only                      |                                   |                           |                    |
| Montana        | Electric & Gas         |  | Gas only                           |                               |                                   |                           |                    |
| Nebraska       | Gas only               |  |                                    | Gas only                      |                                   |                           |                    |
| Nevada         | Gas only               | Gas only                                 | Electric only                      |                               |                                   |                           |                    |
| New Hampshire  | Electric, Gas, & Water |  |                                    | Gas only                      | Electric & Gas                    |                           |                    |
| New Jersey     | Electric, Gas, & Water | Gas only                                 |                                    |                               |                                   |                           |                    |
| New Mexico     |                        |  |                                    |                               |                                   |                           | Yes                |
| New York       | Gas & Water            | Electric & Gas                           | Gas only                           | Electric & Gas                | Electric & Gas                    |                           | Yes                |
| North Carolina | Gas & Water            | Gas only                                 | Electric only                      |                               |                                   |                           |                    |
| North Dakota   | Electric only          |  |                                    | Gas only                      | Electric only                     |                           | Yes                |
| Ohio           | Electric, Gas, & Water | Electric only                            | Electric only                      | Gas only                      | Electric only                     |                           |                    |
| Oklahoma       | Electric only          |  | Electric only                      | Electric & Gas                |                                   | Gas only                  |                    |
| Oregon         | Electric & Gas         | Electric & Gas                           | Electric & Gas                     |                               |                                   |                           | Yes                |
| Pennsylvania   | Electric, Gas, & Water |  |                                    | Gas only                      |                                   |                           | Yes                |
| Rhode Island   | Electric & Gas         | Electric & Gas                           |                                    |                               |                                   |                           | Yes                |
| South Carolina | Electric only          |  | Electric only                      |                               |                                   | Gas only                  |                    |
| South Dakota   | Electric only          |  |                                    |                               |                                   |                           |                    |
| Tennessee      | Gas only               | Gas only                                 |                                    | Gas only                      |                                   | Gas only                  | Yes                |
| Texas          | Electric & Gas         |  |                                    | Gas only                      |                                   | Gas only                  |                    |
| Utah           | Gas only               | Gas only                                 |                                    |                               |                                   |                           | Yes                |
| Vermont        |                        |  |                                    | Gas only                      |                                   |                           |                    |
| Virginia       | Electric & Gas         | Gas only                                 |                                    | Gas only                      | Electric only                     |                           |                    |
| Washington     | Gas only               | Electric & Gas                           |                                    |                               | Electric & Gas                    |                           |                    |
| West Virginia  | Electric only          |  |                                    |                               |                                   |                           |                    |
| Wisconsin      |                        |  |                                    | Gas only                      |                                   |                           | Yes                |
| Wyoming        | Electric only          | Gas only                                 | Electric & Gas                     | Electric & Gas                |                                   |                           | Yes                |

<sup>1</sup> This column excludes plans involving rate freezes without extensive supplemental funding from trackers.



## II. Cost Trackers

A cost tracker is a mechanism for expedited recovery of specific utility cost (e.g., outside of a rate case). Balancing accounts are typically used to track unrecovered costs. Cost recovery is often implemented using tariff sheet provisions called riders.

Trackers are used in various situations where they are more practical than rate cases for addressing particular costs. Utilities usually recover fuel and purchased power costs via trackers because the volatility and substantial size of these costs would otherwise lead to frequent rate cases and materially impact utility risk. Other volatile expenses that are sometimes addressed with trackers include those for pensions, severe storms, and uncollectible bills.

A second use of trackers is for costs incurred due to policies of government agencies. Examples here include franchise fees and certain taxes. Tracking costs like these is fair to utilities and encourages government agencies to consider the impact of their policies on customer bills.

Trackers are also used to compensate utilities for costs that are rapidly rising and don't otherwise trigger new revenue, whether or not they are volatile or mandated. This encourages needed expenditures and reduces risk and the frequency of rate cases. Examples of operation and maintenance ("O&M") expenses that are sometimes tracked due in large measure to their rapid growth include those for health care.

Trackers for some costs have multiple rationales. DSM expenses, for example, are often sizable and sometimes grow rapidly.<sup>1</sup> Utility DSM programs are often mandated. Additionally, DSM can slow growth in the average use of power and reduce the need for plant additions, important sources of earnings growth for utilities. Tracking DSM expenses helps to balance utility incentives to embrace DSM.

Capital cost trackers typically address the accumulating depreciation, return on asset value, and taxes that result from the capex.<sup>2</sup> Capital costs can qualify for tracker treatment on several grounds. Major plant additions are volatile. Capex might be necessitated by highway construction or changes in government safety, reliability, or environmental standards. Capex is sometimes large enough to cause brisk cost growth that would otherwise occasion frequent rate cases.

An early use of capital cost trackers in the electric utility industry was to address construction costs of large power plants. These plants can take years to construct. An allowance in rates for a return on funds used during construction was traditionally not permitted until assets were used and useful and a rate case was filed. Deferred recovery of the allowance strains utility cash flow, increases financing expenses, and induces more rate "shock" when the value of the plant and construction financing is finally added to the rate base.

<sup>1</sup> This survey only documents capital cost trackers. Trackers for DSM expenses are ubiquitous so that there is less need for documentation.

<sup>2</sup> Recovery is sometimes achieved by keeping a rate case open beyond the date of a final decision for the limited purpose of adding assets to the revenue requirement.

Many commissions have addressed these problems by making a return on construction work in progress (“CWIP”) eligible for immediate recovery. Capital cost trackers have often been used in lieu of frequent rate cases to obtain CWIP recovery.

Capital costs of distribution system modernization are sometimes recovered using trackers for somewhat different reasons. The annual expenditure may not be as large as that for large generation units, and construction of specific assets usually takes less than a year. However, the capex can still be sizable and doesn’t automatically trigger new revenue when completed. A tracker for accelerated modernization costs can help a company modernize its grid and improve its services without frequent rate cases.

Capital costs of generation emissions controls are often accorded tracker treatment. These controls are occasioned by the emissions policies of state and federal agencies. Additionally, the facilities do not produce revenue and some facilities typically become used and useful each year over a series of years.

There are varied treatments of costs in approved capital trackers. Regulators often approve tracked capex budgets in advance, usually after considerable deliberation. Procedures for reviewing the need for generation plant additions are especially well established. Once a budget is set, the treatment of variances between actual and budgeted cost becomes an issue. Some trackers permit conventional prudence review treatment of cost overruns. In other cases, no adjustments are subsequently made if cost exceeds the budget. In between these extremes are mechanisms in which deviations, of prescribed magnitude, from budgeted amounts are shared formulaically (e.g., 50-50) between the utility and its customers. Utilities are also permitted sometimes to share in the benefits of capex underspends. The prudence of tracked capex is often subject to a final review when the cost is added to rate base, a step that usually occurs in the next rate case.

Recent precedents for capital cost trackers are listed in Table 2 and Figures 2 and 3. It can be seen that the precedents are numerous and continue to grow. This is the most widely used Altreg tool in the United States. For electric utilities, trackers for emissions controls, generation capacity, advanced metering infrastructure, and general system modernization have been especially common in recent years. Trackers for gas distributors typically address the cost of replacing old cast iron and bare steel mains. Trackers for water utilities, sometimes called distribution system improvement charges, are also common for accelerated modernization.

Figure 2: Recent Capital Cost Tracker Precedents by State: Energy Utilities

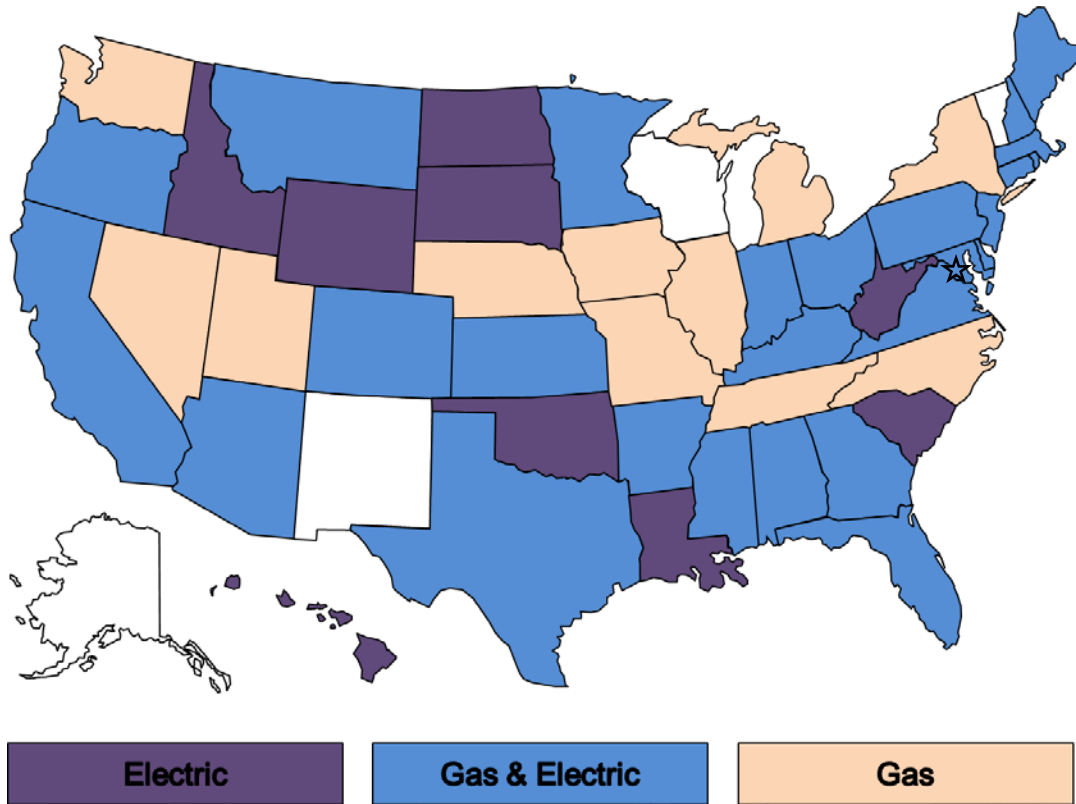


Figure 3: Recent Capital Cost Tracker Precedents by State: Water Utilities

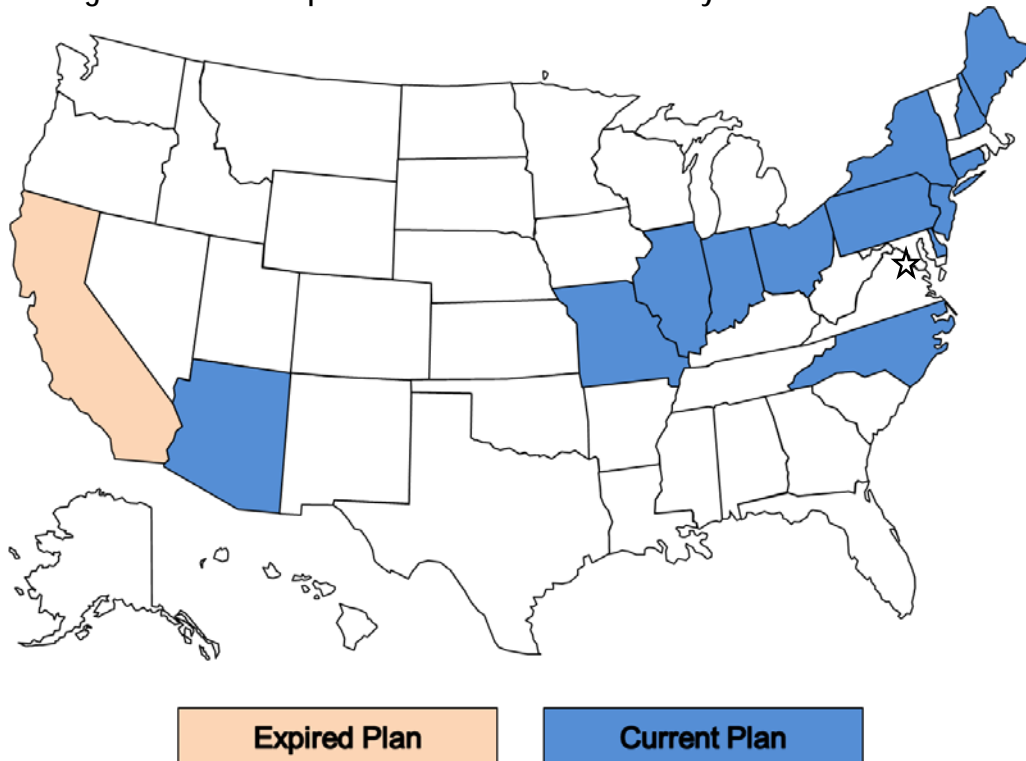


Table 2

# Recent Capital Cost Tracker Precedents

| Jurisdiction | Company Name                          | Services Included | Tracker Name  | Eligible Investments   | Case Reference  |
|--------------|---------------------------------------|-------------------|---|--|---|
| AL           | Alabama Power                         | Electric          | Rate Certificated New Plant   | Any approved by Commission through CPCN  | Dockets 18117 and 18416 (November 1982)                             |
| AL           | Mobile Gas Service                    | Gas               | Cast Iron Replacement Factor  | Replacement of cast iron mains   | Docket 24794 (November 1995)  |
| AR           | Arkansas Oklahoma Gas                 | Gas               | Act 310 Surcharge   | Relocations of pipelines mandated by government agencies   | Docket 12-088-U (July 2013)   |
| AR           | Arkansas Oklahoma Gas                 | Gas               | System Safety Enhancement Rider                                       | Replacement of bare steel mains, mains on low pressure systems, mains that are subject of an advisory notice by government that company deems to be unsatisfactory   | Docket 13-078-U (July 2014)   |
| AR           | CenterPoint Energy Arkla              | Gas               | Main Replacement Rider  | Replacement of cast iron and bare steel mains and services   | Docket 06-161-U (October 2007)                                      |
| AR           | CenterPoint Energy Arkla              | Gas               | Government Mandated Expenditure Surcharge Rider                       | Replacements resulting from highway and street rebuilding  | Docket 10-108-U (March 2011)  |
| AR           | Empire District Electric              | Electric          | Alternative Generation Environmental Recovery Rider                   | Environmental  | Docket 15-010-U (August 2015)                                       |
| AR           | Oklahoma Gas & Electric               | Electric          | Smart Grid Rider  | Systemwide smart grid implementation   | Docket 10-109-U (August 2011)                                       |
| AR           | SourceGas Arkansas                    | Gas               | At-Risk Meter Relocation Program Rider                                | Installation of new services for meters relocated due to motor vehicle collision risk  | Docket 13-079-U (July 2014)   |
| AR           | SourceGas Arkansas                    | Gas               | Main Replacement Program Rider  | Replacement of bare steel and coated steel mains, mains that are subject of an advisory notice by government that company deems to be unsatisfactory, and associated services  | Docket 13-079-U (July 2014)   |
| AR           | SourceGas Arkansas                    | Gas               | Act 310 Surcharge   | Bare steel and cast iron pipeline replacement, in-line inspection project, emissions controlling catalysts for compressor station engines, greenhouse gas monitoring of some regulator stations, highway relocation projects                       | Docket 13-072-U (April 2014)  |
| AR           | SWEPSCO                               | Electric          | Alternative Generation Recovery Rider                                 | New generation   | Docket 09-008-U (November 2009)                                     |
| AR           | SWEPSCO                               | Electric          | Rider Environmental Compliance Surcharge                              | Environmental  | Docket 15-021-U (October 2015)                                      |
| AZ           | Arizona Public Service                | Electric          | Renewable Energy Standard Adjustment Schedule                         | Renewables not recovered in base rates   | Docket E-01345A-08-0172   |
| AZ           | Arizona Public Service                | Electric          | Environmental Improvement Surcharge                                   | Environmental improvement projects   | Docket E-01345A-11-0224 (May 2012)                                  |
| AZ           | Arizona Public Service                | Electric          | Four Corners Rate Rider Surcharge                                     | Generation   | Docket E-01345A-11-0224 (December 2014)                             |
| AZ           | Arizona Water Company                 | Water             | Arsenic Cost Recovery Mechanism                                       | Investments to reduce arsenic in water supply  | Various (operating regions have separate decisions approving ACRMs) |
| AZ           | Arizona Water Company - Eastern Group | Water             | System Improvement Benefits Mechanism                                 | Replacement of leak prone mains and related services, meters, and hydrants, replace meters that do not have lead free brass, other replacements for mains, services, meters, and hydrants that are at the end of their useful life                 | Decision 73938 (June 2013)  |
| AZ           | Southwest Gas                         | Gas               | Customer Owned Yard Line Cost Recovery Mechanism                      | Replacement and ownership of customer-owned yard lines that have been shown to be leaking  | Docket G-01551A-10-0458 (January 2012)                              |
| AZ           | Tucson Electric Power                 | Electric          | Environmental Compliance Adjustor                                     | Miscellaneous environmental projects   | Decision 73912 (June 2013)  |
| CA           | Pacific Gas & Electric                | Electric          | Smart Grid Memorandum Account   | Smart grid projects that received DOE matching funds   | Decision 09-09-029 (September 2009)                                 |
| CA           | Pacific Gas & Electric                | Gas Transmission  | Pipeline Safety Implementation Plan                                   | Pipeline replacement, automated valve installation, and upgrades to pipeline   | Decision 12-12-030 (December 2012)                                  |
| CA           | Pacific Gas & Electric                | Electric          | Smart Grid Pilot Deployment Project Balancing Account                 | Pilot programs for smart grid line sensors, volt/VAR optimization, detection and location of distribution line outages and faulted circuits, and information technology investments to improve short term demand forecasting for power procurement | Decision 13-03-032 (March 2013)                                     |
| CA           | San Diego Gas & Electric              | Electric & Gas    | Advanced Metering Infrastructure Balancing Account                    | AMI  | Decision 07-04-043 (April 2007)                                     |
| CA           | San Diego Gas & Electric              | Electric          | Energy Storage Balancing Account                                      | Projects to store solar energy   | Decision 13-05-010 (May 2013)                                       |
| CA           | San Diego Gas & Electric              | Gas               | Post-2011 Distribution Integrity Management Program Balancing Account | DIMP related costs   | Decision 13-05-010 (May 2013)                                       |
| CA           | San Diego Gas & Electric              | Gas               | Transmission Integrity Management Program Balancing Account           | TIMP related costs   | Decision 13-05-010 (May 2013)                                       |
| CA           | San Diego Gas & Electric              | Gas Transmission  | Safety Enhancement Capital Cost Balancing Account                     | Replacement of mains that fail pressure tests or that cannot be pressure tested  | Decision 14-06-007 (June 2014)                                      |
| CA           | Southern California Edison            | Electric          | SmartConnect Balancing Account  | Advanced metering infrastructure project   | Decision 08-09-039 (September 2008)                                 |
| CA           | Southern California Edison            | Electric          | Solar PV Balancing Account  | Solar generation   | Decision 09-06-049 (June 2009)                                      |
| CA           | Southern California Gas               | Gas               | Advanced Metering Infrastructure Balancing Account                    | AMI  | Decision 10-04-027 (April 2010)                                     |
| CA           | Southern California Gas               | Gas               | Post-2011 Distribution Integrity Management Program Balancing Account | DIMP related costs   | Decision 13-05-010 (May 2013)                                       |
| CA           | Southern California Gas               | Gas               | Transmission Integrity Management Program Balancing Account           | TIMP related costs   | Decision 13-05-010 (May 2013)                                       |
| CA           | Southern California Gas               | Gas Transmission  | Safety Enhancement Capital Cost Balancing Account                     | Replacement of mains that fail pressure tests or that cannot be pressure tested  | Decision 14-06-007 (June 2014)                                      |
| CO           | Black Hills Colorado Electric         | Electric          | Transmission Cost Adjustment Rider                                    | Transmission projects  | Docket 09-014E, Decision C09-0271 (March 2009)                      |
| CO           | Black Hills Colorado Electric         | Electric          | Clean Air Clean Jobs Act Rider  | Gas-fired generation   | Docket 14AL-0393E, Decision C14-1504 (December 2014)                |
| CO           | Public Service Company of Colorado    | Electric          | Transmission Cost Adjustment  | Transmission projects  | Docket 07A-339E, Decision C07-1085 (December 2007)                  |
| CO           | Public Service Company of Colorado    | Gas               | Pipeline Safety Integrity Adjustment                                  | Gas distribution and transmission integrity management programs, main replacement, partial recovery of two large pipeline replacements   | Docket 10-AL-963G (August 2011)                                     |

Table 2 continued

| Jurisdiction | Company Name                          | Services Included | Tracker Name   | Eligible Investments   | Case Reference   |
|--------------|---------------------------------------|-------------------|--|--|--|
| CO           | Public Service Company of Colorado    | Electric          | Clean Air Clean Jobs Act Rider                                 | Miscellaneous environmental projects including gas-fired generation, scrubbers   | Proceeding 14A-680E, Decision C15-0292 (March 2015)    |
| CO           | Rocky Mountain Gas                    | Gas Transmission  | System Safety and Integrity Rider                              | TIMP, DIMP, and other safety regulatory compliance projects  | Docket 13AL-0046G, Decision R14-0114 (February 2014)   |
| CT           | Aquarion Water Company of Connecticut | Water             | Water Infrastructure and Conservation Adjustment               | Replacement of infrastructure including mains, valves, services, meters, and hydrants that have reached the end of their useful life or are no longer able to function as intended | Docket 08-06-21W101 (December 2008)                    |
| CT           | Connecticut Light & Power             | Electric          | System Resiliency Plan   | Structural hardening   | Docket 12-07-06 (January 2013)                         |
| CT           | Connecticut Natural Gas               | Gas               | System Expansion Reconciliation Mechanism                      | System expansion   | Docket 13-06-02 (November 2013)                        |
| CT           | Connecticut Natural Gas               | Gas               | DIMP True-Up Mechanism   | Cast iron and bare steel main replacement  | Docket 13-06-08; (January 2014)                        |
| CT           | Connecticut Water                     | Water             | Water Infrastructure and Conservation Adjustment               | Replacement of infrastructure including mains, valves, services, meters, and hydrants that have reached the end of their useful life or are no longer able to function as intended | Docket 08-10-15W101 (March 2009)                       |
| CT           | Southern Connecticut Gas              | Gas               | System Expansion Reconciliation Mechanism                      | System expansion   | Docket 13-06-02 (November 2013)                        |
| CT           | Torrington Water                      | Water             | Water Infrastructure and Conservation Adjustment               | Replacement of infrastructure including mains, valves, services, meters, and hydrants that have reached the end of their useful life or are no longer able to function as intended | Docket 09-06-17W101 (December 2009)                    |
| CT           | United Water Connecticut              | Water             | Water Infrastructure and Conservation Adjustment               | Replacement of infrastructure including mains, valves, services, meters, and hydrants that have reached the end of their useful life or are no longer able to function as intended | Docket 09-06-17W101 (December 2009)                    |
| CT           | Yankee Gas Services                   | Gas               | System Expansion Reconciliation Mechanism                      | System expansion   | Docket 13-06-02 (November 2013)                        |
| DC           | Potomac Electric Power                | Electric          | Underground Project Charge                                     | Undergrounding of specific feeders   | Formal Case 1116 (November 2014)                       |
| DC           | Washington Gas Light                  | Gas               | Plant Recovery Adjustment                                      | Remediation/replacement of mechanical couplings  | Formal Case 1027 (December 2009)                       |
| DC           | Washington Gas Light                  | Gas               | Accelerated Pipe Replacement Plan Adjustment                   | Replacement of cast iron mains, bare steel mains and services and "black plastic" services   | Formal Case 1115 (January 2015)                        |
| DE           | Artesian Water                        | Water             | Distribution System Improvement Charge                         | Replacement of infrastructure (e.g., existing mains, services, meters, and hydrants)   | Docket 01-474 (December 2001)                          |
| DE           | Delmarva Power & Light                | Gas               | Utility Facility Relocation Charge                             | Replacements due to mandated relocations that are not otherwise reimbursed   | Docket 12-546 (October 2013)                           |
| DE           | Delmarva Power & Light                | Electric          | Utility Facility Relocation Charge                             | Replacements due to mandated relocations that are not otherwise reimbursed   | Docket 13-115 (August 2014)                            |
| DE           | Sussex Shores Water                   | Water             | Distribution System Improvement Charge                         | Replacement of infrastructure (e.g., existing mains, services, meters, and hydrants)   | Docket 01-470 (December 2001)                          |
| DE           | Tidewater Utilities                   | Water             | Distribution System Improvement Charge                         | Replacement of infrastructure (e.g., existing mains, services, meters, and hydrants)   | Docket 03-210 (May 2003)                               |
| DE           | United Water Delaware                 | Water             | Distribution System Improvement Charge                         | Replacement of infrastructure (e.g., existing mains, services, meters, and hydrants)   | Docket 01-481 (December 2001)                          |
| FL           | Chesapeake Utilities                  | Gas               | Gas Reliability Infrastructure Program Tariff                  | Replacement of bare steel mains and services   | Docket 120036-GU (September 2012)                      |
| FL           | Florida City Gas                      | Gas               | Safety and Access Verification Expedited Program               | Replacement of unprotected steel mains, relocation of certain gas mains in rear lot easements  | Docket 150116-GU (September 2015)                      |
| FL           | Florida Power and Light               | Electric          | Environmental Cost Recovery Clause                             | Miscellaneous environmental projects   | Docket 080281-EI (August 2008)                         |
| FL           | Florida Power and Light               | Electric          | Capacity Cost Recovery Clause                                  | Nuclear power  | Docket 090009-EI (November 2009)                       |
| FL           | Florida Power and Light               | Electric          | Generation Base Rate Adjustment                                | Generation   | Docket 120015-EI (December 2012)                       |
| FL           | Florida Public Utilities              | Gas               | Gas Reliability Infrastructure Program Tariff                  | Replacement of bare steel mains and services   | Docket 120036-GU (September 2012)                      |
| FL           | Gulf Power                            | Electric          | Environmental Cost Recovery Clause                             | Miscellaneous environmental projects   | Docket 930613-EI (January 1994)                        |
| FL           | Peoples Gas System                    | Gas               | Cast Iron/Bare Steel Replacement Rider                         | Replacement of bare steel and cast iron pipes  | Docket 110320-GU (September 2012)                      |
| FL           | Progress Energy Florida               | Electric          | Environmental Cost Recovery Clause                             | Miscellaneous environmental projects   | Docket 050078-EI (September 2005)                      |
| FL           | Progress Energy Florida               | Electric          | Capacity Cost Recovery Clause                                  | Nuclear power  | Docket 090009-EI (November 2009)                       |
| FL           | Progress Energy Florida               | Electric          | Generation Base Rate Adjustment                                | Generation   | Docket 130208 (November 2013)                          |
| FL           | Tampa Electric                        | Electric          | Environmental Cost Recovery Clause                             | Miscellaneous environmental projects   | Docket 960688-EI (August 1996)                         |
| GA           | Atlanta Gas Light                     | Gas               | Pipeline Replacement Program Cost Recovery Rider               | Replacement of cast iron and bare steel pipe   | Docket 29950 as STRIDE tracker in 2009                 |
| GA           | Atlanta Gas Light                     | Gas               | Strategic Infrastructure Development and Enhancement Surcharge | Pre-1985 plastic mains and services replacement, planned customer expansions, and infrastructure improvements that sustain reliability and operational flexibility                 | Docket 8516-U and 29950 (October 2009 and August 2013) |
| GA           | Atmos Energy (now Liberty Utilities)  | Gas               | Pipe Replacement Surcharge                                     | Replace cast iron and bare steel pipe  | Docket 12509-U (December 2000)                         |
| GA           | Georgia Power Company                 | Electric          | Environmental Compliance Cost Recovery                         | Miscellaneous environmental projects   | Docket 25060-U (December 2007)                         |
| GA           | Georgia Power Company                 | Electric          | Nuclear Construction Cost Recovery                             | Nuclear generation   | Docket 27800, Senate Bill 31                           |
| HI           | Hawaii Electric Light                 | Electric          | Renewable Energy Infrastructure Program Surcharge              | Renewable energy infrastructure  | Docket 2007-0416 (December 2009)                       |
| HI           | Hawaiian Electric Company             | Electric          | Renewable Energy Infrastructure Program Surcharge              | Renewable energy infrastructure  | Docket 2007-0416 (December 2009)                       |
| HI           | Maui Electric                         | Electric          | Renewable Energy Infrastructure Program Surcharge              | Renewable energy infrastructure  | Docket 2007-0416 (December 2009)                       |
| IA           | Black Hills Energy                    | Gas               | System Safety Maintenance Adjustment                           | Replacement of steel and pvc pipe, relocations mandated by local governments   | Docket RPU-2012-0004 (March 2013)                      |
| ID           | PacifiCorp                            | Electric          | Energy Cost Adjustment Mechanism                               | Lake Side II generation facility   | Case PAC-E-13-04 (October 2013)                        |

Table 2 continued

| Jurisdiction | Company Name  | Services Included | Tracker Name  | Eligible Investments  | Case Reference  |
|--------------|---|-------------------|---|---|---|
| IL           | Ameren Illinois   | Gas               | Rider Qualifying Infrastructure Plant   | Replacement of prone to leak distribution and transmission pipe, installation of AMI and communications infrastructure, replacing or installing transmission or distribution facilities to establish over-pressure protection, replacement of difficult to locate mains and services, replacement of high pressure transmission pipelines without a recorded maximum allowable operating pressure, replacements to facilitate an upgrade from a low pressure system to a high pressure system | Docket 14-0573 (January 2015)                           |
| IL           | Consumers Illinois Water Company (Kankakee, Vermilion, Woodhaven Districts) | Water             | Qualifying Infrastructure Plant Surcharge Rider   | Replacement of non-revenue producing infrastructure (e.g., existing mains, services, meters, and hydrants)  | Docket 01-0561 (December 2001)                          |
| IL           | Illinois-American Water (Chicago Metro Division)                            | Water             | Qualifying Infrastructure Plant Surcharge Rider   | Replacement of non-revenue producing infrastructure (e.g., existing mains, services, meters, and hydrants)  | Docket 09-0251 (March 2010)                             |
| IL           | Illinois-American Water (Single Tariff Pricing Zone)                        | Water             | Qualifying Infrastructure Plant Surcharge Rider   | Replacement of non-revenue producing infrastructure (e.g., existing mains, services, meters, and hydrants)  | Docket 04-0336 (December 2004)                          |
| IL           | Northern Illinois Gas   | Gas               | Rider Qualifying Infrastructure Plant   | Replacement of cast iron pipe, non-cast iron pipe, and copper services; relocation of meters from inside customers' premises; upgrading of system from low pressure to medium pressure; replacement or installation of regulator stations, regulators, valves and associated facilities to establish over-pressure protection   | Docket 14-0292 (July 2014)                              |
| IL           | Peoples Gas Light & Coke  | Gas               | Rider Qualifying Infrastructure Plant   | Replacement of cast and ductile iron, relocation of meters from inside customers' premises, upgrading of system from low pressure to medium pressure, replacement of high pressure transmission pipelines at higher risk of failure or lacking records, installation of regulator stations to establish over-pressure protection  | Docket 13-0534 (January 2014)                           |
| IN           | Duke Energy Indiana   | Electric          | Qualified Pollution Control Property  | Miscellaneous environmental projects  | Cause 41744 (February 2001)                             |
| IN           | Duke Energy Indiana   | Electric          | Integrated Coal Gasification Combined Cycle Generating Facility Revenue Recovery Adjustment | Integrated gasification combined cycle generating plant   | Docket 43114 (November 2007)                            |
| IN           | Indiana Michigan Power  | Electric          | Clean Coal Technology Rider   | Miscellaneous environmental projects  | Cause 43636 (June 2009)                                 |
| IN           | Indiana Water Service   | Water             | Distribution System Improvement Charge  | Replacement of non-revenue producing infrastructure (e.g., existing mains, services, meters, and hydrants)  | Cause 42743 DSIC-1 (December 2004)                      |
| IN           | Indiana-American Water  | Water             | Distribution System Improvement Charge  | Replacement of non-revenue producing infrastructure (e.g., existing mains, services, meters, and hydrants)  | Cause 42351 DSIC-1 (February 2003)                      |
| IN           | Indianapolis Power & Light  | Electric          | Environmental Compliance Cost Recovery  | Miscellaneous environmental projects  | Cause 42170 (November 2002)                             |
| IN           | Northern Indiana Public Service   | Electric          | Environmental Cost Recovery Mechanism   | Miscellaneous environmental projects  | Cause 42150 (November 2002)                             |
| IN           | Northern Indiana Public Service   | Electric          | Transmission, Distribution & Storage System Improvement Charge                              | Investments to maintain the capacity deliverability of system and replacement of aging infrastructure, economic development   | Cause 44370 and 44371 (February 2014)                   |
| IN           | Northern Indiana Public Service   | Gas               | Distribution System Improvement Charge  | Gas system deliverability and system integrity projects, rural main extensions  | Cause 44403 TDSIC 1 (January 2015)                      |
| IN           | Utility Center Inc.   | Water             | Distribution System Improvement Charge  | Replacement of non-revenue producing infrastructure (e.g., existing mains, services, meters, and hydrants)  | Docket 42416 DSIC-1 (June 2003)                         |
| IN           | Vectren Energy Delivery (Indiana Gas and Southern Indiana Gas & Electric)   | Gas               | Compliance and System Improvement Adjustment  | System and pressure improvements, storage operations, instrumentation and communications equipment, public improvement projects, service replacements, and economic development   | Cause 44429 (August 2014)                               |
| KS           | Atmos Energy  | Gas               | Gas System Reliability Surcharge  | Replacement of mains, valves, service lines, regulator stations, vaults, other pipeline components or relocations   | Docket 10-ATMG-133-TAR (December 2009)                  |
| KS           | Black Hills Energy (Aquila)   | Gas               | Gas System Reliability Surcharge  | Replacement of mains, valves, service lines, regulator stations, vaults, other pipeline components or relocations   | Docket 08-AQLG-852-TAR (July 2008)                      |
| KS           | Kansas Gas Service  | Gas               | Gas System Reliability Surcharge  | Replacement of mains, valves, service lines, regulator stations, vaults, other pipeline components or relocations   | Docket 10-KGSG-155-TAR (December 2009)                  |
| KS           | Midwest Energy  | Gas               | Gas System Reliability Surcharge  | Replacement of mains, valves, service lines, regulator stations, vaults, other pipeline components or relocations   | Docket 09-MDWE-722-TAR (May 2009)                       |
| KY           | Atmos Energy  | Gas               | Pipe Replacement Program Rider  | Replacement of bare steel service lines, curb valves, meter loops, and mandated relocations   | Docket 2009-00354 (May 2010)                            |
| KY           | Columbia Gas  | Gas               | Advanced Main Replacement Rider   | Replacement of cast iron and bare steel mains and services  | Docket 2009-00141 (September 2009)                      |
| KY           | Delta Natural Gas   | Gas               | Pipe Replacement Program Surcharge  | Replacement of bare steel pipe, service lines, curb valves, meter loops, and mandated pipe relocations  | Case 2010-00116 (October 2010)                          |
| KY           | Kentucky Power  | Electric          | Environmental Cost Recovery Surcharge   | Miscellaneous environmental projects  | Docket 2002-00169 (March 2003)                          |
| KY           | Kentucky Utilities  | Electric          | Environmental Cost Recovery Surcharge   | Miscellaneous environmental projects  | Case 93-465 (July 1994)                                 |
| KY           | Louisville Gas & Electric   | Electric          | Environmental Cost Recovery Surcharge   | Miscellaneous environmental projects  | Case 94-332 (April 1995)                                |
| KY           | Louisville Gas & Electric   | Gas               | Gas Line Tracker  | Replacement and transfer of ownership of customer owned service risers  | Case 2012-00222 (December 2012)                         |
| LA           | Cleco Power   | Electric          | Infrastructure and Incremental Costs Recovery   | Projects to be determined in subsequent filings to Commission   | Docket U-30689 and U-32779 (October 2010 and June 2014) |
| LA           | Entergy Gulf States Louisiana   | Electric          | Formula Rate Plan-3   | Acquisition of generating facility, new generating facility or refurbishment of existing generating facility if the revenue requirement related to the project exceeds \$10 million   | Docket U-32707 (December 2013)                          |
| LA           | Entergy Louisiana   | Electric          | Formula Rate Plan 7   | Cost of Ninemile 6 natural gas generating facility; New generating facility, acquisition of a generating facility, or refurbishment of existing generating facility if the revenue requirement related to the project exceeds \$10 million  | Docket U-32708 and 31971 (January 2014 and April 2012)  |
| MA           | Bay State Gas   | Gas               | Targeted Infrastructure Recovery Factor   | Replacement of bare steel mains and services  | DPU 09-30   |
| MA           | Bay State Gas   | Gas               | Gas System Enhancement Adjustment Factor  | Replacement of non-cathodically protected steel, cast iron, and wrought iron mains and associated services, service tie-ins, encroached pipe, and meters  | DPU 14-134  |
| MA           | Berkshire Gas   | Gas               | Gas System Enhancement Adjustment Factor  | Replacement of non-cathodically protected steel, cast iron mains and associated services, encroached pipe, and meter sets composed of non-cathodically protected steel, cast iron or copper   | DPU 14-131  |
| MA           | Fitchburg Gas & Electric Light  | Gas               | Gas System Enhancement Adjustment Factor  | Replacement of cast main and unprotected steel mains and services and encroached pipe   | DPU 14-130  |

Table 2 continued

| Jurisdiction | Company Name                                      | Services Included | Tracker Name  | Eligible Investments   | Case Reference   |
|--------------|---|-------------------|---|--|--|
| MA           | Massachusetts Electric                            | Electric          | Net CapEx Factor  | Potentially all distribution investments   | DPU 09-39  |
| MA           | Massachusetts Electric                            | Electric          | Solar Cost Adjustment Provision   | Solar generation   | DPU 09-38  |
| MA           | Massachusetts Electric                            | Electric          | Smart Grid Adjustment Provision   | Pilot smart grid investments including AMI, high speed communications network, in-home energy management devices, distribution automation, advanced capacitor control, advanced grid monitoring, remote fault indicators | DPU 11-129   |
| MA           | Nantucket Electric                                | Electric          | Solar Cost Adjustment Provision   | Solar generation   | DPU 09-38  |
| MA           | Nantucket Electric                                | Electric          | Smart Grid Adjustment Provision   | Pilot smart grid investments including AMI, high speed communications network, in-home energy management devices, distribution automation, advanced capacitor control, advanced grid monitoring, remote fault indicators | DPU 11-129   |
| MA           | National Grid (Boston-Essex Gas and Colonial Gas) | Gas               | Targeted Infrastructure Recovery Factor   | Replacement of bare steel, cast iron, and wrought iron mains, services, meters, meter installations, and house regulators  | DPU 10-55  |
| MA           | National Grid (Boston-Essex Gas and Colonial Gas) | Gas               | Gas System Enhancement Adjustment Factor  | Replacement of non-cathodically protected steel, cast iron, and wrought iron mains and associated services, inside services, service tie-ins, encroached pipe, and meters  | DPU 14-132   |
| MA           | New England Gas                                   | Gas               | Targeted Infrastructure Recovery Factor   | Replacement of non-cathodically protected steel mains and services and small diameter cast-iron and wrought iron   | DPU 10-114   |
| MA           | New England Gas                                   | Gas               | Gas System Enhancement Adjustment Factor  | Replacement of non-cathodically protected steel, cast iron, and wrought iron mains and associated services, inside services, service tie-ins, encroached pipe, and meters  | DPU 14-133   |
| MA           | NSTAR Electric                                    | Electric          | Capital Projects Scheduling List  | Stray voltage inspection survey and remediation program; double pole inspections, replacements, and restorations; and manhole inspection, repair, and upgrade  | DTE 05-85 and DPU 10-70-B                                |
| MA           | NSTAR Electric                                    | Electric          | Smart Grid Adjustment Factor  | Smart grid pilot   | DPU-09-33  |
| MA           | Western Massachusetts Electric                    | Electric          | Solar Program Cost Adjustment   | Solar generation   | DPU 09-05  |
| MD           | Baltimore Gas & Electric                          | Electric          | Electric Reliability Investment Surcharge   | Upgrades to improve poorest performing feeders, selective undergrounding, expanded recloser development on 13kV and 34 kV lines, diverse routing of 34 kV supply circuits  | Case 9326 (December 2013)                                |
| MD           | Baltimore Gas & Electric                          | Gas               | Strategic Infrastructure Development and Enhancement Program                            | Replacement of bare steel mains and services, cast iron mains, copper services, and pre-1982 plastic "Ski Bar" risers  | Case 9331 (January 2014)                                 |
| MD           | Columbia Gas of Maryland                          | Gas               | Strategic Infrastructure Development and Enhancement Program                            | Replacement of bare steel and cast iron mains and bare steel services  | Case 9332 (August 2014)                                  |
| MD           | Delmarva Power & Light                            | Electric          | Grid Resiliency Charge  | Feeder hardening   | Case 9317 (September 2013)                               |
| MD           | Potomac Electric Power                            | Electric          | Grid Resiliency Charge  | Feeder hardening   | Case 9311 (July 2013)                                    |
| MD           | Washington Gas Light                              | Gas               | Strategic Infrastructure Development and Enhancement Program Rider                      | Replacement of bare and unprotected steel mains and services, targeted copper and pre-1975 plastic services, mechanically coupled pipe main and services, and cast iron mains  | Case 9335 (May 2014)                                     |
| ME           | Central Maine Power                               | Electric          | Customer Relationship Management & Billing Rate Adjustment                              | Customer relationship management & billing system replacement  | Docket 2015-00040 (October 2015)                         |
| ME           | Maine Water Company                               | Water             | Water Infrastructure Charge   | Replacement of stationary physical plant assets needed to operate a water system   | Various orders separately issued for operating divisions |
| ME           | Northern Utilities                                | Gas               | Targeted Infrastructure Recovery Adjustment   | Cast iron, bare steel, and unprotected coated steel mains and services replacements, replacement of farm tap regulators  | Docket 2013-00133 (December 2013)                        |
| MI           | Consumers Energy                                  | Gas               | Enhanced Infrastructure Replacement Program   | Cast iron replacements   | Case U-17643 (January 2015)                              |
| MI           | Michigan Consolidated Gas (now DTE Gas)           | Gas               | Infrastructure Recovery Mechanism   | Replacement of cast iron mains, replacement of indoor meters with outdoor meters, pipeline integrity projects designed to comply with federal and state safety standards   | Case U-16999 (April 2013)                                |
| MI           | SEMCO Gas   | Gas               | Main Replacement Rider  | Replacement of cast iron and unprotected steel mains and service lines   | Case U-16169 and U-17824 (January 2011 and June 2015)    |
| MN           | Interstate Power & Light                          | Electric          | Renewable Energy Recovery Adjustment  | Renewable generation   | Docket M-10-312 (December 2013)                          |
| MN           | Minnesota Power                                   | Electric          | Arrowhead Regional Emission Abatement Rider   | Miscellaneous environmental projects   | Docket M-05-1678 (June 2006)                             |
| MN           | Minnesota Power                                   | Electric          | Transmission Cost Recovery Rider  | Incremental transmission investment  | Docket M-07-965 (December 2007)                          |
| MN           | Minnesota Power                                   | Electric          | Renewable Resource Rider  | Renewable generation   | Docket M-10-273 (July 2010)                              |
| MN           | Minnesota Power                                   | Electric          | Rider for Boswell Unit 4 Emission Reduction   | Miscellaneous environmental projects   | Docket M-12-920 (November 2013)                          |
| MN           | Northern States Power (Xcel Energy)               | Electric          | Metropolitan Emissions Reduction Project (later called Environmental Improvement Rider) | Miscellaneous environmental projects   | Docket M-02-633 (March 2004)                             |
| MN           | Northern States Power (Xcel Energy)               | Electric          | Transmission Cost Recovery Rider  | Incremental transmission investment  | Docket M-06-1103 (November 2006)                         |
| MN           | Northern States Power (Xcel Energy)               | Electric          | Renewable Energy Standard Cost Recovery Rider   | Renewable generation   | M-07-872 (March 2008)                                    |
| MN           | Northern States Power (Xcel Energy)               | Gas               | State Energy Policy Rider   | Cast iron replacements   | Docket M-08-261 (November 2008)                          |
| MN           | Northern States Power (Xcel Energy)               | Electric          | Mercury Cost Recovery Rider   | Miscellaneous environmental projects   | Docket M-09-847 (November 2009)                          |
| MN           | Otter Tail Power                                  | Electric          | Renewable Resource Cost Recovery Rider  | Renewable generation   | Docket M-08-119 (August 2008)                            |
| MN           | Otter Tail Power                                  | Electric          | Transmission Cost Recovery Rider  | Incremental transmission investment  | Docket M-09-881 (January 2010)                           |
| MO           | AmerenUE  | Gas               | Infrastructure System Replacement Surcharge   | Replacement of mains, valves, service lines, regulator stations, vaults, other pipeline components or relocations  | Case GT-2008-0184 (February 2008)                        |
| MO           | Atmos Energy                                      | Gas               | Infrastructure System Replacement Surcharge   | Replacement of mains, valves, service lines, regulator stations, vaults, other pipeline components or relocations  | Docket GO-2009-0046 (October 2008)                       |
| MO           | Laclede Gas                                       | Gas               | Infrastructure System Replacement Surcharge   | Replacement of mains, valves, service lines, regulator stations, vaults, other pipeline components or relocations  | Docket GR-2007-0208 (July 2007)                          |
| MO           | Missouri American Water                           | Water             | Infrastructure System Replacement Surcharge   | Replacement of mains, associated valves and hydrants, main cleaning and refining projects  | Case WO-2004-0116 (December 2003)                        |
| MO           | Missouri Gas Energy                               | Gas               | Infrastructure System Replacement Surcharge   | Replacement of mains, valves, service lines, regulator stations, vaults, other pipeline components or relocations  | Docket GR-2009-0355 (February 2010)                      |

Table 2 continued

| Jurisdiction | Company Name                            | Services Included | Tracker Name  | Eligible Investments   | Case Reference  |
|--------------|---|-------------------|---|--|---|
| MS           | Atmos Energy                            | Gas               | Supplemental Growth Rider   | Extraordinary service expansions to new industrial customers for economic development  | Docket 2013-UN-23 (July 2013)   |
| MS           | Centerpoint Energy                      | Gas               | Supplemental Growth Rider   | Extraordinary service expansions to new commercial and industrial customers for economic development   | Docket 13-UN-214 (October 2013)                                       |
| MS           | Mississippi Power                       | Electric          | Environmental Compliance Overview Plan Rate                         | Miscellaneous environmental projects   | Docket 92-UA-0058 and 92-UN-0059 (July 1992)                          |
| MT           | Northwestern Energy                     | Electric          | NA - Amounts recovered through electric supply service rates        | Generation   | Docket D.2008.6.69 (November 2008)                                    |
| MT           | Northwestern Energy                     | Gas               | Natural Gas Supply Tracker  | Battle Creek natural gas production resources  | Docket D2012.3.25 (November 2012)                                     |
| NC           | Aqua North Carolina                     | Water             | Water System Improvement Charge                                     | Replacement of distribution system mains, valves, services, meters, and hydrants, main extensions, projects to comply with primary drinking water standards, unreimbursed facility relocation costs due to highways  | Docket W-218, Sub 363 (May 2014)                                      |
| NC           | Aqua North Carolina                     | Water             | Sewer System Improvement Charge                                     | Replacement of pumps, motors, blowers, and other mechanical equipment, collection main extensions designed to implement solutions to wastewater problems, improvements necessary to reduce inflow and infiltration to the collection systems as required by state and federal law and regulations, unreimbursed costs of highway relocations | Docket W-218, Sub 363 (May 2014)                                      |
| NC           | Carolina Water Service                  | Water             | Water System Improvement Charge                                     | Replacement of distribution system mains, valves, services, meters, and hydrants, main extensions, projects to comply with primary drinking water standards, unreimbursed facility relocation costs due to highways  | Docket W-354, Sub 336 (March 2014)                                    |
| NC           | Carolina Water Service                  | Water             | Sewer System Improvement Charge                                     | Replacement of pumps, motors, blowers, and other mechanical equipment, collection main extensions designed to implement solutions to wastewater problems, improvements necessary to reduce inflow and infiltration to the collection systems as required by state and federal law and regulations, unreimbursed costs of highway relocations | Docket W-354, Sub 336 (March 2014)                                    |
| NC           | Piedmont Natural Gas                    | Gas               | Integrity Management Rider  | Investments driven by federal pipeline safety and integrity requirements   | Docket G-9, Sub 631 (December 2013)                                   |
| ND           | Montana-Dakota Utilities                | Electric          | Environmental Cost Recovery Tariff                                  | Miscellaneous environmental projects   | Case PU-13-85 (December 2013)   |
| ND           | Montana-Dakota Utilities                | Electric          | Generation Resource Recovery Rider Tariff                           | New Generation   | Case PU-14-108 (August 2014)  |
| ND           | Northern States Power- MN               | Electric          | Transmission Cost Rider   | Transmission projects  | Case PU-12-813 (February 2014)  |
| ND           | Northern States Power- MN               | Electric          | Renewable Energy Rider  | North Dakota based renewable generation  | Case PU-12-813 (February 2014)  |
| ND           | Otter Tail Power                        | Electric          | Renewable Resource Rider  | Renewables   | Case PU-06-466 (May 2008)   |
| ND           | Otter Tail Power                        | Electric          | Transmission Facility Cost Recovery Tariff                          | Transmission investments required to serve retail customers  | Case PU-11-682 (April 2012)   |
| ND           | Otter Tail Power                        | Electric          | Environmental Cost Recovery Tariff                                  | Miscellaneous environmental projects   | Case PU-13-84 (December 2013)   |
| NE           | Black Hills Nebraska Gas Utility        | Gas               | Infrastructure System Replacement Recovery Charge                   | Non-revenue increasing projects to replace existing assets   | Application NG-0074   |
| NE           | SourceGas Distribution                  | Gas               | Pipeline Replacement Charge   | Projects entering service before May 2014 that are installed to comply with safety requirements as replacements for existing facilities, projects that will extend the useful life of existing assets or enhance pipeline integrity, facility relocations  | Application NG-0072 (June 2013)                                       |
| NE           | SourceGas Distribution                  | Gas               | System Safety and Integrity Rider                                   | Projects entering service after April 2014 that comply with federal regulations including transmission and distribution integrity management plans or are facility relocations costing \$20,000 or more  | Application NG-0078 (October 2014)                                    |
| NH           | Aquarion Water of New Hampshire         | Water             | Water Infrastructure and Conservation Adjustment Charge             | Projects to upgrade or replace non-revenue producing assets including main, valve, and hydrant replacement, main cleaning and relining, and non-reimbursable relocations   | Docket DW 08-098 (September 2009)                                     |
| NH           | Energy North                            | Gas               | Cast Iron/Bare Steel Replacement Program                            | Replacement of cast iron and bare steel pipe   | Docket DG-107 (June 2007)   |
| NH           | Granite State Electric                  | Electric          | Reliability Enhancement Plan Capital Investment Allowance           | Feeder hardening and asset replacement   | Docket DG-107 (June 2007)   |
| NH           | Public Service Company of New Hampshire | Electric          | Energy Service  | Miscellaneous environmental projects   | DE 11-250 (April 2012)  |
| NH           | Public Service Company of New Hampshire | Electric          | Reliability Enhancement Plan  | Reliability improvements   | DE 09-035, DE 11-250, and DE 14-238 (June 2015)                       |
| NJ           | Elizabethtown Gas                       | Gas               | Elizabethtown Natural Gas Distribution Utility Reinforcement Effort | System hardening   | Docket GO13090826 (July 2014)   |
| NJ           | New Jersey American Water               | Water             | Distribution System Improvement Charge                              | Incremental non-revenue water main replacement, rehabilitation, or mandated relocation projects, service line replacements, valve and hydrant replacement  | Docket WR12070669 (October 2012)                                      |
| NJ           | New Jersey Natural Gas                  | Gas               | New Jersey Reinvestment in System Enhancement                       | Storm hardening projects   | Docket GR13090828 (July 2014)   |
| NJ           | Public Service Electric and Gas         | Electric          | Solar Generation Investment Program                                 | Solar generation   | Docket EO09020125 (August 2009)                                       |
| NJ           | Public Service Electric and Gas         | Electric & Gas    | Capital Infrastructure Investment Program                           | Electric: reliability upgrades & feeder replacement, Gas: replacement of cast iron & bare steel mains and services   | Dockets GO09010050, EO11020088, GO10110862 (April 2009 and July 2011) |
| NJ           | Public Service Electric and Gas         | Electric & Gas    | Energy Strong Adjustment Mechanism                                  | Electric: substation flood mitigation, grid reconfiguration strategies, and smart grid; Gas: Metering and regulating station flood mitigation, replacement of utilization pressure cast iron in flood prone areas  | Docket EO13020155, GO13020156 (May 2014)                              |
| NJ           | South Jersey Gas                        | Gas               | Storm Hardening and Reliability Program                             | Replacement of low pressure mains and services with high pressure mains and services, removal of regulator stations, installation of excess flow valves in coastal areas   | Docket GO13090814 (August 2014)                                       |
| NJ           | United Water New Jersey                 | Water             | Distribution System Improvement Charge                              | Repair, replace, and/or clean mains, replace valves, hydrants, and service lines   | Docket WR12080724 (October 2012)                                      |
| NV           | Southwest Gas                           | Gas               | Gas Infrastructure Replacement Mechanism                            | Early vintage pipe replacements, conversion of master metered customers to individual meters   | Docket 14-10002 (December 2014)                                       |



Table 2 continued

| Jurisdiction | Company Name                           | Services Included | Tracker Name                                    | Eligible Investments  | Case Reference   |
|--------------|--|-------------------|---|---|--|
| NY           | Corning Natural Gas                    | Gas               | Safety and Reliability Charge                   | Replacement of leak prone pipe and ancillary costs to maintain a safe and reliable system   | Case 11-G-0280 (October 2015)  |
| NY           | Keyspan Energy Long Island             | Gas               | Leak Prone Pipe Surcharge                       | Accelerated leak prone pipe removal program   | Case 12-G-0214 (December 2014 and March 2015)  |
| NY           | Long Island American Water             | Water             | System Improvement Charge                       | Iron removal, storage tank rehabilitation, suction well rehabilitation at selected plants, customer information system  | Case 11-W-0200 (March 2012)  |
| NY           | United Water New Rochelle              | Water             | Long Term Main Renewal Project                  | Cleaning and relining of mains  | Case 99-W-0948 (August 2000)   |
| NY           | United Water New York                  | Water             | Underground Infrastructure Renewal Program      | Replacement of infrastructure including mains, valves, services, meters, and hydrants   | Case 06-W-0131 (December 2006)   |
| NY           | United Water New York                  | Water             | New Water Supply Source Surcharge               | Projects to provide new sources of water in the short and long term   | Case 06-W-0131 (December 2006)   |
| OH           | Aqua Ohio                              | Water             | System Infrastructure Improvement Surcharge     | Replacement of service lines, mains, hydrants, valves, main extensions to resolve documented water supply problems  | Case 04-1824-WW-SIC (March 2005)   |
| OH           | Cleveland Electric Illuminating        | Electric          | Rider AMI                                       | Ohio Site Deployment  | Cases 09-1820-EL-ATA and 12-1230-EL-SSO  |
| OH           | Cleveland Electric Illuminating        | Electric          | Delivery Capital Recovery Rider                 | Distribution, subtransmission, general, and intangible plant not included in most recent rate case  | Case 10-388-EL-SSO (August 2010)   |
| OH           | Columbia Gas                           | Gas               | Infrastructure Replacement Program Rider        | Replacement of cast iron and bare steel mains & services, AMI   | Cases 08-0072-GA-AIR, 08-0073-GA-ALT, 08-0074-GA-AAM, and 08-0075-GA-AAM (December 2008); Case 09-1036-GA-RDR (April 2010) |
| OH           | Duke Energy Ohio                       | Gas               | Accelerated Main Replacement Program Rider      | Replacement of bare steel and cast iron mains and services and faulty risers  | 1478-GA-ALT, and 01-1539-GA-AAM (May 2002); 07-0589-GA-AIR 07-0590-GA-ALT 07-0591-GA-AAM (May 2008)                        |
| OH           | Duke Energy Ohio                       | Gas               | Advanced Utility Rider                          | Gas AMI   | Cases 07-0589-GA-AIR, 07-0590-GA-ALT, and 07-0591-GA-AAM (May 2008)  |
| OH           | Duke Energy Ohio                       | Electric          | Infrastructure Modernization Distribution Rider | Electric AMI  | Cases 08-920-EL-SSO and 08-921-EL-AAM and 08-922-EL-UNC and 08-923-EL-ATA (December 2008)                                  |
| OH           | Duke Energy Ohio                       | Electric          | Distribution Capital Investment Rider           | Distribution capital investments not recovered through other trackers   | Case 14-841-EL-SSO (April 2015)  |
| OH           | East Ohio Gas d/b/a Dominion East Ohio | Gas               | Pipeline Infrastructure Replacement Rider       | Bare steel and cast iron pipelines & faulty riser replacements  | Case 08-169-GA-ALT (October 2008)  |
| OH           | East Ohio Gas d/b/a Dominion East Ohio | Gas               | Automated Meter Reading Charge                  | AMR   | Cases 07-0829-GA-AIR and 06-1453-GA-UNC (October 2008); Case 09-38-GA-UNC (May 2009); Case 09-1875-GA-RDR (May 2010)       |
| OH           | Ohio American Water                    | Water             | System Improvement Charge                       | Non-revenue producing service lines, hydrants, mains, valves, main extensions that improve supply problems, main cleaning   | Case 05-577-WW-SIC (August 2005)   |
| OH           | Ohio Edison                            | Electric          | Rider AMI                                       | Ohio Site Deployment  | Cases 09-1820-EL-ATA and 12-1230-EL-SSO  |
| OH           | Ohio Edison                            | Electric          | Delivery Capital Recovery Rider                 | Distribution, subtransmission, general, and intangible plant not included in most recent rate case (filed in 2007)  | Case 10-388-EL-SSO (August 2010)   |
| OH           | Ohio Power                             | Electric          | Distribution Investment Rider                   | Net distribution capital additions since the date certain of most recent rate case not recovered through other riders   | Case 11-346-EL-SSO   |
| OH           | Ohio Power                             | Electric          | GridSMART Rider (Phase I)                       | Smart grid  | Case 08-917-EL-SSO and 08-918-EL-SSO (March 2009)  |
| OH           | Toledo Edison                          | Electric          | Rider AMI                                       | Ohio Site Deployment  | Cases 09-1820-EL-ATA and 12-1230-EL-SSO  |
| OH           | Toledo Edison                          | Electric          | Delivery Capital Recovery Rider                 | Power distribution, subtransmission, general, and intangible plant not included in most recent rate case (filed in 2007)  | Case 10-388-EL-SSO (August 2010)   |
| OH           | Vectren Energy Delivery                | Gas               | Distribution Replacement Rider                  | Replacement of cast iron and bare steel mains and services  | Cases 07-1081-GA-ALT, 07-1080-GA-AIR and 08-0632-GA-AAM (January 2009)   |
| OK           | Oklahoma Gas & Electric                | Electric          | System Hardening Recovery Rider                 | Undergrounding and other circuit hardening  | Cause PUD 20080387, Order 567670 (May 2009)  |
| OK           | Oklahoma Gas & Electric                | Electric          | Smart Grid Rider                                | Smart grid  | Cause PUD 201000029 (July 2010)  |
| OK           | Oklahoma Gas & Electric                | Electric          | Crossroads Rider                                | Crossroads Wind Farm  | Cause PUD 201000037 (July 2010)  |
| OK           | Public Service Company of Oklahoma     | Electric          | System Reliability Rider                        | Grid resiliency projects  | Cause PUD 201300202 (January 2014)   |
| OK           | Public Service Company of Oklahoma     | Electric          | Advanced Metering Infrastructure Tariff         | Advanced metering infrastructure deployment   | Cause PUD 201300217 (April 2015)   |
| OR           | Northwest Natural Gas                  | Gas               | System Integrity Program                        | Bare steel replacement, transmission integrity management program, distribution integrity management program  | Docket UM 1406, Order 09-067 (March 2009)  |
| OR           | PacifiCorp                             | Electric          | Renewable Adjustment Clause                     | Renewable generation  | Docket UM 1330 (December 2007)   |
| OR           | PacifiCorp                             | Electric          | Lake Side 2 Tariff Rider                        | Generation  | Docket UE 263, Order 13-474 (December 2013)  |
| OR           | PacifiCorp                             | Electric          | M2O Transmission Rider                          | Mona to Oquirrh transmission line only if line is placed into service within 6 months of May 31, 2013   | Docket UE 246, Orders 12-493 and 13-195 (December 2012 and May 2013)   |
| OR           | Portland General Electric              | Electric          | Renewable Adjustment Clause                     | Renewable generation  | Docket UM 1330 (December 2007)   |
| PA           | Columbia Gas                           | Gas               | Distribution System Improvement Charge          | Replacement of cast iron, bare steel, and first generation plastic mains and services, install excess flow valves, install or relocate automated meters, and replace risers, meter bars, and service regulators | P-2012-2338282 (March 2013)  |
| PA           | Columbia Water Company                 | Water             | Distribution System Improvement Charge          | Non-expense reducing, non-revenue producing infrastructure replacement projects (e.g., mains, meters, services)   | Docket P-00021979  |
| PA           | Duquesne Light                         | Electric          | Smart Meter Charge Rider                        | AMI   | Docket M-2009-2123948 (April 2010)   |
| PA           | Equitable Gas                          | Gas               | Distribution System Improvement Charge          | Non-expense reducing, non-revenue producing infrastructure replacement projects (e.g., mains, meters, services)   | Docket P-2013-2342745 (July 2013)  |
| PA           | Metropolitan Edison                    | Electric          | Smart Meters Technologies Charge                | AMI   | Docket M-2009-2123950 (April 2010)   |

Table 2 continued

| Jurisdiction | Company Name                                | Services Included | Tracker Name   | Eligible Investments  | Case Reference  |
|--------------|---|-------------------|--|---|---|
| PA           | PECO  | Electric          | Smart Meter Cost Recovery Rider                              | AMI   | Docket M-2009-2123944 (April 2010)                          |
| PA           | PECO  | Electric          | Distribution System Improvement Charge                       | Storm hardening and resiliency measures, underground cable replacement, substation retirements, and facility relocations          | Docket P-2015-2471423 (October 2015)                        |
| PA           | PECO  | Gas               | Distribution System Improvement Charge                       | Non-expense reducing, non-revenue producing infrastructure replacement projects (e.g., mains, meters, services)                   | Docket P-2013-2347340 (September 2015)                      |
| PA           | Pennsylvania Electric                       | Electric          | Smart Meters Technologies Charge                             | AMI   | Docket M-2009-2123950 (April 2010)                          |
| PA           | Pennsylvania Power                          | Electric          | Smart Meters Technologies Charge                             | AMI   | Docket M-2009-2123950 (April 2010)                          |
| PA           | Pennsylvania-American Water                 | Water             | Distribution System Improvement Charge                       | Non-expense reducing, non-revenue producing infrastructure replacement projects (e.g., mains, meters, services)                   | Docket P-000961031 (August 1996)                            |
| PA           | Peoples Natural Gas                         | Gas               | Distribution System Improvement Charge                       | Non-expense reducing, non-revenue producing infrastructure replacement projects (e.g., mains, meters, services)                   | Docket P-2013-2344596 (May 2013)                            |
| PA           | Peoples TWP                                 | Gas               | Distribution System Improvement Charge                       | Non-expense reducing, non-revenue producing infrastructure replacement projects (e.g., mains, meters, services)                   | Docket P-2013-2344595 (May 2013)                            |
| PA           | Philadelphia Gas Works                      | Gas               | Distribution System Improvement Charge                       | Non-expense reducing, non-revenue producing infrastructure replacement projects (e.g., mains, meters, services)                   | Docket P-2012-2337737 (April 2013)                          |
| PA           | Philadelphia Suburban Water                 | Water             | Distribution System Improvement Charge                       | Non-expense reducing, non-revenue producing infrastructure replacement projects (e.g., mains, meters, services)                   | Docket P-00961035 (August 1996)                             |
| PA           | PPL Electric Utilities                      | Electric          | Act 129 Compliance Rider                                     | AMI   | Docket M-2009-2123945 (January 2010)                        |
| PA           | PPL Electric Utilities                      | Electric          | Distribution System Improvement Charge                       | Non-expense reducing, non-revenue producing infrastructure replacement projects (e.g., poles, wires)                              | Docket P-2012-2325034 (May 2013)                            |
| PA           | UGI Central Penn Gas                        | Gas               | Distribution System Improvement Charge                       | Non-expense reducing, non-revenue producing infrastructure replacement projects (e.g., mains, meters, services)                   | Docket P-2013-2398835 (September 2014)                      |
| PA           | UGI Penn Natural Gas                        | Gas               | Distribution System Improvement Charge                       | Non-expense reducing, non-revenue producing infrastructure replacement projects (e.g., mains, meters, services)                   | Docket P-2013-2397056 (September 2014)                      |
| PA           | West Penn Power                             | Electric          | Smart Meter Surcharge  | AMI   | Docket M-2009-2123951 (June 2011)                           |
| RI           | Narragansett Electric (electric operations) | Electric          | Electric Infrastructure, Safety, and Reliability Plan Factor | Replacements and load growth  | Docket 4218 (December 2011)                                 |
| RI           | Narragansett Electric (gas operations)      | Gas               | Gas Infrastructure, Safety, and Reliability Plan Factor      | Previous accelerated capital replacement program investments plus main and service replacements and reliability investments       | Docket 4219 (September 2011)                                |
| SC           | South Carolina Electric & Gas               | Electric          | NA   | Nuclear generation  | Docket 2008-196-E (March 2009)                              |
| SD           | Black Hills Power                           | Electric          | Environmental Improvement Adjustment tariff                  | Miscellaneous environmental projects  | Docket EL11-001   |
| SD           | Black Hills Power                           | Electric          | Phase in plan rate   | Gas-fired generation  | Docket EL12-062 (September 2013)                            |
| SD           | Northern States Power- MN                   | Electric          | Environmental Cost Recovery Tariff                           | Miscellaneous environmental projects  | Docket EL07-026 (January 2009)                              |
| SD           | Northern States Power- MN                   | Electric          | Transmission Cost Recovery Tariff                            | Transmission  | Docket EL07-007 (January 2009)                              |
| SD           | Northern States Power- MN                   | Electric          | Infrastructure Rider   | Generation  | Docket EL 12-046 (April 2013)                               |
| SD           | Otter Tail Power                            | Electric          | Transmission Cost Recovery Tariff                            | Retail sales portion of specific transmission projects  | Docket EL 10-015 (November 2011)                            |
| SD           | Otter Tail Power                            | Electric          | Environmental Quality Cost Recovery Tariff                   | Miscellaneous environmental projects  | Docket EL 14-082 (December 2014)                            |
| TN           | Piedmont Natural Gas                        | Gas               | Integrity Management Rider                                   | Distribution and transmission integrity management planning as required by the US Department of Transportation                    | Docket 13-00118 (May 2014)                                  |
| TX           | AEP Texas Central                           | Electric          | Advanced Metering System Surcharge                           | AMI   | Docket 36928  |
| TX           | AEP Texas North                             | Electric          | Advanced Metering System Surcharge                           | AMI   | Docket 36928  |
| TX           | Atmos Energy Mid Tex                        | Gas               | Gas Reliability Infrastructure Program                       | Incremental investment in new and replacement pipe, pipeline integrity including mains replacement                                | Texas Utilities Code 104.301 and Gas Utilities Docket 9615  |
| TX           | Atmos Energy Pipelines                      | Gas               | Gas Reliability Infrastructure Program                       | Incremental investment in new and replacement pipe, pipeline integrity including mains replacement                                | Gas Utilities Dockets 9615 and 10640                        |
| TX           | Atmos Energy West Texas Division            | Gas               | Gas Reliability Infrastructure Program                       | Incremental investment in new and replacement pipe, pipeline integrity including mains replacement                                | Texas Utilities Code 104.301 and Gas Utilities Docket 9608  |
| TX           | Centerpoint Energy Entex - Houston Division | Gas               | Gas Reliability Infrastructure Program                       | Incremental investment in new and replacement pipe, pipeline integrity including mains replacement                                | Texas Utilities Code 104.301 and Gas Utilities Docket 10067 |
| TX           | Centerpoint Energy Houston Electric         | Electric          | Advanced Metering System Surcharge                           | AMI   | Docket 35620 (August 2008)                                  |
| TX           | Centerpoint Energy Houston Electric         | Electric          | Distribution Cost Recovery Factor                            | Change in net distribution rate base since last rate case   | Docket 44572 (August 2015)                                  |
| TX           | Oncor Electric Delivery                     | Electric          | Advanced Metering System Surcharge                           | AMI   | Docket 35718 (August 2008)                                  |
| TX           | Texas-New Mexico Power                      | Electric          | Advanced Metering System Surcharge                           | AMI   | Docket 38306 (July 2011)                                    |
| UT           | Questar Gas                                 | Gas               | Infrastructure Rate Adjustment Tracker                       | Replacement of aging high-pressure feeder lines   | Docket 09-057-16 (June 2010)                                |
| VA           | Appalachian Power                           | Electric          | Environmental & Reliability Cost Recovery Surcharge          | Miscellaneous environmental & reliability projects  | Docket PUE-2007-00069 (December 2007)                       |
| VA           | Appalachian Power                           | Electric          | Environmental Rate Adjustment Clause                         | Miscellaneous environmental projects  | Case PUE-2011-00035 (November 2011)                         |
| VA           | Appalachian Power                           | Electric          | Generation Rate Adjustment Clause                            | Dresden plant   | Docket PUE-2011-00036 (January 2012)                        |
| VA           | Atmos Energy                                | Gas               | Infrastructure Reliability and Replacement Adjustment        | Replacement of first generation plastic pipe and service lines and bare steel mains and services                                  | Case PUE-2012-00049 (August 2012)                           |
| VA           | Columbia Gas of Virginia                    | Gas               | SAVE Rider   | Replacement of bare steel and cast iron mains, some early plastic pipe, isolated bare steel services, and risers prone to failure | Case PUE-2011-00049 (November 2011)                         |
| VA           | Roanoke Gas Company                         | Gas               | SAVE Rider   | Replacement of cast iron mains, bare steel mains and services and pre-1973 plastic pipe   | Case PUE-2012-00030 (August 2012)                           |
| VA           | Virginia Electric Power                     | Electric          | Rider S  | Virginia City Hybrid Energy Center  | Case PUE-2007-00066 (March 2008)                            |
| VA           | Virginia Electric Power                     | Electric          | Rider R  | Bear Garden Generating Station  | Case PUE-2009-00017 (March 2010)                            |
| VA           | Virginia Electric Power                     | Electric          | Rider W  | Warren County Power Station   | Case PUE-2011-00042 (February 2012)                         |
| VA           | Virginia Electric Power                     | Electric          | Rider B  | Biomass conversions   | Case PUE-2011-00073 (March 2012)                            |
| VA           | Virginia Electric Power                     | Electric          | Rider BW   | Brunswick County Power Station (natural gas combined cycle generating station)  | Case PUE-2012-00128 (August 2013)                           |

Table 2 continued

| <b>Jurisdiction</b> | <b>Company Name</b>           | <b>Services Included</b> | <b>Tracker Name</b>                                   | <b>Eligible Investments</b>  | <b>Case Reference</b>  |
|---------------------|-------------------------------|--------------------------|---|--|--|
| VA                  | Virginia Natural Gas          | Gas                      | SAVE Rider  | Replacement of first generation plastic mains, cast and wrought iron mains, bare and ineffectively coated steel mains, and service lines installed prior to 1971 | Case PUE-2012-00012 (June 2012)  |
| VA                  | Washington Gas Light          | Gas                      | SAVE Rider  | Replacement of bare and unprotected steel services and mains, mechanically coupled pipe, copper services, cast iron main, and pre-1975 plastic services          | Cases PUE-2010-00087 and PUE-2012-00096 (April 2011 and November 2012) |
| WA                  | Cascade Natural Gas           | Gas                      | Pipeline Replacement Program Cost Recovery Mechanism  | Replacement of bare steel and poorly coated pipelines and distribution systems   | Docket PG-131838 (October 2013)  |
| WV                  | Appalachian Power             | Electric                 | Construction/765kW Surcharge                          | Generation, environmental  | Case 11-0274-E-GI (June 2011)  |
| WV                  | Monongahela Power             | Electric                 | Vegetation Management Surcharge                       | Capitalized distribution vegetation management expenses  | Case 14-0702-E-42T (February 2015)                                     |
| WV                  | Potomac Edison                | Electric                 | Vegetation Management Surcharge                       | Capitalized distribution vegetation management expenses  | Case 14-0702-E-42T (February 2015)                                     |
| WV                  | Wheeling Power                | Electric                 | Construction/765kW Surcharge                          | Generation, environmental  | Case 11-0274-E-GI (June 2011)  |
| WY                  | Black Hills Power             | Electric                 | Cheyenne Prairie Generating Station rate rider tariff | Construction of Cheyenne Prairie Generating Station  | Docket 20002-84-ET-12 (November 2012)                                  |
| WY                  | Cheyenne Light, Fuel, & Power | Electric                 | Cheyenne Prairie Generating Station rate rider tariff | Construction of Cheyenne Prairie Generating Station  | Docket 20003-123-ET-12 (November 2012)                                 |

### III. Relaxing the Link Between Revenue and System Use

Policymakers are increasingly interested in relaxing the link between the revenues utilities realize, and the kWh and kW of system use by customers. This reduces the financial attrition that results from slowing growth in system use (given legacy rate designs) more efficiently than frequent rate cases. In addition, utilities have more incentive to embrace DSM. Three approaches to relaxing the revenue/usage link are well established: lost revenue adjustment mechanisms (“LRAMs”), revenue decoupling, and fixed/variable pricing.

#### A. Lost Revenue Adjustment Mechanisms

LRAMs keep utilities whole for short-term losses in base rate revenues that are due to their DSM programs (and potentially also DG). Recovery usually is effected through a special rate rider. Estimates of load losses are needed.

LRAMs encourage utilities to embrace DSM that is eligible for LRAM treatment. They do not provide recovery for the revenue impact of external forces, like DSM programs managed by independent agencies, which slow load growth. Estimates of load savings from utility DSM can be complex and are sometimes controversial. The scope of DSM initiatives addressed by LRAMs is therefore frequently limited to those for which load impacts are easier to measure. When usage charges are high, the utility remains at risk for revenue fluctuations in volumes and peak load due to weather, local economic activity, and other volatile demand drivers.

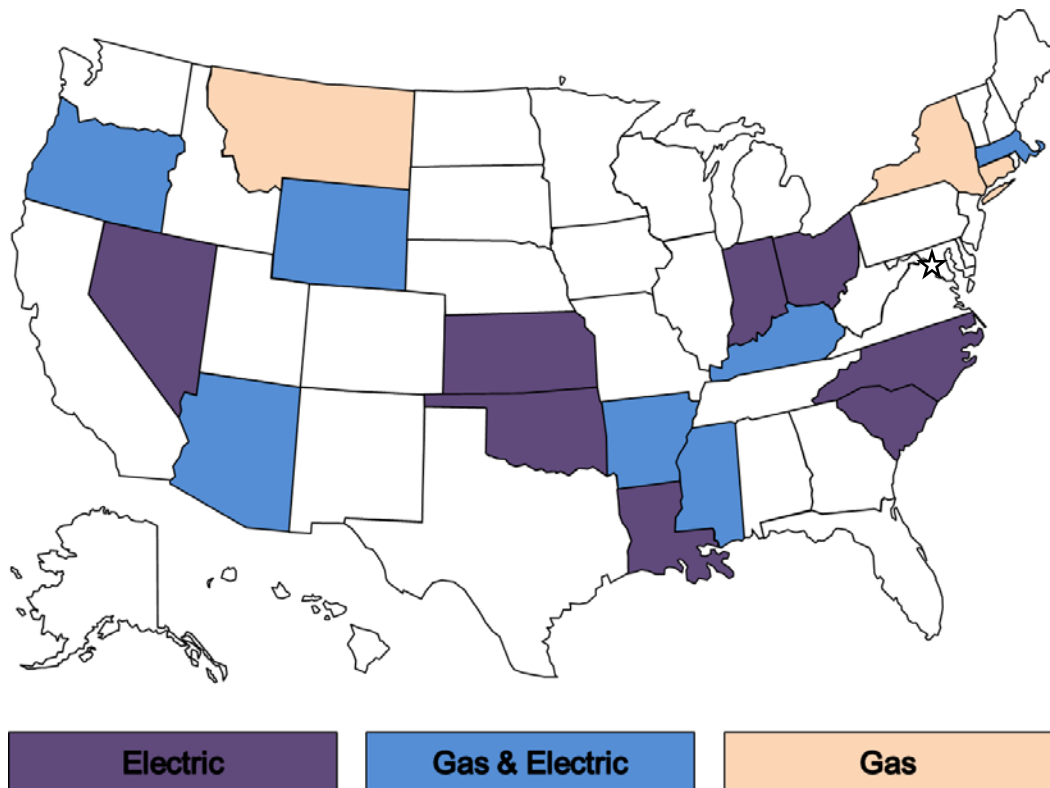
Precedents for LRAMs are detailed in Table 3 and Figure 4 below.<sup>3</sup> LRAMs are currently the most popular means of relaxing the link between revenue and system use in the US electric utility industry. Since our 2013 survey, LRAMs have been adopted for electric utilities in Arizona, Louisiana, and Mississippi. A few utilities have LRAMs that address DG. LRAMs are less popular for gas distributors since the declining average use they have typically experienced for many years is due chiefly to external forces that LRAMs don’t address. Some utilities have LRAMs for some services and revenue decoupling for others. In New York, for example, some natural gas distributors have decoupling for residential and commercial customers and LRAMs for some large load customers.

#### B. Revenue Decoupling

Revenue decoupling adjusts a utility’s rates periodically to help its actual revenue track its allowed revenue more closely. Most decoupling systems have two basic components: a revenue decoupling mechanism (“RDM”) and a revenue adjustment mechanism (“RAM”). The RDM tracks variances between actual and allowed revenue and adjusts rates to reduce them. The RAM escalates allowed revenue to provide relief for growing cost pressures.

<sup>3</sup> Some mechanisms similar to LRAMs are excluded from this survey.

Figure 4: Current LRAMs by State



RDMs can make true ups annually or more frequently. More frequent adjustments cause actual revenue to track allowed revenue more closely so that rate adjustments are smaller. The size of the rate adjustment that is permitted in a given year is sometimes capped. A “soft” cap permits utilities to defer for later recovery account balances that cannot be drawn down immediately. A “hard” cap does not.

RDMs vary in the scope of services to which they apply. Quite commonly, only revenues from residential and commercial business customers are decoupled. These customers account for a high share of a distributor’s base rate revenue and are often the primary focus of DSM programs. RDMs also vary in terms of the services for which revenues are pooled for true up purposes. In some plans all services are placed in the same “basket.” Other plans have multiple baskets, and these insulate customers of services in each basket from changes in revenue for services in other baskets.

Some RDMs are “partial” in the sense that they exclude from decoupling the revenue impact of certain kinds of demand fluctuations. For example, true ups are sometimes allowed only for the difference between allowed revenue and weather normalized actuals. An RDM that instead accounts for *all* sources of demand variance is called a “full” decoupling mechanism.

Table 3

**Current LRAM Precedents<sup>1</sup>**

| State | Company                          | Services       | Approval Date  | Case Reference                          |
|-------|----------------------------------|----------------|--|---|
| AR    | Arkansas Oklahoma Gas            | Gas            | June 2011  | Docket 07-077-TF, Order Number 30       |
| AR    | Centerpoint Energy Arkla         | Gas            | June 2011  | Docket 07-081-TF, Order Number 31       |
| AR    | Entergy Arkansas                 | Electric       | June 2011  | Docket 07-085-TF, Order Number 40       |
| AR    | Oklahoma Gas & Electric          | Electric       | June 2011  | Docket 07-075-TF, Order 26              |
| AR    | SourceGas Arkansas               | Gas            | June 2011  | Docket 07-078-TF, Order 26              |
| AR    | Southwestern Electric Power      | Electric       | June 2011  | Docket 07-082-TF, Orders 35 and 36      |
| AZ    | Arizona Public Service           | Electric       | May 2012   | Docket E-01345A-11-0224, Decision 73183 |
| AZ    | Tucson Electric Power            | Electric       | June 2013  | Docket E-01933A-12-0291; Decision 73912 |
| AZ    | UNS Electric                     | Electric       | September 2013   | Docket E-04204A-12-0504; Decision 74235 |
| AZ    | UNS Gas                          | Gas            | May 2012   | Docket G-04204A-11-0158 Decision 73142  |
| CT    | Southern Connecticut Gas         | Gas            | August 1995  | Docket 93-03-09                         |
| CT    | Yankee Gas Service               | Gas            | January 2012   | Docket 11-10-03                         |
| IN    | Duke Energy Indiana (PSI)        | Electric       | February 2010  | Cause 43374                             |
| IN    | Indiana-Michigan Power           | Electric       | September 2010   | Cause 43827                             |
| IN    | Northern Indiana Public Service  | Electric       | May 2011   | Cause 43618                             |
| IN    | Southern Indiana Gas & Electric  | Electric       | August 2011 (large commercial and industrials), June 2012 (residential and small commercial) | Causes 43938 and 43405 DSMA 9 S1        |
| KS    | Kansas Gas & Electric            | Electric       | January 2011   | Docket 10-WSEE-775-TAR                  |
| KS    | Westar Energy                    | Electric       | January 2011   | Docket 10-WSEE-775-TAR                  |
| KY    | Atmos Energy                     | Gas            | September 2009   | Case 2008-00499                         |
| KY    | Columbia Gas of Kentucky         | Gas            | October 2009   | Case 2009-00141                         |
| KY    | Delta Natural Gas                | Gas            | July 2008  | Docket 2008-00062                       |
| KY    | Duke Energy Kentucky             | Electric       | December 1995 and February 2005  | Cases 95-321 and 2004-00389             |
| KY    | Duke Energy Kentucky             | Gas            | February 2005  | Case 2004-00389                         |
| KY    | Kentucky Power                   | Electric       | December 1995  | Case 95-427                             |
| KY    | Kentucky Utilities               | Electric       | May 2001   | Case 2000-0459                          |
| KY    | Louisville Gas & Electric        | Electric & Gas | November 1993  | Case 93-150                             |
| LA    | Cleco Power                      | Electric       | October 2014   | Docket R-31106                          |
| LA    | Entergy Gulf States Louisiana    | Electric       | October 2014   | Docket R-31106                          |
| LA    | Entergy Louisiana                | Electric       | October 2014   | Docket R-31106                          |
| LA    | Southwestern Electric Power      | Electric       | October 2014   | Docket R-31106                          |
| MA    | All Electric distributors        | Electric       | July 2012  | D.P.U. 12-01A                           |
| MA    | Berkshire Gas                    | Gas            | October 1992   | D.P.U. 91-154                           |
| MA    | Commonwealth Gas d/b/a NSTAR Gas | Gas            | November 1994  | D.P.U. 94-128                           |

Table 3 (cont'd)

| State | Company   | Services       | Approval Date                        | Case Reference   |
|-------|---|----------------|--------------------------------------|--|
| MA    | NSTAR Electric  | Electric       | April 1992, June 1994, and June 2010 | D.P.U. 90-335, D.P.U. 94-2/3-CC, and D.P.U. 10-06                                    |
| MS    | Atmos Energy  | Gas            | August 2014                          | Docket 2014-UA-017   |
| MS    | Centerpoint Energy  | Gas            | August 2014                          | Docket 2014-UA-007   |
| MS    | Entergy Mississippi   | Electric       | September 2014                       | Docket 2009-UN-064   |
| MS    | Mississippi Power   | Electric       | March 2015                           | Docket 2014-UN-10  |
| MT    | Montana-Dakota Utilities  | Gas            | October 2006                         | Docket D2005.10.156; Order 6697c   |
| NC    | Duke Energy Carolinas   | Electric       | February 2010                        | Docket E-7, Sub 831  |
| NC    | Progress Energy Carolinas (Carolina Power & Light)                              | Electric       | November 2009                        | Docket E-2, Sub 931  |
| NC    | Virginia Electric Power   | Electric       | October 2011                         | Docket E-22, Sub 464   |
| NV    | Nevada Energy   | Electric       | May 2011                             | Docket 10-10024  |
| NV    | Sierra Pacific Power  | Electric       | May 2011                             | Docket 10-10025  |
| NY    | Keyspan Long Island   | Gas            | December 2009                        | Case 06-G-1186; Currently effective for all customers not in RDM                     |
| NY    | Keyspan New York  | Gas            | December 2009                        | Case 06-G-1185; Currently effective for all customers not in RDM                     |
| OH    | American Electric Power (Ohio Power, Columbus Southern Power)                   | Electric       | May 2010                             | Docket 09-1089-EL-POR; Effective for classes not included in RDM                     |
| OH    | Dayton Power & Light  | Electric       | June 2009                            | Docket 08-1094-EL-SSO  |
| OH    | Duke Energy Ohio (Cincinnati Gas & Electric)                                    | Electric       | July 2007 and August 2012            | Dockets 06-0091-EL-UNC and 11-4393-EL-RDR; Effective for classes not included in RDM |
| OH    | First Energy Ohio (Cleveland Electric Illuminating, Toledo Edison, Ohio Edison) | Electric       | March 2009                           | Docket 08-935-EL-SSO   |
| OK    | Empire District Electric  | Electric       | November 2009                        | Cause 200900146<br>Order 571326  |
| OK    | Oklahoma Gas & Electric   | Electric       | July 2008                            | Cause 200800059<br>Order 556179  |
| OK    | Public Service of Oklahoma  | Electric       | January 2010                         | Cause PUD 200900196; Order 572836  |
| OR    | Cascade Natural Gas   | Gas            | April 2006                           | Order 06-191; UG 167 Effective for classes not included in RDM                       |
| OR    | Portland General Electric   | Electric       | September 2001                       | Order 01-836; UE 79 Effective for classes not included in RDM                        |
| OR    | Avista Utilities  | Gas            | December 1993                        | Order 93-1881  |
| SC    | Duke Energy Carolinas   | Electric       | January 2010                         | Docket 2009-226-E<br>Order 2010-79   |
| SC    | Progress Energy Carolinas   | Electric       | June 2009                            | Docket 2008-251-E<br>Order 2009-373  |
| SC    | South Carolina Electric & Gas   | Electric       | July 2010                            | Docket 2009-261-E, Order 2010-472  |
| WY    | Cheyenne Light, Fuel, and Power   | Electric & Gas | September 2011                       | Dockets 20003-108-EA-10 and 30005-140-GA-10  |
| WY    | Montana-Dakota Utilities  | Electric       | January 2007                         | Docket 20004-65-ET-06  |

<sup>1</sup> LRAMs listed here include only those mechanisms that compensate utilities for actual revenues lost due to DSM and DG.

The great majority of decoupling systems have a RAM since, if allowed revenue is static, the utility will experience financial attrition as its costs inevitably rise. Utilities that do not have RAMs in their decoupling systems often file frequent rate cases or are allowed to use capital cost trackers to address attrition. The more important issue in a proceeding to consider decoupling is therefore the design of the RAM rather than the need for one.

Most RAMs escalate allowed revenue only for customer growth. Escalation for customer growth is sensible because it is an important driver of cost and also highly correlated with other drivers such as peak demand. The need for rate cases is thereby reduced but is rarely eliminated since cost has other drivers such as input price inflation. When RAMs are escalated only for customer growth, utilities usually retain the freedom to file rate cases to address other cost factors and often do. Some RAMs are “broad-based” in the sense that they provide enough revenue growth to compensate the utility for several kinds of cost pressures. This can materially reduce the need for rate cases and provide a foundation for a multiyear rate plan.

Revenue decoupling compensates utilities for declining average use even if it is driven in part by external forces such as independently administered DSM programs. The lost revenue disincentive is removed for a wide array of utility initiatives to encourage DSM without requiring load impact calculations or rate designs that discourage DSM. To the extent that recovery of allowed revenue is ensured, utilities can use rate designs with usage charges more aggressively to foster DSM. This makes environmental intervenors strong supporters of decoupling. Controversy over billing determinants in rate cases with future test years is reduced.

Revenue decoupling is a popular means of relaxing the link between a utility’s revenue and customers’ kWh consumption. States that have tried gas and electric revenue decoupling are indicated on the maps below in Figures 5a and 5b, respectively. Revenue decoupling precedents in the United States and Canada are detailed in Table 4. In the electric utility industry, decoupling has been favored in states that strongly support DSM. Since our 2013 survey, decoupling has been adopted for electric utilities in Connecticut, Maine, Minnesota, and Washington state. Decoupling is the most widespread means of relaxing the revenue/usage link for gas distributors. This reflects the fact that gas distributors often experience declining average use and that this has been driven chiefly by external forces. Table 4 indicates the kinds of RAMs chosen in approved decoupling systems. Note that RAMs for electric utilities are frequently broad-based.

### **C. Fixed/Variable Pricing**

Fixed/variable pricing is an approach to rate design that uses fixed charges (charges that do not vary with the actual sales volume or peak demand) to compensate utilities for fixed costs of service. For residential and small commercial services, customer charges (a flat monthly fee per customer) are the most common fixed charge used. Base revenue thus tends to grow at the gradual pace of customer growth. A *straight* fixed/variable (“SFV”) rate design recovers *all* base revenue through fixed charges. A rate design that recovers a substantial but smaller share of fixed costs through fixed charges is sometimes called *modified* fixed/variable pricing.



Figure 5a: Electric Revenue Decoupling by State

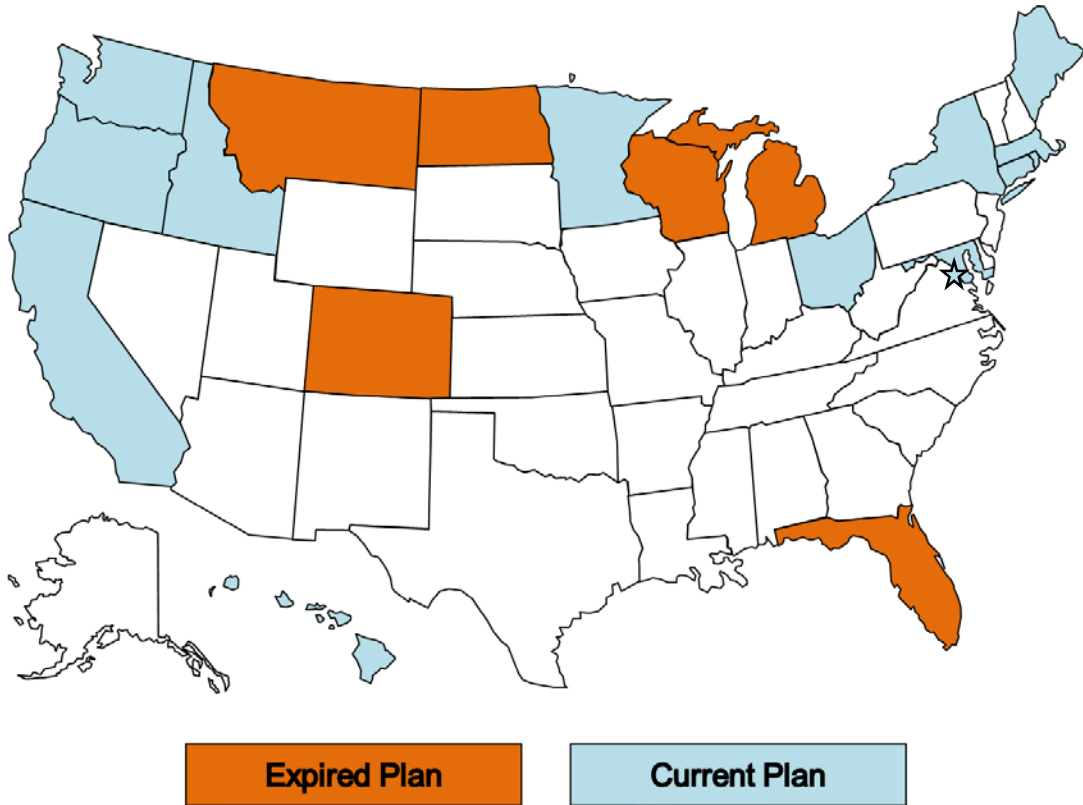


Figure 5b: Gas Revenue Decoupling by State

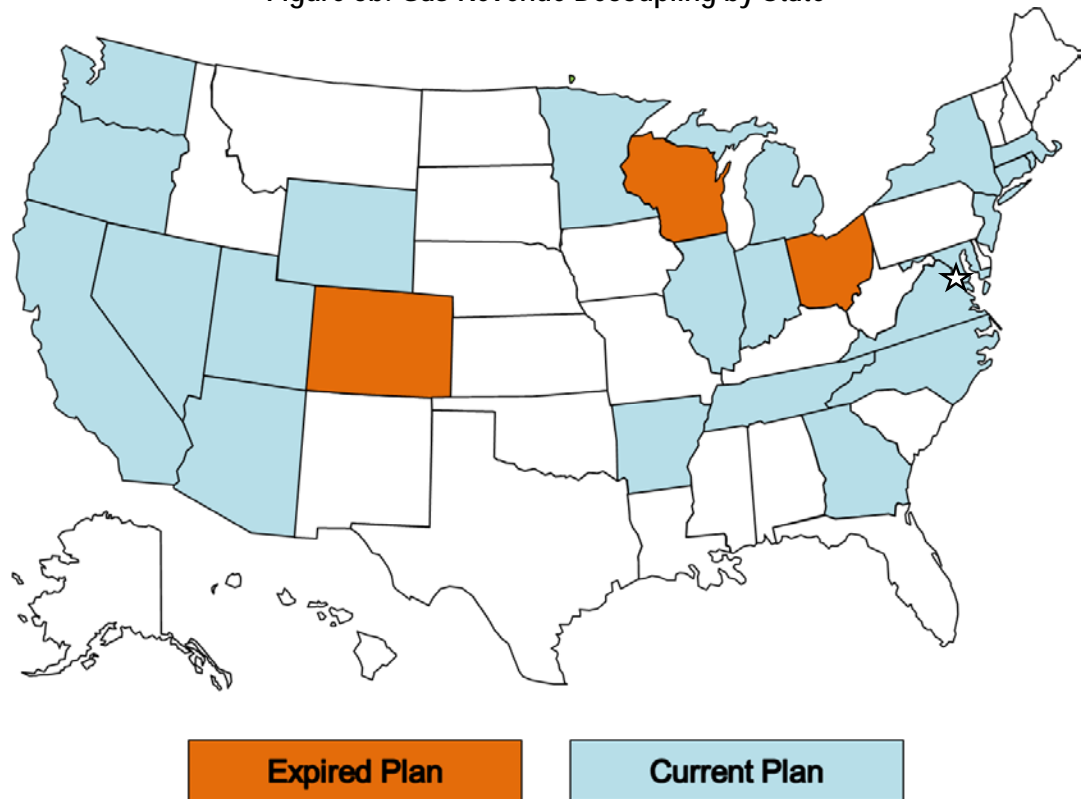


Table 4  
**Revenue Decoupling Precedents**

| Jurisdiction         | Company Name                          | Services       | Plan Years | Revenue Adjustment Mechanism                 | Case Reference                                       |
|----------------------|---------------------------------------|----------------|------------|--|--|
| <b>Current</b>       |                                       |                |            |  |  |
| <b>United States</b> |                                       |                |            |  |  |
| AR                   | Arkansas Oklahoma Gas                 | Gas            | 2014-open  | No RAM but multiple capital cost trackers    | Docket 13-078-U                                      |
| AR                   | CenterPoint Energy                    | Gas            | 2008-2016  | No RAM but multiple capital cost trackers    | Dockets 06-161-U, 11-088-U, 12-057-TF, and 13-114-TF |
| AR                   | SourceGas Arkansas (Arkansas Western) | Gas            | 2014-open  | No RAM but multiple capital cost trackers    | Docket 13-079-U                                      |
| AZ                   | Southwest Gas                         | Gas            | 2012-2015  | Customers                                    | Docket G-01551A-10-0458                              |
| CA                   | Bear Valley Electric Service          | Electric       | 2013-2016  | Stairstep                                    | Decision 14-11-002                                   |
| CA                   | California Pacific Electric           | Electric       | 2013-2015  | Indexing                                     | Decision 12-11-030                                   |
| CA                   | Pacific Gas & Electric                | Gas & Electric | 2014-2016  | Stairstep                                    | Decision 14-08-032                                   |
| CA                   | San Diego Gas & Electric              | Gas & Electric | 2012-2015  | Stairstep                                    | Decision 13-05-010                                   |
| CA                   | Southern California Edison            | Electric       | 2012-2014  | Hybrid                                       | Decision 12-11-051                                   |
| CA                   | Southern California Gas               | Gas            | 2012-2015  | Stairstep                                    | Decision 13-05-010                                   |
| CA                   | Southwest Gas                         | Gas            | 2014-2018  | Stairstep                                    | Decision 14-06-028                                   |
| CT                   | Connecticut Light & Power             | Electric       | 2014-open  | No RAM                                       | Docket 14-05-06                                      |
| CT                   | Connecticut Natural Gas               | Gas            | 2014-open  | No RAM                                       | Docket 13-06-08                                      |
| CT                   | United Illuminating                   | Electric       | 2013-open  | Stairstep until July 2015, No RAM thereafter | Docket 13-01-19                                      |
| DC                   | Potomac Electric Power                | Electric       | 2010-open  | Customers                                    | Order 15556  |
| GA                   | Atmos Energy                          | Gas            | 2012-open  | No RAM but FRP type mechanism also in effect | Docket 34734   |
| HI                   | Hawaiian Electric Company             | Electric       | 2011-open  | Hybrid                                       | Dockets 2008-0274, 2008-0083, 2013-0141              |
| HI                   | Hawaiian Electric Light Company       | Electric       | 2012-open  | Hybrid                                       | Dockets 2008-0274, 2009-0164, 2013-0141              |
| HI                   | Maui Electric                         | Electric       | 2012-open  | Hybrid                                       | Dockets 2008-0274, 2009-0163, 2013-0141              |
| ID                   | Idaho Power                           | Electric       | 2012-open  | Customers                                    | Cases IPC-E-11-19, IPC-E-14-17                       |
| IL                   | North Shore Gas                       | Gas            | 2012-open  | No RAM                                       | Case 11-0280   |
| IL                   | Peoples Gas Light & Coke              | Gas            | 2012-open  | No RAM but broad-based capital cost tracker  | Case 11-0281   |
| IN                   | Citizens Gas                          | Gas            | 2007-open  | Customers                                    | Cause 42767  |
| IN                   | Indiana Gas                           | Gas            | 2011-2015  | Customers                                    | Cause 44019  |
| IN                   | Indiana Gas                           | Gas            | 2016-2019  | Customers                                    | Cause 44598  |
| IN                   | Indiana Natural Gas                   | Gas            | 2014-open  | Customers                                    | Cause 44453  |
| IN                   | Vectren Southern Indiana              | Gas            | 2011-2015  | Customers                                    | Cause 44019  |
| IN                   | Vectren Southern Indiana              | Gas            | 2016-2019  | Customers                                    | Cause 44598  |
| MA                   | Bay State Gas                         | Gas            | 2015-2018  | Revenue per Customer Stairstep               | DPU 15-50  |
| MA                   | Boston-Essex Gas                      | Gas            | 2010-open  | Customers                                    | DPU 10-55  |
| MA                   | Colonial Gas                          | Gas            | 2010-open  | Customers                                    | DPU 10-55  |
| MA                   | Fitchburg Gas & Electric              | Gas            | 2011-open  | Customers                                    | DPU 11-02  |
| MA                   | Fitchburg Gas & Electric              | Electric       | 2011-open  | No RAM                                       | DPU 11-01  |
| MA                   | Massachusetts Electric                | Electric       | 2010-open  | No RAM but broad-based capital cost tracker  | DPU 09-39  |
| MA                   | New England Gas                       | Gas            | 2011-open  | Customers                                    | DPU 10-114   |
| MA                   | Western Massachusetts Electric        | Electric       | 2011-open  | No RAM                                       | DPU 10-70  |
| MD                   | Baltimore Gas & Electric              | Electric       | 2008-open  | Customers                                    | Letter Orders ML 108069, 108061                      |
| MD                   | Baltimore Gas & Electric              | Gas            | 1998-open  | Customers                                    | Case 8780  |
| MD                   | Chesapeake Utilities                  | Gas            | 2006-open  | Customers                                    | Order 81054  |
| MD                   | Columbia Gas of Maryland              | Gas            | 2013-open  | Customers                                    | Order 85858  |
| MD                   | Delmarva Power & Light                | Electric       | 2007-open  | Customers                                    | Order 81518  |
| MD                   | Potomac Electric Power                | Electric       | 2007-open  | Customers                                    | Order 81517  |
| MD                   | Washington Gas Light                  | Gas            | 2005-open  | Customers                                    | Order 80130  |
| ME                   | Central Maine Power                   | Electric       | 2014-open  | Customers                                    | Docket 2013-00168                                    |

Table 4 (cont'd)

| Jurisdiction                  | Company Name                          | Services       | Plan Years | Revenue Adjustment Mechanism                                      | Case Reference                      |
|-------------------------------|---------------------------------------|----------------|------------|---|-------------------------------------|
| <b>Current (cont'd)</b>       |                                       |                |            |   |                                     |
| <b>United States (cont'd)</b> |                                       |                |            |   |                                     |
| MI                            | Consumers Energy                      | Gas            | 2015-open  | No RAM  | Case U-17643                        |
| MI                            | Michigan Consolidated Gas             | Gas            | 2013-open  | No RAM  | Case U-16999                        |
| MI                            | Michigan Gas Utilities                | Gas            | 2015-open  | No RAM  | Case U-17273                        |
| MN                            | CenterPoint Energy                    | Gas            | 2015-2018  | Customers   | GR-13-316                           |
| MN                            | Minnesota Energy Resources            | Gas            | 2013-2016  | Customers   | GR-10-977                           |
| MN                            | Northern States Power - MN            | Electric       | 2016-2018  | Customers   | GR-13-868                           |
| NC                            | Piedmont Natural Gas                  | Gas            | 2008-open  | Customers   | Docket G-9, Sub 550                 |
| NC                            | Public Service Co of NC               | Gas            | 2008-open  | Customers   | Docket G-5, Sub 495                 |
| NJ                            | New Jersey Natural Gas                | Gas            | 2014-open  | Customers   | Docket GR13030185                   |
| NJ                            | South Jersey Gas                      | Gas            | 2014-open  | Customers   | Docket GR13030185                   |
| NV                            | Southwest Gas                         | Gas            | 2009-open  | Customers   | D-09-04003                          |
| NY                            | Central Hudson G&E                    | Gas & Electric | 2015-2018  | Revenue per Customer Stairstep for Gas, Stairstep for Electric    | Cases 14-E-0318, 14-G-0319          |
| NY                            | Consolidated Edison                   | Gas            | 2014-2016  | Revenue per Customer Stairstep                                    | Case 13-G-0031                      |
| NY                            | Consolidated Edison                   | Electric       | 2014-2016  | Stairstep   | Case 13-E-0030                      |
| NY                            | Corning Natural Gas                   | Gas            | 2015-2017  | Customers   | Case 11-G-0280                      |
| NY                            | Keyspan Energy Delivery - Long Island | Gas            | 2010-open  | Revenue per Customer Stairstep through 2012, Customers After 2012 | Case 06-G-1186                      |
| NY                            | Keyspan Energy Delivery New York      | Gas            | 2013-2014  | Revenue per Customer Stairstep through 2014, Customers After 2014 | Case 12-G-0544                      |
| NY                            | National Fuel Gas                     | Gas            | 2013-2015  | Customers   | Case 13-G-0136                      |
| NY                            | New York State Electric & Gas         | Gas            | 2010-2013  | Revenue per Customer Stairstep through 2013, Customers thereafter | Case 09-E-0715                      |
| NY                            | New York State Electric & Gas         | Electric       | 2010-2013  | Stairstep through 2013, No RAM thereafter                         | Case 09-G-0716                      |
| NY                            | Niagara Mohawk                        | Gas            | 2013-2016  | Optional Revenue per Customer Stairstep                           | Case 12-G-0202                      |
| NY                            | Niagara Mohawk                        | Electric       | 2013-2016  | Optional Stairstep  | Case 12-E-0201                      |
| NY                            | Orange & Rockland Utilities           | Gas            | 2015-2018  | Revenue per Customer Stairstep                                    | Case 14-G-0494                      |
| NY                            | Orange & Rockland Utilities           | Electric       | 2015-2017  | Stairstep   | Case 14-E-0493                      |
| NY                            | Rochester Gas & Electric              | Gas            | 2010-2013  | Revenue per Customer Stairstep through 2013, Customers thereafter | Case 09-E-0717                      |
| NY                            | Rochester Gas & Electric              | Electric       | 2010-2013  | Stairstep through 2013, No RAM thereafter                         | Case 09-G-0718                      |
| NY                            | St. Lawrence Gas                      | Gas            | 2010-open  | Revenue per Customer Stairstep through 2012, Customers thereafter | Case 08-G-1392                      |
| OH                            | AEP Ohio                              | Electric       | 2012-2018  | Customers   | Cases 11-351-EL-AIR, 13-2385-EL-SSO |
| OH                            | Duke Energy Ohio                      | Electric       | 2015-open  | Customers   | Case 14-841-EL-SSO                  |
| OR                            | Cascade Natural Gas                   | Gas            | 2013-2015  | Customers   | Order 13-079                        |
| OR                            | Northwest Natural Gas                 | Gas            | 2012-open  | Customers   | Order 12-408                        |
| OR                            | Portland General Electric             | Electric       | 2014-2016  | Customers   | Order 13-459                        |
| RI                            | Narragansett Electric                 | Electric       | 2012-open  | No RAM but broad-based capital cost tracker                       | Docket 4206                         |
| RI                            | Narragansett Electric                 | Gas            | 2012-open  | Customers   | Docket 4206                         |
| TN                            | Chattanooga Gas                       | Gas            | 2013-open  | Customers   | Docket 09-0183                      |
| UT                            | Questar Gas                           | Gas            | 2010-open  | Customers   | Docket 09-057-16                    |
| VA                            | Columbia Gas of Virginia              | Gas            | 2013-2015  | Customers   | Case PUE-2012-00013                 |
| VA                            | Virginia Natural Gas                  | Gas            | 2013-2016  | Customers   | Case PUE-2012-00118                 |
| VA                            | Washington Gas Light                  | Gas            | 2013-2016  | Customers   | Case PUE-2012-00138                 |
| WA                            | Avista                                | Gas & Electric | 2015-2019  | Customers   | Dockets UE-140188 and UG-140189     |
| WA                            | Puget Sound Energy                    | Gas & Electric | 2013-2016  | Revenue per Customer Stairstep                                    | Dockets UE-121697 and UG-121705     |
| WY                            | Questar Gas                           | Gas            | 2012-open  | Customers   | Docket 30010-113-GR-11              |
| WY                            | SourceGas Distribution                | Gas            | 2011-open  | Customers   | Docket 30022-148-GR-10              |

Table 4 (cont'd)

| Jurisdiction            | Company Name                       | Services       | Plan Years | Revenue Adjustment Mechanism                 | Case Reference                  |
|-------------------------|------------------------------------|----------------|------------|--|---------------------------------|
| <b>Current (cont'd)</b> |                                    |                |            |  |                                 |
| <b>Canada</b>           |                                    |                |            |  |                                 |
| BC                      | BC Hydro                           | Electric       | 2015-2016  | Stairstep                                    | Order G-48-14                   |
| BC                      | FortisBC                           | Electric       | 2014-2019  | Indexing                                     | Order G-139-14                  |
| BC                      | FortisBC Energy                    | Gas            | 2014-2019  | Indexing                                     | Order G-138-14                  |
| BC                      | Pacific Northern Gas               | Gas            | 2003-open  | Customers                                    | N/A                             |
| ON                      | Enbridge Gas Distribution          | Gas            | 2014-2018  | Stairstep                                    | EB-2012-0459                    |
| ON                      | Union Gas                          | Gas            | 2014-2018  | Indexing                                     | EB-2013-0202                    |
| <b>Historic</b>         |                                    |                |            |  |                                 |
| <b>United States</b>    |                                    |                |            |  |                                 |
| AR                      | Arkansas Oklahoma Gas              | Gas            | 2007-2013  | No RAM                                       | Dockets 07-026-U, 07-077-TF     |
| AR                      | Arkansas Western                   | Gas            | 2008-2013  | No RAM                                       | Docket 07-078-TF                |
| CA                      | Bear Valley Electric Service       | Electric       | 2009-2012  | Stairstep                                    | Decision 09-10-028              |
| CA                      | Pacific Gas & Electric             | Gas & Electric | 1982-1983  | Hybrid                                       | Decision 93887                  |
| CA                      | Pacific Gas & Electric             | Electric       | 1984-1985  | Hybrid                                       | Decision 83-12-068              |
| CA                      | Pacific Gas & Electric             | Electric       | 1986-1989  | Hybrid                                       | Decision 85-12-076              |
| CA                      | Pacific Gas & Electric             | Electric       | 1990-1992  | Hybrid                                       | Decision 89-12-057              |
| CA                      | Pacific Gas & Electric             | Gas & Electric | 1993-1995  | Hybrid                                       | Decision 92-12-057              |
| CA                      | Pacific Gas & Electric             | Gas & Electric | 2004-2006  | Indexing                                     | Decision 04-05-055              |
| CA                      | Pacific Gas & Electric             | Gas & Electric | 2007-2010  | Stairstep                                    | Decision 07-03-044              |
| CA                      | Pacific Gas & Electric             | Gas & Electric | 2011-2013  | Stairstep                                    | Decision 11-05-018              |
| CA                      | Pacific Gas & Electric             | Gas            | 1978-1981  | No RAM                                       | Decisions 89316, 91107          |
| CA                      | PacifiCorp                         | Electric       | 1984-1985  | Stairstep                                    | Decision 89-09-034              |
| CA                      | San Diego Gas & Electric           | Gas & Electric | 1982-1983  | Hybrid                                       | Decision 93892                  |
| CA                      | San Diego Gas & Electric           | Gas & Electric | 1986-1988  | Hybrid                                       | Decision 85-12-108              |
| CA                      | San Diego Gas & Electric           | Electric       | 1989-1993  | Hybrid                                       | Decision 89-11-068              |
| CA                      | San Diego Gas & Electric           | Gas & Electric | 1994-1999  | Hybrid                                       | Decision 94-08-023              |
| CA                      | San Diego Gas & Electric           | Gas & Electric | 2005-2007  | Indexing                                     | Decision 05-03-025              |
| CA                      | San Diego Gas & Electric           | Gas & Electric | 2008-2011  | Stairstep                                    | Decision 08-07-046              |
| CA                      | Southern California Edison         | Electric       | 1983-1984  | Hybrid                                       | Decision 82-12-055              |
| CA                      | Southern California Edison         | Electric       | 1986-1991  | Hybrid                                       | Decision 85-12-076              |
| CA                      | Southern California Edison         | Electric       | 2001-2003  | Indexing                                     | Decision 02-04-055              |
| CA                      | Southern California Edison         | Electric       | 2004-2006  | Hybrid                                       | Decision 04-07-022              |
| CA                      | Southern California Edison         | Electric       | 2006-2008  | Hybrid                                       | Decision 06-05-016              |
| CA                      | Southern California Edison         | Electric       | 2009-2011  | Stairstep                                    | Decision 09-03-025              |
| CA                      | Southern California Gas            | Gas            | 1979-1980  | No RAM                                       | Decision 89710                  |
| CA                      | Southern California Gas            | Gas            | 1981-1982  | Stairstep                                    | Decision 92497                  |
| CA                      | Southern California Gas            | Gas            | 1983-1984  | Hybrid                                       | Decision dated December 8, 1982 |
| CA                      | Southern California Gas            | Gas            | 1986-1989  | Hybrid                                       | Decision 85-12-076              |
| CA                      | Southern California Gas            | Gas            | 1990-1993  | Hybrid                                       | Decision 90-01-016              |
| CA                      | Southern California Gas            | Gas            | 1998-2002  | Indexing                                     | Decision 97-07-054              |
| CA                      | Southern California Gas            | Gas            | 2005-2007  | Indexing                                     | Decision 05-03-025              |
| CA                      | Southern California Gas            | Gas            | 2008-2011  | Stairstep                                    | Decision 08-07-046              |
| CA                      | Southwest Gas                      | Gas            | 2009-2013  | Stairstep                                    | Decision 08-11-048              |
| CO                      | Public Service Company of Colorado | Gas            | 2008-2011  | Customers                                    | Decision C07-0568               |
| CO                      | Public Service Company of Colorado | Electric       | 2012-2014  | Stairstep                                    | Decision C12-0494               |
| CT                      | United Illuminating                | Electric       | 2009-2013  | Stairstep until 2011/No RAM for 2011 onwards | Docket 08-07-04                 |
| FL                      | Florida Power Corporation          | Electric       | 1995-1997  | Customers                                    | Docket 930444                   |
| ID                      | Idaho Power                        | Electric       | 2007-2009  | Customers                                    | Case IPC-E-04-15                |
| ID                      | Idaho Power                        | Electric       | 2010-2012  | Customers                                    | Case IPC-E-09-28                |
| IL                      | North Shore Gas                    | Gas            | 2008-2012  | Customers                                    | Case 07-0241                    |
| IL                      | Peoples Gas Light & Coke           | Gas            | 2008-2012  | Customers                                    | Case 07-0242                    |
| IN                      | Citizens Gas                       | Gas            | 2007-2011  | Customers                                    | Cause 42767                     |
| IN                      | Vectren Energy                     | Gas            | 2007-2011  | Customers                                    | Cause 43046                     |
| IN                      | Vectren Southern Indiana           | Gas            | 2007-2011  | Customers                                    | Cause 43046                     |
| MA                      | Bay State Gas                      | Gas            | 2009-open  | Customers                                    | DPU 09-30                       |
| ME                      | Central Maine Power                | Electric       | 1991-1993  | Customers                                    | Docket 90-085                   |
| MI                      | Consumers Energy                   | Electric       | 2009-2011  | Customers                                    | Case U-15645                    |
| MI                      | Consumers Energy                   | Gas            | 2010-2012  | Customers                                    | Case U-15986                    |
| MI                      | Detroit Edison                     | Electric       | 2010-2011  | Customers                                    | Case U-15768                    |
| MI                      | Michigan Consolidated Gas          | Gas            | 2010-2012  | Customers                                    | Case U-15985                    |
| MI                      | Michigan Gas Utilities             | Gas            | 2010-2013  | Customers                                    | Case U-15990                    |
| MI                      | Upper Peninsula Power              | Electric       | 2010-2011  | Customers                                    | Case U-15988                    |
| MN                      | CenterPoint Energy                 | Gas            | 2010-2013  | Customers                                    | Docket GR-08-1075               |
| MT                      | Montana Power Company              | Electric       | 1994-1998  | Customers                                    | Docket 93.6.24                  |

Table 4 (cont'd)

| Jurisdiction                  | Company Name                       | Services       | Plan Years | Revenue Adjustment Mechanism                                   | Case Reference        |
|-------------------------------|------------------------------------|----------------|------------|--|-----------------------|
| <b>Historic (cont'd)</b>      |                                    |                |            |  |                       |
| <b>United States (cont'd)</b> |                                    |                |            |  |                       |
| NC                            | Piedmont Natural Gas               | Gas            | 2005-2008  | Customers  | Docket G-44 Sub 15    |
| ND                            | Northern States Power - MN         | Electric       | 2012       | Not Applicable, plan only 1 year in duration                   | Case PU-11-55         |
| NJ                            | New Jersey Natural Gas             | Gas            | 2007-2010  | Customers  | Docket GR05121020     |
| NJ                            | New Jersey Natural Gas             | Gas            | 2010-2013  | Customers  | Docket GR05121020     |
| NJ                            | South Jersey Gas                   | Gas            | 2007-2010  | Customers  | Docket GR05121019     |
| NJ                            | South Jersey Gas                   | Gas            | 2010-2013  | Customers  | Docket GR05121019     |
| NY                            | Central Hudson G&E                 | Gas            | 2009-open  | Customers  | Case 08-E-0888        |
| NY                            | Central Hudson G&E                 | Electric       | 2009       | No RAM   | Case 08-E-0887        |
| NY                            | Central Hudson G&E                 | Gas & Electric | 2010-2013  | Revenue per Customer Stairstep for Gas, Stairstep for Electric | Case 09-E-0588        |
| NY                            | Central Hudson G&E                 | Gas & Electric | 2013-open  | Customers for Gas, No RAM for Electric                         | Case 12-M-0192        |
| NY                            | Consolidated Edison                | Electric       | 1992-1995  | Stairstep  | Opinion 92-8          |
| NY                            | Consolidated Edison                | Gas            | 2007-2010  | Stairstep  | Case 06-G-1332        |
| NY                            | Consolidated Edison                | Electric       | 2008-open  | No RAM   | Case 07-E-0523        |
| NY                            | Consolidated Edison                | Gas            | 2010-2013  | Revenue per Customer Stairstep                                 | Case 09-G-0795        |
| NY                            | Consolidated Edison                | Electric       | 2010-2013  | Stairstep  | Case 09-E-0428        |
| NY                            | Corning Natural Gas                | Gas            | 2012-2015  | Revenue per Customer Stairstep                                 | Case 11-G-0280        |
| NY                            | Keyspan Energy Delivery - New York | Gas            | 2010-open  | Revenue per Customer Stairstep                                 | Case 06-G-1185        |
| NY                            | Long Island Lighting Company       | Electric       | 1992-1994  | Stairstep  | Opinion 92-8          |
| NY                            | National Fuel Gas                  | Gas            | 2008-open  | Customers  | Case 07-G-0141        |
| NY                            | New York State Electric & Gas      | Electric       | 1993-1995  | Stairstep  | Opinion 93-22         |
| NY                            | Niagara Mohawk                     | Electric       | 1990-1992  | Stairstep  | Case 94-E-0098        |
| NY                            | Niagara Mohawk                     | Gas            | 2009-open  | Customers  | Case 08-G-0609        |
| NY                            | Niagara Mohawk                     | Electric       | 2011-open  | No RAM   | Case 10-E-0050        |
| NY                            | Orange & Rockland Utilities        | Electric       | 2012-2015  | Stairstep  | Case 11-E-0408        |
| NY                            | Orange & Rockland Utilities        | Electric       | 2011-2012  | No RAM   | Case 10-E-0362        |
| NY                            | Orange & Rockland Utilities        | Electric       | 2008-2011  | Stairstep  | Case 07-E-0949        |
| NY                            | Orange & Rockland Utilities        | Electric       | 1991-1993  | Stairstep  | Case 89-E-175         |
| NY                            | Orange & Rockland Utilities        | Gas            | 2012-2015  | Customers  | Case 08-G-1398        |
| NY                            | Orange & Rockland Utilities        | Gas            | 2009-2012  | Revenue per Customer Stairstep                                 | Case 08-G-1398        |
| NY                            | Rochester Gas & Electric           | Electric       | 1993-1996  | Stairstep  | Opinion 93-19         |
| OH                            | Duke Energy Ohio                   | Electric       | 2012-2014  | Customers  | Case 11-5905-EL-RDR   |
| OH                            | Vectren Energy                     | Gas            | 2007-2009  | Customers  | Case 05-1444-GA-UNC   |
| OR                            | Cascade Natural Gas                | Gas            | 2007-2012  | Customers  | Order 06-191          |
| OR                            | Northwest Natural Gas              | Gas            | 2002-2005  | Customers  | Order 02-634          |
| OR                            | Northwest Natural Gas              | Gas            | 2005-2009  | Customers  | Order 05-934          |
| OR                            | Northwest Natural Gas              | Gas            | 2009-2012  | Customers  | Order 07-426          |
| OR                            | PacifiCorp                         | Electric       | 1998-2001  | Indexing   | Order 98-191          |
| OR                            | Portland General Electric          | Electric       | 1995-1996  | Stairstep  | Order 95-0322         |
| OR                            | Portland General Electric          | Electric       | 2009-2010  | Customers  | Order 09-020          |
| OR                            | Portland General Electric          | Electric       | 2011-2013  | Customers  | Order 10-478          |
| TN                            | Chattanooga Gas                    | Gas            | 2010-2013  | Customers  | Docket 09-0183        |
| UT                            | Questar Gas                        | Gas            | 2006-2010  | Customers  | Docket 05-057-T01     |
| VA                            | Virginia Natural Gas               | Gas            | 2009-2012  | Customers  | Case PUE-2008-00060   |
| VA                            | Washington Gas Light               | Gas            | 2010-2013  | Customers  | Case PUE-2009-00064   |
| WA                            | Avista                             | Gas            | 2007-2009  | Customers  | Docket UG-060518      |
| WA                            | Avista                             | Gas            | 2009-2012  | Customers  | Docket UG-060518      |
| WA                            | Avista                             | Gas            | 2013-2014  | Revenue per Customer Stairstep                                 | Docket UG-120437      |
| WA                            | Cascade Natural Gas                | Gas            | 2005-2010  | Customers  | Docket UG-060256      |
| WA                            | Puget Sound & Power                | Electric       | 1991-1995  | Customers  | Docket UE-901184-P    |
| WI                            | Wisconsin Public Service           | Gas & Electric | 2009-2012  | Customers  | D-6690-UR-119         |
| WI                            | Wisconsin Public Service           | Gas & Electric | 2013       | Not Applicable, plan only 1 year in duration                   | Docket 6690-UR-121    |
| WY                            | Questar Gas                        | Gas            | 2009-2012  | Customers  | Docket 30010-94-GR-08 |

Table 4 (cont'd)

| <b>Jurisdiction</b>      | <b>Company Name</b>       | <b>Services</b> | <b>Plan Years</b> | <b>Revenue Adjustment Mechanism</b>          | <b>Case Reference</b> |
|--------------------------|---------------------------|-----------------|-------------------|--|-----------------------|
| <b>Historic (cont'd)</b> |                           |                 |                   |  |                       |
| <b>Canada</b>            |                           |                 |                   |  |                       |
| <b>BC</b>                | BC Gas                    | Gas             | 1994-1995         | Hybrid                                       | Order G-59-94         |
| <b>BC</b>                | BC Gas                    | Gas             | 1996-1997         | Hybrid                                       | N/A                   |
| <b>BC</b>                | BC Gas                    | Gas             | 1998-2000         | Hybrid                                       | Order G-85-97         |
| <b>BC</b>                | BC Gas                    | Gas             | 2000-2001         | Hybrid                                       | Order G-48-00         |
| <b>BC</b>                | BC Hydro                  | Electric        | 2009-2010         | Hybrid                                       | Order G-16-09         |
| <b>BC</b>                | BC Hydro                  | Electric        | 2011              | Not Applicable, plan only 1 year in duration | Order G-180-10        |
| <b>BC</b>                | BC Hydro                  | Electric        | 2012-2014         | Stairstep                                    | Order G-77-12A        |
| <b>BC</b>                | FortisBC                  | Electric        | 2012-2013         | Stairstep                                    | Order G 110-12        |
| <b>BC</b>                | Terasen Gas               | Gas             | 2008-2009         | Hybrid                                       | Order G-33-07         |
| <b>BC</b>                | Terasen Gas               | Gas             | 2004-2007         | Hybrid                                       | Order G-51-03         |
| <b>BC</b>                | Terasen Gas               | Gas             | 2010-2011         | Hybrid                                       | Order G-141-09        |
| <b>BC</b>                | Terasen Gas               | Gas             | 2012-2013         | Stairstep                                    | Order G-44-12         |
| <b>ON</b>                | Enbridge Gas Distribution | Gas             | 2008-2012         | Revenue per Customer Indexing                | Docket EB-2007-0615   |
| <b>ON</b>                | Union Gas                 | Gas             | 2008-2012         | Indexing                                     | Docket EB-2007-0606   |

Fixed/variable pricing relaxes the revenue/usage link with low administrative cost since it requires neither decoupling true ups nor load impact calculations. When average use is declining, base revenue will grow more rapidly with fixed/variable pricing so that rate cases tend to be less frequent even if the decline is largely driven by external forces. Base revenue grows more slowly than under conventional rate designs if average use is rising. The short term disincentive is removed to embrace various DSM initiatives. However, fixed/variable pricing reduces a utility’s ability to use usage charges as a tool for promoting DSM. For example, it does not encourage customers with electric vehicles to charge these vehicles at night. Note also that the principle of rate design gradualism often discourages regulators from immediately adopting SFV pricing.

SFV pricing has been used on a large scale by interstate gas transmission companies since the early 1990s. Precedents for fixed/variable pricing in retail ratemaking are listed below on Table 5 and Figure 6. It can be seen that fixed/variable pricing has to date been considerably more common for gas distributors than electric utilities. This again reflects the greater problem of declining average use that gas distributors have faced, and the fact that the decline has been driven largely by external forces. Since our 2013 survey, fixed/variable pricing has been implemented for an electric utility in Oklahoma.

In addition to the precedents listed here, utilities in Wisconsin and several other states have in recent years made sizable steps in the direction of fixed/variable pricing by redesigning rates for small volume customers to raise customer charges and lower volumetric charges substantially. Investor-owned utilities in Canada are typically permitted to raise a much higher portion of their revenue through fixed charges than are utilities in the United States. Most fixed/variable rate designs feature uniform fixed charges within service classes, but gas utilities in Florida, Georgia, and Oklahoma have fixed charges that vary in some fashion with long term consumption patterns.

Figure 6: Fixed/Variable Pricing Precedents by State

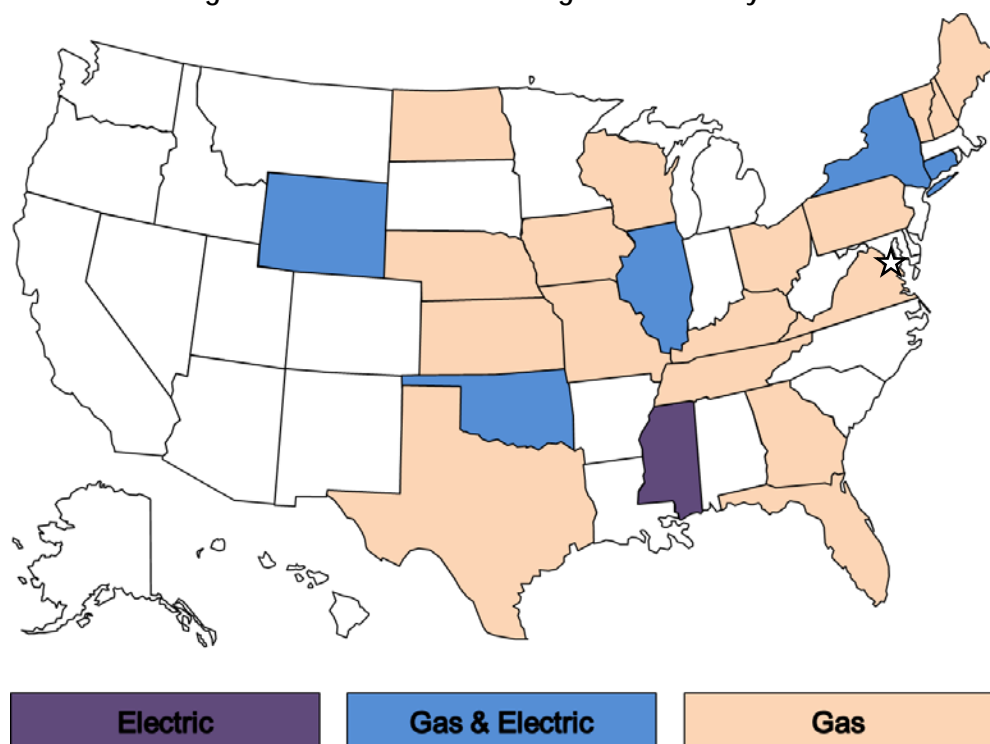


Table 5

**Fixed Variable Residential Pricing Precedents<sup>1</sup>**

| Jurisdiction | Company Name                                | Services       | Years in Place                | Case Reference         |
|--------------|---|----------------|-------------------------------|------------------------|
| CT           | Connecticut Light & Power                   | Electric       | 2007-open                     | Docket 07-07-01        |
| CT           | Connecticut Natural Gas                     | Gas            | 2014-open                     | Docket 13-06-08        |
| CT           | United Illuminating                         | Electric       | Occurred over period of years | No specific case       |
| CT           | Yankee Gas System                           | Gas            | 2011-open                     | Docket 10-12-02        |
| FL           | Peoples Gas System                          | Gas            | 2009-open                     | Docket 080318-GU       |
| GA           | Liberty Utilities                           | Gas            | 2015-open                     | Docket 34734           |
| IA           | Black Hills Energy                          | Gas            | 2009-open                     | Docket RPU-08-3        |
| IL           | Ameren CILCO                                | Gas            | 2008-2012                     | Case 07-0588           |
| IL           | Ameren CIPS                                 | Gas            | 2008-2012                     | Case 07-0589           |
| IL           | Ameren IP                                   | Gas            | 2008-2012                     | Case 07-0590           |
| IL           | Ameren Illinois                             | Gas            | 2012-open                     | Case 11-0282           |
| IL           | Ameren Illinois                             | Electric       | Occurred over period of years | No specific case       |
| IL           | Commonwealth Edison                         | Electric       | 2011-2013                     | Case 10-0467           |
| IL           | Mt. Carmel Public Utilities                 | Gas            | 2013-open                     | Case 13-0079           |
| IL           | North Shore Gas                             | Gas            | 2008-open                     | Case 07-0241           |
| IL           | Peoples Gas Light & Coke                    | Gas            | 2008-open                     | Case 07-0242           |
| KS           | Atmos Energy                                | Gas            | 2010-open                     | Docket 10-ATMG-495-RTS |
| KS           | Black Hills Energy (formerly Aquila)        | Gas            | 2007-open                     | Docket 07-AQLG-431-RTS |
| KS           | Kansas Gas Service                          | Gas            | 2012-open                     | Docket 12-KGSG-835-RTS |
| KY           | Atmos Energy                                | Gas            | 2014-open                     | Case 2013-00148        |
| KY           | Columbia Gas                                | Gas            | 2013-open                     | Case 2013-00167        |
| KY           | Delta Natural Gas                           | Gas            | 2007-open                     | Case 2007-00089        |
| KY           | Duke Energy Kentucky                        | Gas            | 2010-open                     | Case 2009-00202        |
| ME           | Maine Natural Gas                           | Gas            | Occurred over period of years | Docket 2009-00067      |
| ME           | Northern Utilities                          | Gas            | 2014-open                     | Docket 2013-00133      |
| MO           | AmerenUE                                    | Gas            | 2007-open                     | Case GR-2007-0003      |
| MO           | Atmos Energy                                | Gas            | 2007-2010                     | Case GR-2006-0387      |
| MO           | Atmos Energy                                | Gas            | 2010-open                     | Case GR-2010-0192      |
| MO           | Empire District Gas                         | Gas            | 2010-open                     | Case GR-2009-0434      |
| MO           | Laclede Gas                                 | Gas            | 2002-open                     | Case GR-2002-356       |
| MO           | Missouri Gas Energy                         | Gas            | 2007-open                     | Case GR-2006-0422      |
| MS           | Mississippi Power                           | Electric       | Occurred over period of years | No specific case       |
| ND           | Xcel Energy                                 | Gas            | 2005-open                     | Case PU-04-578         |
| NE           | SourceGas Distribution                      | Gas            | 2012-open                     | Docket NG-0067         |
| NH           | Liberty Utilities (EnergyNorth Natural Gas) | Gas            | Occurred over period of years | No specific case       |
| NH           | Northern Utilities                          | Gas            | 2014-open                     | DG 13-086              |
| NY           | Central Hudson Gas & Electric               | Electric & Gas | Occurred over period of years | No specific case       |
| NY           | Consolidated Edison                         | Electric & Gas | Occurred over period of years | No specific case       |
| NY           | Corning Gas                                 | Gas            | Occurred over period of years | No specific case       |
| NY           | Keyspan Energy Delivery - Long Island       | Gas            | Occurred over period of years | No specific case       |
| NY           | Keyspan Energy Delivery - New York          | Gas            | Occurred over period of years | No specific case       |
| NY           | National Fuel Gas                           | Gas            | Occurred over period of years | No specific case       |



Table 5 (cont'd)

| Jurisdiction | Company Name                                    | Services       | Years in Place                | Case Reference                                     |
|--------------|---|----------------|-------------------------------|--|
| NY           | New York State Electric & Gas                   | Electric       | Occurred over period of years | No specific case                                   |
| NY           | Niagara Mohawk                                  | Electric & Gas | Occurred over period of years | No specific case                                   |
| NY           | Orange & Rockland                               | Electric & Gas | Occurred over period of years | No specific case                                   |
| NY           | Rochester Gas & Electric                        | Electric & Gas | Occurred over period of years | No specific case                                   |
| OH           | Columbia Gas                                    | Gas            | 2008-open                     | Case 08-0072-GA-AIR                                |
| OH           | Dominion East Ohio                              | Gas            | 2008-2010                     | Case 07-830-GA-ALT                                 |
| OH           | Duke Energy Ohio (CG&E)                         | Gas            | 2008-open                     | Case 07-590-GA-ALT                                 |
| OH           | Vectren Energy Delivery of Ohio                 | Gas            | 2009-open                     | Case 07-1080-GA-AIR                                |
| OK           | Arkansas Oklahoma Gas                           | Gas            | 2013-open                     | Cause PUD 201200236                                |
| OK           | Centerpoint Energy                              | Gas            | 2010-open                     | Cause PUD 201000030                                |
| OK           | Oklahoma Natural Gas                            | Gas            | 2004-open                     | Causes PUD 200400610, PUD 201000048, PUD 200900110 |
| OK           | Public Service Company of Oklahoma              | Electric       | 2015-open                     | Cause PUD 201300217                                |
| PA           | Columbia Gas                                    | Gas            | 2013-open                     | Docket R-2012-2321748                              |
| TN           | Atmos Energy                                    | Gas            | 2012-open                     | Docket 12-00064                                    |
| TN           | Piedmont Natural Gas                            | Gas            | 2012-open                     | Docket 11-00144                                    |
| TX           | Atmos Energy - Mid-Tex Division                 | Gas            | Occurred over period of years | No specific case                                   |
| TX           | Atmos Energy - West Texas Division              | Gas            | Occurred over period of years | No specific case                                   |
| TX           | Centerpoint Energy Houston Division             | Gas            | Occurred over period of years | No specific case                                   |
| TX           | Centerpoint Energy Beaumont/East Texas Division | Gas            | Occurred over period of years | No specific case                                   |
| VA           | Columbia Gas of Virginia                        | Gas            | Occurred over period of years | No specific case                                   |
| VT           | Vermont Gas Systems                             | Gas            | Occurred over period of years | No specific case                                   |
| WI           | Madison Gas & Electric                          | Gas            | 2015-open                     | Docket 3270-UR-120                                 |
| WI           | Wisconsin Public Service                        | Gas            | 2015-open                     | Docket 6690-UR-123                                 |
| WY           | SourceGas Distribution                          | Gas            | 2011-open                     | Docket 30022-148-GR-10                             |
| WY           | PacifiCorp (d/b/a Rocky Mountain Power)         | Electric       | 2009-open                     | Docket 20000-333-ER-08                             |

<sup>1</sup> Fixed variable pricing precedents include power and gas distributors that have a customer charge equal to or in excess of \$15 (or \$20 for vertically integrated electric utilities).

## IV. Forward Test Years

General rate cases involve “test years” in which revenue requirements and billing determinants (e.g., the residential delivery volume) are jointly considered in ratesetting. A historical test year ends before the rate case is filed. A forward (a/k/a “fully forecasted”) test year (“FTY”) begins after the rate case is filed. An FTY typically begins about the time the rate case is expected to end and new rates take effect. Two-year forecasts may be required in this event which span both the year of the rate case and the rate effective year.<sup>4</sup> In between forward and historical test years is the option of a “partially forecasted” test year in which some months of historical data on utility operations are combined with some months of forecasted data. Under this approach, actual data for all months usually become available during the course of the rate case.

Historical test years tend to be uncompensatory when cost is growing faster than billing determinants. Annual rate cases with historical test years can alleviate but not eliminate underearning under these conditions. The effect on credit metrics can be material.<sup>5</sup> Where historical test years are used, there are thus added advantages to implementing other Altreg innovations discussed in this survey.

Forward test years can fully compensate utilities when cost growth exceeds growth in billing determinants. If this imbalance is chronic, however, FTYs do not eliminate the problem of frequent rate cases. It is therefore not unusual for regulators to combine FTYs with other Altreg remedies, such as cost trackers or multiyear rate plans.

Many approaches are used to forecast costs in FTY rate cases. Some companies rely on their budgeting process to make cost projections. Others normalize data for an historical reference period, adjusted for known and measurable changes, and then use indexing and other statistical methods to extend projections. A mixture of forecasting methods is common. For example, index-based forecasting may be used only for O&M expenses.

FTYs were adopted in many jurisdictions during the 1970s and 1980s, when rapid inflation and major plant additions coincided with oil shock-induced slowdowns in the growth of average use. Several additional states have recently moved in the direction of FTYs. Some of these states are in the West, where comparatively rapid economic growth has required more rapid buildout of utility infrastructure.

Current state policies concerning test years are summarized below in Figure 7 and Table 6. In many jurisdictions the use of partially or fully-forecasted test years is not standardized. For example, in some jurisdictions, including Illinois and North Dakota, utilities are allowed to select their type of rate case test year. Test year selection may also be made part of the rate case (e.g., Utah). A few jurisdictions allow forward test years to be used in rate cases or formula rate plans, but not both (e.g., Illinois and Arkansas).

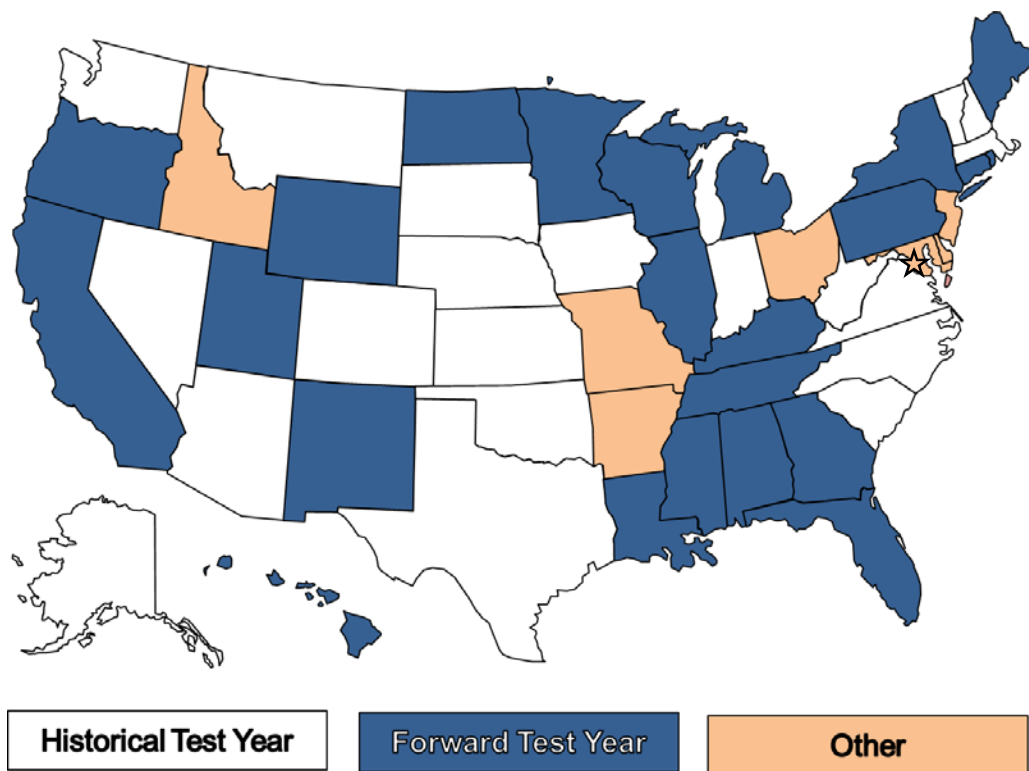
<sup>4</sup> A forward test year can in principle be the rate case year, and thereby not require two-year forecasts. Proposed rates can be established on an interim basis shortly after the filing.

<sup>5</sup> For evidence see “Forward Test Years for US Electric Utilities” by Mark Newton Lowry, David Hovde, Lullit Getachew, and Matt Makos, Edison Electric Institute, 2010.

Because of these complications, we have separated Table 6 into separate sections, specifying where FTYs are commonly used or occasionally used. Figure 7 shows jurisdictions where FTYs are commonly or occasionally used. Jurisdictions where partially-forecasted test years are commonly or occasionally used are in the category titled Other, with the remaining jurisdictions counted as historical test years.

The ranks of US jurisdictions that allow the use of forward test years have swollen and now encompass about half of the total. Since our 2013 survey, electric utilities in Pennsylvania have successfully used FTYs and utilities in Arkansas and Indiana have received legislative authorization for their use.<sup>67</sup> Forward test years are the norm in Canadian regulation.

Figure 7: Test Year Policy by State



<sup>6</sup> In addition, another electric utility in Mississippi was recently permitted to use a forward-looking formula rate plan.

<sup>7</sup> FTYs in Arkansas can only be used in formula rate plans.

Table 6

# Test Year Approaches of US Jurisdictions

| Jurisdiction   | Notes  |
|--|--|
| <b>Fully-Forecasted Test Years Commonly Used (15)</b>                    |  |
| Alabama  | Utilities operate under forward-looking formula rate plans   |
| California   |  |
| Connecticut  |  |
| FERC   | Rate cases use forward test years but some formula rate plans use historical test years  |
| Florida  |  |
| Georgia  |  |
| Hawaii   |  |
| Maine  |  |
| Michigan   |  |
| Minnesota  |  |
| New York   |  |
| Oregon   |  |
| Rhode Island   |  |
| Tennessee  |  |
| Wisconsin  |  |
| <b>Fully-Forecasted Test Years Occasionally Used (9)</b>                 |  |
| Illinois   | Utilities use various test years including forward test years ("FTYs")   |
| Kentucky   | Utilities use various test years including FTYs  |
| Louisiana  | Utilities use various test years including FTYs  |
| Mississippi  | Both electric utilities operate under forward-looking formula rate plans. Gas formula rate plans rely on historical test years ("HTYs").   |
| New Mexico   | A recently passed law allows for use of FTYs, and at least one rate increase based on FTY evidence has been approved   |
| North Dakota   | Utilities use various test years including FTYs  |
| Pennsylvania   | Partially-forecasted test years have traditionally been the norm. However, a law allowing fully-forecasted test years passed in 2012 and several electric utility rate increases based on FTY evidence have been approved. |
| Utah   | Test year selection is part of the rate case and can be contested. Several recent rate cases have used FTYs.   |
| Wyoming  | Rocky Mountain Power has recently used FTYs  |
| <b>Partially-Forecasted Test Years Commonly or Occasionally Used (8)</b> |  |
| Arkansas   | Utilities have typically used partially forecasted test years in rate cases. However, a recent bill authorized the use of formula rates with either historical or forecasted test periods.                                 |
| Delaware   | Before restructuring FTY filings were common, but companies have used a mix of HTYs and partially-forecasted test years in recent filings  |
| District of Columbia   | PEPCO has filed rate cases using both hybrid and historical test years recently  |
| Idaho  |  |
| Maryland   | Utilities use various test years excluding FTYs  |
| Missouri   | Utilities have the option to file partially-forecasted test years  |
| New Jersey   |  |
| Ohio   |  |
| <b>Historical Test Years Commonly Used (20)</b>                          |  |
| Alaska   |  |
| Arizona  |  |
| Colorado   | Utilities have filed FTY evidence. However, no FTY rates have yet been approved but a recent case made extraordinary HTY adjustments.  |
| Indiana  | A recently passed law allows for use of FTYs, but no rate increase based on FTY evidence has been approved for an energy utility to date   |
| Iowa   |  |
| Kansas   |  |
| Massachusetts  |  |
| Montana  |  |
| Nebraska   | Nebraska has no electric IOUs. Gas companies are legally authorized to use FTYs but commonly use HTYs.   |
| Nevada   |  |
| New Hampshire  |  |
| North Carolina   |  |
| Oklahoma   |  |
| South Carolina   |  |
| South Dakota   |  |
| Texas  |  |
| Vermont  |  |
| Virginia   |  |
| Washington   |  |
| West Virginia  |  |

## V. Multiyear Rate Plans

Multiyear rate plans (“MRPs”) are designed to reduce regulatory cost, while increasing the utility incentive for efficient operation. Rate cases are held infrequently, most often at three to five year intervals. Between rate cases, rate escalations are based on a combination of automatic attrition relief mechanisms (“ARMs”) and cost trackers. The rate adjustments provided by ARMs are largely “external” in the sense that they give a utility an *allowance* for cost growth rather than reimbursement for its *actual* growth.

The “externalization” of ratemaking that ARMs and rate case moratoria achieve gives utilities more opportunity to profit from improved performance. Benefits of better performance can be shared between the utility and its customers. Performance incentives are strengthened despite streamlined regulation. Lower regulatory cost has special appeal in jurisdictions where numerous utilities must be regulated.

ARMs can cap growth in rates (e.g., customer charges and cents per kWh) or allowed revenue. Rate caps are favored when and where utilities are encouraged to bolster customer use of the grid. Revenue caps are usually combined with revenue decoupling mechanisms, and are often favored where utilities must cope with declining average use and/or policymakers strongly encourage DSM.

Several approaches to ARM design are well-established. These include multiyear cost forecasts, indexing, and hybrids. Indexing escalates rates (or revenue) automatically for inflation and sometimes also for growth in other cost drivers like the number of customers served. A hybrid approach to ARM design was developed in the US that involves indexing of revenue for O&M expenses and forecasts for capital cost revenue.

The indexing approach to ARM design has been more common for UDCs because their cost growth is relatively gradual and predictable. Hybrid and forecasted ARMs have historically been more common for vertically integrated electric utilities because occasional major plant additions have given their cost trajectories more of a “stairstep” pattern. However, this pattern is becoming less common in an era when demand growth is slower and fewer large power plants are under construction. Some VIEUs operating under MRPs have separate ARMs for generation and distribution.

Cost trackers are often used in MRPs to address changes in business conditions that are difficult to address using ARMs. A tracker that recovers a large portion of a utility’s capex cost can sometimes permit the company to operate under a multiyear freeze on rates for other non-energy costs. MRPs with “tracker/freeze” provisions for vertically integrated utilities often accord tracker treatment to costs of new or refurbished generating plants.<sup>8</sup> Trackers also address *force majeure* events like severe storms and changes in tax rates that affect costs.

Many MRPs feature earnings sharing mechanisms (“ESMs”) that automatically share earnings surpluses and/or deficits that result when the rate of return on equity (“ROE”) deviates from its regulated target. Some MRPs feature “off-ramps” that permit plan suspension when earnings are unusually high or low.

<sup>8</sup> A good example is the Generation Base Rate Adjustment in the current MRP of Florida Power & Light.

Plans often feature performance incentive mechanisms that are linked to the utility's service quality. With stronger cost containment incentives, there is a greater need for a link between revenue and service quality. Many MRPs combine revenue decoupling, the tracking of DSM expenses, and performance incentives for DSM. The stronger incentive to contain cost that MRPs provide then becomes a "fourth leg" for the DSM stool.

MRPs have long been used to regulate utilities where market-responsive rates and services are a priority. Infrequent rate cases reduce the regulatory cost of allocating the revenue requirement between a complex and changing mix of market offerings and lessen concerns about cross-subsidization. These benefits of MRPs can be enhanced by designing other plan provisions in ways that insulate core customers from potentially adverse consequences of marketing flexibility.

For example, in the early 1990s, Maine's electric utilities were still vertically integrated and needed flexibility in marketing power to paper and pulp customers, some of whom had cogeneration options. The commission, under the chairmanship of Thomas Welch (a former telecom industry lawyer) approved a succession of price cap plans for Central Maine Power which facilitated marketing flexibility. As a result, the company had more freedom to enter into special contracts. The stronger incentives the company had to offer the right discounts to customers at risk of bypass was acknowledged by the commission when costs were allocated in later rate cases.

MRPs were first widely used in the United States to regulate railroad, oil pipeline, and telecommunications companies. A major attraction was the ability of MRPs to afford utilities flexibility in serving markets with diverse competitive pressures and complex, changing customer needs. US and Canadian precedents for MRPs in the electricity and gas utility industries are indicated in Table 7 and Figures 8a and 8b.<sup>9</sup> In the US, MRPs have traditionally been most common in California and the Northeast. MRPs have been adopted by well-known VIEUs in Florida, North Dakota, and Virginia since our 2012 survey. A number of states have, additionally, experimented with "mini-MRPs" with terms of only two years. The forecast and tracker/freeze approaches to ARM design are most common currently in the US. The Federal Energy Regulatory Commission ("FERC") uses MRPs with index-based ARMs to regulate oil pipelines.

Canada is moving towards MRPs with index-based ARMs for gas and electric power distribution in all four populous provinces. In advanced economies overseas, MRPs are more the rule than the exception for utility regulation. Australia, Britain, and New Zealand are long time practitioners.

<sup>9</sup> Rate freezes without extensive supplemental funding from capital cost trackers are excluded from Table 7 and Figures 8a and 8b.

Figure 8a: Recent US Multiyear Rate Plan Precedents by State

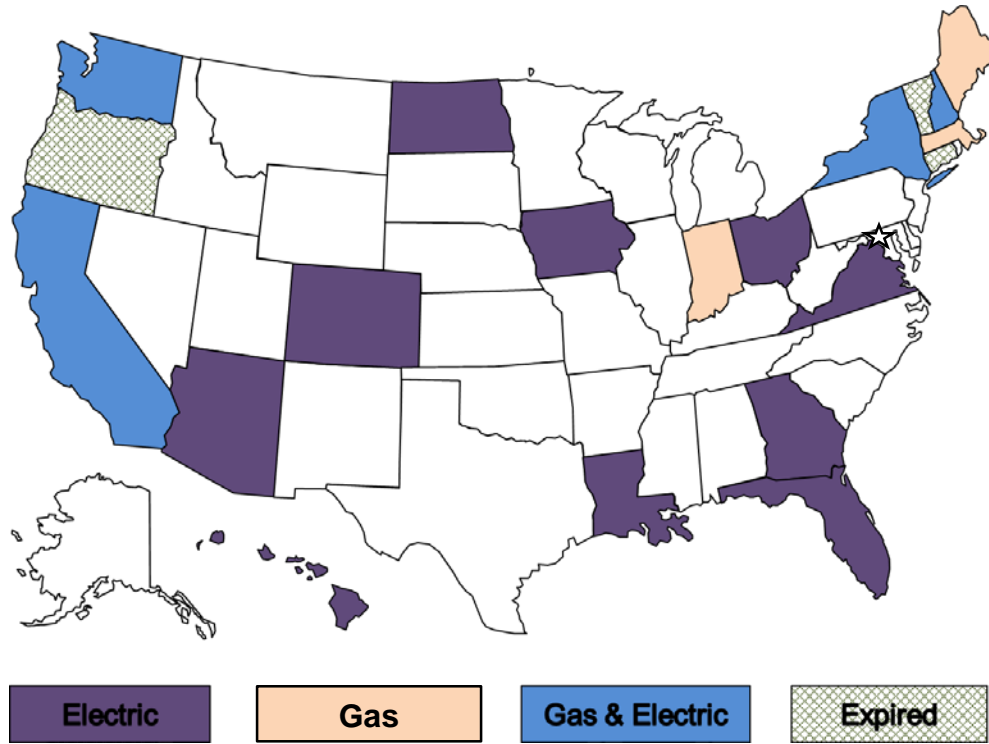


Figure 8b: Recent Canadian Multiyear Rate Plan Precedents by Province

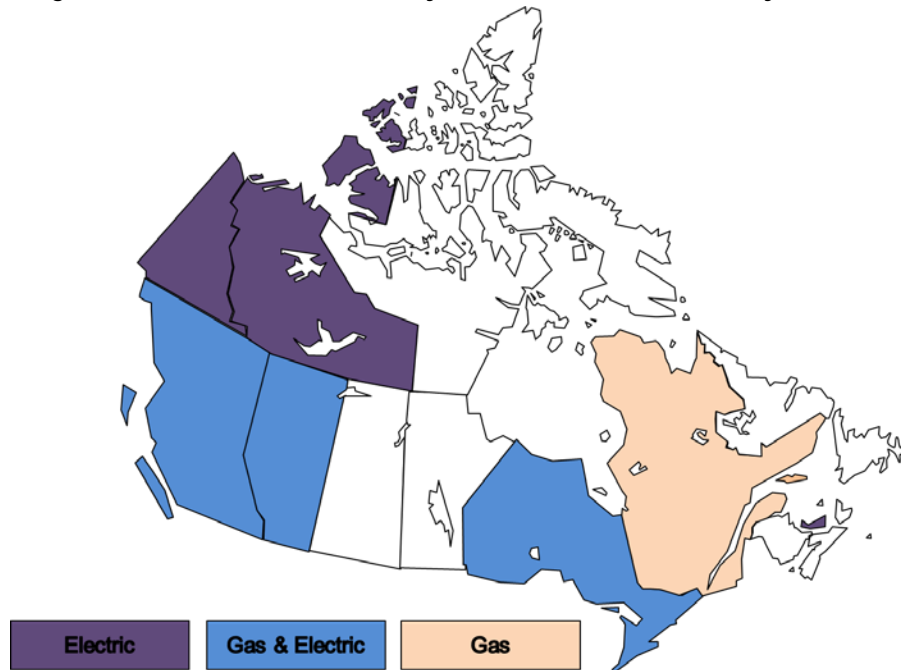


Table 7

# Multiyear Rate Plan Precedents <sup>1</sup>

| Jurisdiction         | Company  | Plan Term                        | Services Covered                                     | Rate Escalation Provisions   | Earnings Sharing Provisions  | Case Reference   |
|----------------------|--|----------------------------------|--|--|--|--|
| <b>Current</b>       |  |                                  |  |  |  |  |
| <b>United States</b> |  |                                  |  |  |  |  |
| AZ                   | Arizona Public Service                                 | 2012-2016                        | Bundled power service                                | Rate Freeze with an adjustment to account for purchase of SCE's share of Four Corners generating facility, additional capital and other cost trackers, LRAM                          | None   | Decision 73183; May 2012                                     |
| CA                   | Bear Valley Electric Service                           | 2013-2016                        | Power distribution                                   | Revenue Cap Stairstep  | None   | Decision 14-11-002; November 2014                            |
| CA                   | California Pacific Electric                            | 2013-2015                        | Power distribution                                   | Revenue Cap Index  | None   | Decision 12-11-030; November 2012                            |
| CA                   | Pacific Gas & Electric                                 | 2014-2016                        | Gas & bundled power service                          | Revenue Cap Stairstep  | None   | Decision 14-08-032; August 2014                              |
| CA                   | PacifiCorp   | 2011-2013, extended through 2016 | Bundled power service                                | Price Cap Index: Rates escalated by Global Insight forecast of CPI, less 0.5% productivity factor; supplemental funding for major plant additions can be requested in annual filings | None   | Decision 10-09-010; September 2010                           |
| CA                   | San Diego Gas & Electric                               | 2012-2015                        | Gas & bundled power service                          | Revenue Cap Stairstep  | None   | Decision 13-05-010; May 2013                                 |
| CA                   | Southern California Gas                                | 2012-2015                        | Gas  | Revenue Cap Stairstep  | None   | Decision 13-05-010; May 2013                                 |
| CA                   | Southwest Gas  | 2014-2018                        | Gas  | Revenue Cap Stairstep  | None   | Decision 14-06-028; June 2014                                |
| CO                   | Public Service of Colorado                             | 2015-2017                        | Bundled power service                                | Rate Freeze with multiple capital cost trackers  | Sharing of overearnings only up to earnings cap  | Decision C15-0292; March 2014                                |
| FL                   | Florida Power & Light                                  | 2013-2016                        | Bundled power service                                | Rate Freeze with multiple capital and other cost trackers  | None   | Docket 120015-EI; December 2012                              |
| FL                   | Gulf Power   | 2014-June 2017                   | Bundled power service                                | Price Cap Stairstep through 2015, Rate Freeze beyond   | None   | Docket 130140-EI; December 2013                              |
| FL                   | Duke Energy Florida (formerly Progress Energy Florida) | 2012-2016, extended through 2018 | Bundled power service                                | Rate Freeze with one step plus capital and other cost trackers   | None   | Dockets 120022-EI and 130208-EI; 2012 and November 2013      |
| FL                   | Tampa Electric   | 2013-2017                        | Bundled power service                                | Revenue Cap Stairstep  | None   | Docket 130040-EI   |
| GA                   | Georgia Power  | 2014-2016                        | Bundled power service                                | Revenue Cap Stairstep  | Sharing of overearnings only with deadband   | Docket 36989; December 2013                                  |
| HI                   | Hawaiian Electric Company                              | 2012-open                        | Bundled power service                                | Revenue Cap Hybrid   | Sharing of overearnings only without deadband, multiple sharing levels                                   | Dockets 2008-0274 & 2008-0083                                |
| HI                   | Hawaiian Electric Light Company                        | 2013-open                        | Bundled power service                                | Revenue Cap Hybrid   | Sharing of overearnings only without deadband, multiple sharing levels                                   | Dockets 2008-0274 & 2009-0164                                |
| HI                   | Maui Electric  | 2013-open                        | Bundled power service                                | Revenue Cap Hybrid   | Sharing of overearnings only without deadband, multiple sharing levels                                   | Dockets 2008-0274 & 2009-0163                                |
| IA                   | MidAmerican Energy                                     | 2014-2017                        | Bundled power service                                | Revenue Cap Stairstep for 2014-2016, Rate Freeze for 2017  | Sharing of overearnings only with deadband up to earnings cap  | RPU-2013-0004  |
| IN                   | Northern Indiana Public Service Company                | 2015-2020                        | Gas  | Rate Freeze with capital and other cost trackers, possible reopening in 2017   | Earnings cap implemented if company overearns since last rate case or prior 59 months, whichever is less | Cause 43894 and 44403 TDSIC 1 (August 2013 and January 2015) |
| LA                   | Cleco Power  | 2014-2017                        | Bundled power service                                | Rate Freeze with capital and other cost trackers   | Sharing of overearnings only with deadband up to earnings cap  | Docket U-32779; June 2014                                    |
| MA                   | Bay State Gas  | 2015-2018                        | Gas  | Revenue Cap Stairstep for 2015, 2016, Revenue Freeze through October 2018  | None   | DPU 15-150; October 2015                                     |
| ME                   | Summit Natural Gas of Maine                            | 2013-2022                        | Gas  | Price Cap Indexing: 75% of change in GDPPi   | None until company has 1,000 or more customers, then sharing of under/overearnings evenly with deadband  | Docket 2012-258; January 2013                                |
| NH                   | Northern Utilities                                     | May 2014 - April 2017            | Gas  | Revenue Cap Stairstep for 2014-2015, Rate Freeze in 2016   | Sharing of overearnings only with deadband up to earning cap   | DG 13-086; April 2014  |
| NH                   | Public Service Company of New Hampshire                | 2010-2015                        | Power distribution (generation regulated separately) | Revenue Cap Stairstep: Rate increases allowed to account for distribution capital additions in 2010-2013   | Sharing of overearnings only with deadband   | DE 09-035  |
| NH                   | Unitil Energy Systems                                  | 2011-2016                        | Power distribution                                   | Revenue Cap Stairstep: Rate increases allowed to account for distribution capital additions in 2011-2013   | Sharing of overearnings only with deadband   | DE 10-055  |



Table 7 (cont'd)

| Jurisdiction                  | Company                              | Plan Term                         | Services Covered            | Rate Escalation Provisions   | Earnings Sharing Provisions   | Case Reference   |
|-------------------------------|--------------------------------------|-----------------------------------|-----------------------------|--|---|--|
| <b>Current (cont'd)</b>       |                                      |                                   |                             |  |   |  |
| <b>United States (cont'd)</b> |                                      |                                   |                             |  |   |  |
| NY                            | Central Hudson Gas & Electric        | 2015-2018                         | Gas & power distribution    | Revenue Cap Stairstep  | Sharing of overearnings with deadband and multiple sharing bands                            | Cases 14-E-0318, 14-G-0319   |
| NY                            | Consolidated Edison                  | 2014-2016                         | Gas                         | Revenue Cap Stairstep  | Sharing of overearnings only with deadband and multiple bands                               | Case 13-G-0031   |
| NY                            | Corning Natural Gas                  | 2012-2015                         | Gas                         | Revenue Cap Stairstep  | Sharing of overearnings only with deadband and multiple bands                               | Case 11-G-0280   |
| NY                            | Orange & Rockland Utilities          | November 2015-October 2018        | Gas                         | Revenue Cap Stairstep  | Sharing of overearnings only with deadband and multiple sharing bands                       | Case 14-G-0494   |
| ND                            | Northern States Power - Minnesota    | 2013-2016                         | Bundled power service       | Revenue Cap Stairstep for 2013-2015, Rate Freeze in 2016   | Sharing of overearnings only without deadband, earnings adjusted for effects of weather     | Case PU-12-813   |
| OH                            | First Energy Ohio                    | 2011-2014, later extended to 2016 | Power distribution          | Rate Freeze supplemented by capital and other cost trackers  | Company subject to Significantly Excessive Earnings Test conducted annually                 | Cases 11-388-EL-SSO, 12-1230-EL-SSO                                      |
| US                            | All                                  | 2011-2016                         | Oil pipelines               | Price Cap Index: PPI-Finished Goods + 2.65%  | None  | Docket RM10-25-000; December 2010  |
| VA                            | Appalachian Power                    | 2014-2017                         | Bundled power service       | Rate Freeze supplemented by capital and other cost trackers  | None  | Senate Bill 1349   |
| VA                            | Virginia Electric Power              | 2015-2019                         | Bundled power service       | Rate Freeze supplemented by capital and other cost trackers  | None  | Senate Bill 1349   |
| WA                            | Puget Sound Energy                   | 2013-2016                         | Gas & bundled power service | Revenue Cap Stairstep  | Sharing of overearnings only without deadband, equal sharing between company and customers  | Dockets UE-121697 and UG-121705  |
| <b>Canada</b>                 |                                      |                                   |                             |  |   |  |
| Alberta                       | Altgas Utilities and ATCO Gas        | 2013-2017                         | Gas                         | Revenue per Customer Indexing: Input price index - 1.16%, + capital cost trackers  | None  | Decision 2012-237  |
| Alberta                       | ATCO Electric, EPCOR, Fortis Alberta | 2013-2017                         | Power distribution          | Price Cap Index: Input Price Index - 1.16%, + capital cost trackers  | None  | Decision 2012-237  |
| British Columbia              | FortisBC                             | 2014-2018                         | Bundled power service       | Revenue Cap Index: I-Factor - 1.03%, + capital cost tracker for CPCN projects  | Symmetric without deadband  | Project #3698719, Decision; September 2014                               |
| British Columbia              | FortisBC Energy                      | 2014-2018                         | Gas                         | Revenue Cap Index: I-Factor - 1.1%, + capital cost tracker for CPCN projects   | Symmetric without deadband  | Project #3698715, Decision; September 2014                               |
| Ontario                       | All unless company opts out          | 2014-2018                         | Power distribution          | Price Cap Index: Input price index - (0%+stretch); stretch factor reassigned annually, + capital cost tracker option available | None  | EB-2010-0379 Report of the Board; November 2013                          |
| Ontario                       | Horizon Utilities                    | 2015-2019                         | Power distribution          | Revenue Cap Stairstep  | Sharing of overearnings only without deadband   | EB-2014-0002; December 2014  |
| Ontario                       | Hydro One Networks                   | 2015-2017                         | Power distribution          | Revenue Cap Stairstep  | None  | EB-2014-0247; March 2015   |
| Ontario                       | Enbridge Gas Distribution            | 2014-2018                         | Gas                         | Revenue Cap Stairstep  | Sharing of overearnings only without deadband   | EB-2012-0459, Decision with Reasons; July 2014                           |
| Ontario                       | Union Gas Limited                    | 2014-2018                         | Gas                         | Revenue Cap Index: 40% of growth in GDP-IPI  | Sharing of overearnings only with deadband, multiple sharing ranges                         | EB 2013-0202 Decision; October 2013                                      |
| Prince Edward Island          | Maritime Electric                    | 2013-2016                         | Bundled power service       | Price Cap Stairstep: Bill defines rates for each year.   | Earnings cap set at allowed ROE, no floor   | Bill 26 (2012) Electric Power (Energy Accord Continuation) Amendment Act |
| Quebec                        | Gazifere                             | 2011-2015                         | Gas distribution            | Price Cap Index  | Sharing of overearnings only without deadband and multiple sharing bands up to earnings cap | D-2010-112; August 2010  |
| Yukon Territory               | Yukon Electrical Company, Limited    | 2013-2015                         | Bundled power service       | Revenue Cap Stairstep  | None  | Board Order 2014-06; April 2014  |

Table 7 (cont'd)

| Jurisdiction                 | Company                     | Plan Term | Services Covered                  | Rate Escalation Provisions | Earnings Sharing Provisions  | Case Reference  |
|------------------------------|-----------------------------|-----------|-----------------------------------|----------------------------|--|---|
| <b>Current (cont'd)</b>      |                             |           |                                   |                            |  |   |
| <b>Great Britain</b>         |                             |           |                                   |                            |  |   |
| Great Britain                | All                         | 2013-2021 | Gas and power transmission        | British-Style Hybrid       | Not reviewed   | RIIO-T1 Final Proposals, April and December 2012  |
| Great Britain                | All                         | 2013-2021 | Gas distribution                  | British-Style Hybrid       | Not reviewed   | RIIO-GD1 Final Proposals, December 2013   |
| Great Britain                | All                         | 2015-2023 | Power distribution                | British-Style Hybrid       | Variations of cost from budgets shared through Information Quality Incentive Mechanism | RIIO-ED1 Final Proposals, December 2014   |
| <b>Australia/New Zealand</b> |                             |           |                                   |                            |  |   |
| Australia                    | ActewAGL                    | 2015-2019 | Power transmission & distribution | Australian-Style Hybrid    | Not reviewed   | Final Decision ActewAGL distribution determination 2015-16 to 2018-19; April 2015             |
| Australia                    | Ausgrid                     | 2015-2019 | Power distribution                | Australian-Style Hybrid    | Not reviewed   | Final Decision Ausgrid distribution determination 2015-16 to 2018-19; April 2015              |
| Australia                    | Directlink                  | 2015-2020 | Power transmission                | Australian-Style Hybrid    | Not reviewed   | Final Decision Directlink transmission determination 2015-16 to 2019-20; April 2015           |
| Australia                    | Endeavour Energy            | 2015-2019 | Power distribution                | Australian-Style Hybrid    | Not reviewed   | Final Decision Endeavour Energy distribution determination 2015-16 to 2018-19; April 2015     |
| Australia                    | Energex                     | 2015-2020 | Power distribution                | Australian-Style Hybrid    | Not reviewed   | Final Decision Energex determination 2015-16 to 2019-20                                       |
| Australia                    | Ergon Energy                | 2015-2020 | Power distribution                | Australian-Style Hybrid    | Not reviewed   | Final Decision Ergon Energy determination 2015-16 to 2019-20                                  |
| Australia                    | Essential Energy            | 2015-2019 | Power distribution                | Australian-Style Hybrid    | Not reviewed   | Final Decision Essential Energy distribution determination 2015-16 to 2018-19; April 2015     |
| Australia                    | Jemena Gas Networks         | 2015-2020 | Gas distribution                  | Australian-Style Hybrid    | Not reviewed   | Final Decision Jemena Gas Networks (NSW) Ltd Access Arrangement 2015-20; June 2015            |
| Australia                    | SA Power Networks           | 2015-2020 | Power distribution                | Australian-Style Hybrid    | Not reviewed   | Final Decision SA Power Networks determination 2015-16 to 2019-20                             |
| Australia                    | TasNetworks                 | 2015-2019 | Power transmission                | Australian-Style Hybrid    | Not reviewed   | Final Decision TasNetworks transmission determination 2015-16 to 2018-19; April 2015          |
| Australia                    | TransGrid                   | 2015-2018 | Power transmission                | Australian-Style Hybrid    | Not reviewed   | Final Decision TransGrid transmission determination 2015-16 to 2017-18; July 2015             |
| Australia                    | Power & Water               | 2014-2019 | Power transmission & distribution | Australian-Style Hybrid    | Not reviewed   | 2014 Networks Price Determination Final Determination Part-A Statement of Reasons; April 2014 |
| Australia                    | All Queensland Distributors | 2011-2016 | Gas distribution                  | Australian-Style Hybrid    | Not reviewed   | Access Arrangement Proposal for Qld Gas Network, Final Decision; June 2011                    |
| Australia                    | Energex and Ergon Energy    | 2010-2015 | Power distribution                | Australian-Style Hybrid    | Not reviewed   | Queensland Distribution Determination 2011-11 to 2014-15 (Final Decision)                     |
| Australia                    | Envestra                    | 2011-2016 | Gas distribution                  | Australian-Style Hybrid    | Not reviewed   | Access Arrangement Proposal for the SA Gas Network, Final Decision; June 2011                 |
| Australia                    | All Victorian Distributors  | 2013-2017 | Gas distribution                  | Australian-Style Hybrid    | Not reviewed   | Access Arrangement Final Decision; March 2013   |

Table 7 (cont'd)

| Jurisdiction                          | Company                      | Plan Term                   | Services Covered            | Rate Escalation Provisions                   | Earnings Sharing Provisions   | Case Reference  |
|---------------------------------------|------------------------------|-----------------------------|-----------------------------|--|---|---|
| <b>Current (cont'd)</b>               |                              |                             |                             |  |   |   |
| <b>Australia/New Zealand (cont'd)</b> |                              |                             |                             |  |   |   |
| Australia                             | CitiPower                    | 2011-2015                   | Power distribution          | Australian-Style Hybrid                      | Not reviewed  | CitiPower Pty Distribution Determination 2011-2015; September 2012                              |
| Australia                             | Powercor                     | 2011-2015                   | Power distribution          | Australian-Style Hybrid                      | Not reviewed  | Powercor Australia Ltd Distribution Determination 2011-2015; October 2012                       |
| Australia                             | Jemena Electricity Networks  | 2011-2015                   | Power distribution          | Australian-Style Hybrid                      | Not reviewed  | Jemena Electricity Networks (Victoria) Ltd Distribution Determination 2011-2015; September 2012 |
| Australia                             | SP AusNet                    | 2011-2015                   | Power distribution          | Australian-Style Hybrid                      | Not reviewed  | SPI Electricity Pty Ltd Distribution Determination 2011-2015; August 2013                       |
| Australia                             | United Energy Distribution   | 2011-2015                   | Power distribution          | Australian-Style Hybrid                      | Not reviewed  | United Energy Distribution Distribution Determination 2011-2015; September 2012                 |
| New Zealand                           | All but Orion Electric       | 2015-2020                   | Power distribution          | Revenue Cap Index: CPI-0% for most companies | None  | Project no. 14.07/14118; November 2014  |
| New Zealand                           | All                          | 2013-2017                   | Gas distribution            | New Zealand-Style Hybrid                     | Not reviewed  | Project no. 15.01/13199   |
| New Zealand                           | All                          | 2013-2017                   | Gas transmission            | New Zealand-Style Hybrid                     | Not reviewed  | Project no. 15.01/13199   |
| <b>Historic</b>                       |                              |                             |                             |  |   |   |
| <b>United States</b>                  |                              |                             |                             |  |   |   |
| CA                                    | Bear Valley Electric Service | 2009-2012                   | Power distribution          | Revenue Cap Stairstep                        | None  | Decision 09-10-028; October 2009  |
| CA                                    | Pacific Gas & Electric       | 2011-2013                   | Gas & bundled power service | Revenue Cap Stairstep                        | None  | Decision 11-05-018; May 2011  |
| CA                                    | Pacific Gas & Electric       | 2007-2010                   | Gas & bundled power service | Revenue Cap Stairstep                        | None  | Decision 07-03-044; March 2007  |
| CA                                    | Pacific Gas & Electric       | 2004-2006                   | Gas & bundled power service | Revenue Cap Index                            | None  | Decision 04-05-055; May 2004  |
| CA                                    | Pacific Gas & Electric       | 1993-1995                   | Gas & bundled power service | Revenue Cap Hybrid                           | None  | Decision 92-12-057; December 1992   |
| CA                                    | Pacific Gas & Electric       | 1990-1992                   | Gas & bundled power service | Revenue Cap Hybrid                           | None  | Decision 89-12-057; December 1989   |
| CA                                    | Pacific Gas & Electric       | 1987-1989                   | Gas & bundled power service | Revenue Cap Hybrid                           | None  | Decision 86-12-092; December 1986   |
| CA                                    | Pacific Gas & Electric       | 1984-1986                   | Gas & bundled power service | Revenue Cap Hybrid                           | None  | Decisions 83-12-068; December 1983 and 85-12-076; December 1985                                 |
| CA                                    | PacifiCorp                   | 2007-2009, extended to 2010 | Bundled power service       | Price Cap Index                              | None  | Decisions 06-12-011; December 2006 and 09-04-017; April 2009                                    |
| CA                                    | PacifiCorp                   | 1994-1996                   | Bundled power service       | Price Cap Index                              | None  | Decision 93-12-106; December 1993   |
| CA                                    | PacifiCorp                   | 1984-1987                   | Bundled power service       | Revenue Cap Hybrid                           | None  | Decisions 84-07-150; July 1984 and 85-12-076; December 1985                                     |
| CA                                    | San Diego Gas & Electric     | 2008-2011                   | Gas & bundled power service | Revenue Cap Stairstep                        | None  | Decision 08-07-046; July 2008   |
| CA                                    | San Diego Gas & Electric     | 2005-2007                   | Gas & bundled power service | Revenue Cap Index                            | Sharing of overearnings only with deadband and multiple sharing bands   | Decision 05-03-025; March 2005  |
| CA                                    | San Diego Gas and Electric   | 1999-2002                   | Gas & power distribution    | Price Cap Index                              | Sharing of overearnings only above deadband with multiple sharing bands | Decision 99-05-030; May 1999  |

Table 7 (cont'd)

| Jurisdiction                  | Company                            | Plan Term                     | Services Covered            | Rate Escalation Provisions  | Earnings Sharing Provisions   | Case Reference  |
|-------------------------------|------------------------------------|-------------------------------|-----------------------------|---|---|---|
| <b>Historic (cont'd)</b>      |                                    |                               |                             |   |   |   |
| <b>United States (cont'd)</b> |                                    |                               |                             |   |   |   |
| CA                            | San Diego Gas & Electric           | 1994-1999                     | Gas & bundled power service | Revenue Cap Hybrid  | Sharing of overearnings only with deadband and multiple sharing bands up to an earnings cap           | Decision 94-08-023; August 1984                         |
| CA                            | San Diego Gas & Electric           | 1989-1993                     | Gas & bundled power service | Revenue Cap Hybrid  | None  | Decision 88-12-085; December 1988                       |
| CA                            | San Diego Gas & Electric           | 1986-1988                     | Gas & bundled power service | Revenue Cap Hybrid  | None  | Decision 85-12-108; December 1985                       |
| CA                            | Sierra Pacific Power               | 2009-2011, extended to 2012   | Bundled power service       | Price Cap Index   | None  | Decision 09-10-041; October 2009                        |
| CA                            | Sierra Pacific Power               | 1990-1992                     | Bundled power service       | Revenue Cap Hybrid  | None  | Decision 90-07-060; July 1990                           |
| CA                            | Southern California Edison         | 2012-2014                     | Bundled power service       | Revenue Cap Hybrid  | None  | Decision 12-11-051; November 2012                       |
| CA                            | Southern California Edison         | 2009-2011                     | Bundled power service       | Revenue Cap Stairstep   | None  | Decision 09-03-025; March 2009                          |
| CA                            | Southern California Edison         | 2006-2008                     | Bundled power service       | Revenue Cap Hybrid  | None  | Decision 06-05-016; May 2006                            |
| CA                            | Southern California Edison         | 2004-2006                     | Bundled power service       | Revenue Cap Hybrid  | None  | Decision 04-07-022; July 2004                           |
| CA                            | Southern California Edison         | 1997-2001                     | Power distribution          | Price Cap Index   | Sharing of over/underearnings outside deadband with multiple sharing bands                            | Decision 96-09-092; September 1996                      |
| CA                            | Southern California Edison         | 1986-1991                     | Bundled power service       | Revenue Cap Hybrid  | None  | Decision 85-12-076; December 1985                       |
| CA                            | Southern California Gas            | 2008-2011                     | Gas                         | Revenue Cap Stairstep   | None  | Decision 08-07-046; July 2008                           |
| CA                            | Southern California Gas            | 2005-2007                     | Gas                         | Revenue Cap Index   | Sharing of overearnings only with deadband and multiple sharing bands                                 | Decision 05-03-025; March 2005                          |
| CA                            | Southern California Gas            | 1998-2003                     | Gas                         | Revenue Cap Index   | Sharing of over/underearnings outside deadband with multiple sharing bands                            | Decision 97-07-054; July 1997                           |
| CA                            | Southern California Gas            | 1990-1993                     | Gas                         | Revenue Cap Hybrid  | None  | Decision 90-01-016; January 1990                        |
| CA                            | Southern California Gas            | 1985-1989                     | Gas                         | Revenue Cap Hybrid  | None  | 1984, 85-12-076; December 1985, and 87-05-027; May 1987 |
| CA                            | Southwest Gas                      | 2009-2013                     | Gas                         | Revenue Cap Stairstep   | None  | Decision 08-11-048; November 2008                       |
| CO                            | Public Service Company of Colorado | 2012-2014                     | Bundled power service       | Revenue Cap Stairstep   | Sharing of overearnings only without deadband, multiple sharing bands up to earnings cap              | Decision C12-0494                                       |
| CT                            | Connecticut Light & Power          | 2004-2007                     | Power distribution          | Revenue Cap Stairstep   | Even sharing of overearning without deadband  | Docket 03-07-02   |
| CT                            | United Illuminating                | 2006-2008                     | Power distribution          | Revenue Cap Stairstep   | Even sharing of overearning without deadband  | Docket 05-06-04   |
| FL                            | Florida Power & Light              | 2006-2009                     | Bundled power service       | Rate Freeze with exception for new generating facilities after they are in service and multiple capital and other cost trackers | None  | Docket 050045-EI  |
| FL                            | Progress Energy Florida            | 2006-2009                     | Bundled power service       | Rate Freeze with 1 step to reflect generation brought in-service and multiple capital and other cost trackers                   | None  | Docket 050078-EI  |
| GA                            | Georgia Power                      | 2011-2013                     | Bundled power service       | Revenue Cap Stairstep; Rate increases permitted for DSM and major generation plant additions                                    | Sharing of overearnings only with deadband  | Docket 31958  |
| IA                            | MidAmerican Energy                 | 2001-2005, extended to 2013   | Bundled power service       | Rate Freeze with nuclear capital and other cost trackers  | Sharing of overearnings only in multiple sharing bands, deadband not applicable due to no allowed ROE | Dockets RPU-01-3 and RPU-2012-0001                      |
| LA                            | Cleco Power                        | 2009-2014                     | Bundled power service       | Rate Freeze with capital cost tracker   | Sharing of overearnings only with deadband up to earnings cap   | Order U-30689   |
| MA                            | Bay State Gas                      | 2006-2015, terminated in 2009 | Gas distribution            | Price Cap Index   | 75-25 shareholders-ratepayers sharing around deadband   | Docket DTE 05-27  |
| MA                            | Berkshire Gas                      | February 2002-January 2012    | Gas distribution            | No adjustment until September 2004, then Price Cap Index  | None  | Docket D.T.E. 01-56                                     |

Table 7 (cont'd)

| Jurisdiction                  | Company                               | Plan Term                            | Services Covered         | Attrition Relief Mechanism   | Earnings Sharing Provisions   | Case Reference                              |
|-------------------------------|---------------------------------------|--------------------------------------|--------------------------|--|---|---|
| <b>Historic (cont'd)</b>      |                                       |                                      |                          |  |   |   |
| <b>United States (cont'd)</b> |                                       |                                      |                          |  |   |   |
| MA                            | Boston Gas (I)                        | 1997-2001                            | Gas distribution         | Price Cap Index  | 75-25 shareholders-ratepayers sharing around deadband   | Docket D.P.U. 96-50-C (Phase I); May 1997   |
| MA                            | Boston Gas (II)                       | 2004-2013, Terminated in 2010        | Gas distribution         | Price Cap Index  | 75-25 shareholders-ratepayers sharing around deadband   | Docket DTE 03-40                            |
| MA                            | Blackstone Gas                        | November 1, 2004 - October 31, 2009  | Gas distribution         | Price Cap Index  | Even sharing of earnings above/below deadband   | Docket D.T.E. 04-79                         |
| MA                            | Nstar                                 | 2006-2012                            | Power distribution       | Price Cap Index  | Deadband with 50-50 sharing of over and underearnings   | Docket D.T.E. 05-85                         |
| ME                            | Bangor Gas                            | 2000-2009, extended to 2012          | Gas distribution         | Price Cap Index  | Even sharing of overearnings only. No allowed ROE established for company and no determination of a deadband.                                       | Docket 970795; June 1998                    |
| ME                            | Bangor Hydro Electric (I)             | 1998-2000                            | Power distribution       | Price Cap Index  | 50/50 sharing around deadband   | Docket 97-116; March 1998                   |
| ME                            | Central Maine Power (I)               | 1995-1999                            | Bundled power service    | Price Cap Index  | Even sharing of earnings above/below deadband   | Docket 92-345 Phase II; January 1995        |
| ME                            | Central Maine Power (II)              | 2001-2007                            | Power distribution       | Price Cap Index  | 50-50 sharing below deadband  | Docket 99-666; November 2000                |
| ME                            | Central Maine Power (III)             | 2009-2013                            | Power distribution       | Price Cap Index: GDPPI - 1%, separate capital cost tracker for AMI | 50-50 sharing above 11% ROE   | Docket 2007-215                             |
| ME                            | Maine Natural Gas                     | 2010-2012                            | Gas                      | Revenue Cap Stairstep with steps conditioned on company earnings   | None  | Docket 2009-67                              |
| NY                            | Brooklyn Union Gas                    | October 1, 1991 - September 30, 1994 | Gas                      | Revenue Cap Stairstep  | Sharing of overearnings only without deadband   | Case 90-G-0981, Opinion 91-21; October 1991 |
| NY                            | Brooklyn Union Gas                    | October 1, 1994 - September 30, 1997 | Gas                      | Revenue Cap Stairstep  | Sharing of overearnings only without deadband and multiple sharing bands  | Case 93-G-0941, Opinion 94-22; October 1994 |
| NY                            | Central Hudson Gas & Electric         | 2010-2013                            | Gas & power distribution | Revenue Cap Stairstep  | Sharing of overearnings with deadband and multiple sharing bands  | Case 09-E-0588                              |
| NY                            | Central Hudson Gas & Electric         | July 1, 2006 - June 30, 2009         | Gas & power distribution | Price Cap Stairstep  | Sharing of overearnings only with deadband, multiple sharing bands up to earnings cap   | Case 05-E-0934 & Case 05-G-0935; July 2006  |
| NY                            | Consolidated Edison                   | 2010-2013                            | Gas                      | Revenue Cap Stairstep  | Sharing of overearnings only with deadband that varies annually and multiple sharing bands  | Case 09-G-0795                              |
| NY                            | Consolidated Edison                   | 2007-2010                            | Gas                      | Revenue Cap Stairstep  | Even sharing of overearnings only above deadband, sharing threshold adjustable depending on work with DSM program administrator for first year only | Case 06-G-1332                              |
| NY                            | Consolidated Edison                   | October 1, 1994 - September 30, 1997 | Gas                      | Revenue Cap Stairstep  | Even sharing of overearnings only above deadband  | Case 93-G-0996, Opinion 94-2; October 1994  |
| NY                            | Consolidated Edison                   | 2010-2013                            | Power distribution       | Revenue Cap Stairstep  | Sharing of overearnings only above deadband with multiple sharing bands   | Case 09-E-0428                              |
| NY                            | Consolidated Edison                   | April 1, 2005 - March 31, 2008       | Power distribution       | Price Cap Stairstep  | Sharing of overearnings only with multiple bands. No allowed ROE approved.  | Case 04-E-0572; March 2005                  |
| NY                            | Consolidated Edison                   | 1992-1995                            | Bundled power service    | Revenue Cap Stairstep  | Even sharing of overearnings with varying allowed ROE and no deadband   | Opinion 92-8                                |
| NY                            | Keyspan Energy Delivery - Long Island | 2010-2012                            | Gas                      | Revenue Cap Stairstep  | Sharing of overearnings only above deadband with multiple sharing bands, sharing threshold adjustable for good DSM performance                      | Case 06-G-1185                              |
| NY                            | Keyspan Energy Delivery - New York    | 2010-2012                            | Gas                      | Revenue Cap Stairstep  | Sharing of overearnings only above deadband with multiple sharing bands, sharing threshold adjustable for good DSM performance                      | Case 06-G-1186                              |
| NY                            | Long Island Lighting Company          | December 1, 1993 - November 30, 1996 | Gas                      | Revenue Cap Stairstep  | Even sharing of overearnings only with deadband   | Case 93-G-002, Opinion 93-23; December 1993 |
| NY                            | Long Island Lighting Company          | 1992-1994                            | Bundled power service    | Revenue Cap Stairstep  | Even sharing of overearnings only without deadband  | Opinion 92-8                                |

Table 7 (cont'd)

| Jurisdiction                  | Company                          | Plan Term  | Services Covered            | Attrition Relief Mechanism                                  | Earnings Sharing Provisions  | Case Reference   |
|-------------------------------|----------------------------------|--|-----------------------------|---|--|--|
| <b>Historic (cont'd)</b>      |                                  |  |                             |   |  |  |
| <b>United States (cont'd)</b> |                                  |  |                             |   |  |  |
| NY                            | New York State Electric & Gas    | 2010-2013  | Gas & power distribution    | Revenue Cap Stairstep                                       | Sharing of overearnings only with deadband that varies annually and multiple sharing bands   | Case 09-E-0715   |
| NY                            | New York State Electric & Gas    | August 1, 1995 - July 31, 1998, Years 2 and 3 not implemented due to restructuring | Bundled power service       | Revenue Cap Stairstep                                       | Sharing of overearnings only with annually varying deadbands   | Case 94-M-0349, Opinion 95-27; September 1995                                |
| NY                            | New York State Electric & Gas    | December 1, 1993 - August 31, 1995   | Gas & bundled power service | Revenue Cap Stairstep                                       | Even sharing of overearnings only above deadband   | Case 92-G-1086, Opinion 93-22; November 1993                                 |
| NY                            | Niagara Mohawk                   | July 1, 1990 - December 31, 1992   | Gas & bundled power service | Revenue Cap Stairstep                                       | Sharing of overearnings only without deadband up to earnings cap   | Case 29327, Opinion 89-37; June 1991   |
| NY                            | Orange & Rockland Utilities      | 2009-2012  | Gas                         | Revenue Cap Stairstep                                       | Sharing of overearnings only beyond deadband and multiple sharing bands  | Case 08-G-1398   |
| NY                            | Orange & Rockland Utilities      | November 1, 2006 - October 31, 2009  | Gas                         | Price Cap Stairstep   | Sharing of overearnings only beyond deadband and multiple sharing bands  | Case 05-G-1494; October 2006   |
| NY                            | Orange & Rockland Utilities      | November 1, 2003 - October 31, 2006  | Gas                         | Price Cap Stairstep   | Even sharing of overearnings only without deadband   | Case 02-G-1553; October 2003   |
| NY                            | Orange & Rockland Utilities      | 2012-2015  | Power distribution          | Revenue Cap Stairstep                                       | Sharing of overearnings only with deadband and multiple bands  | Case 11-E-0408   |
| NY                            | Orange & Rockland Utilities      | 2008-2011  | Power distribution          | Revenue Cap Stairstep                                       | Sharing of overearnings only above deadband with multiple sharing bands  | Case 07-E-0949   |
| NY                            | Orange & Rockland Utilities      | 1991-1993  | Bundled power service       | Revenue Cap Stairstep                                       | Even sharing of overearnings above deadband  | Case 89-E-175  |
| NY                            | Rochester Gas & Electric         | 2010-2013  | Gas & power distribution    | Revenue Cap Stairstep                                       | Sharing of overearnings only with deadband that varies annually and multiple sharing bands   | Case 09-E-0717   |
| NY                            | Rochester Gas & Electric         | July 1, 1993 - June 30, 1996   | Gas & bundled power service | Revenue Cap Stairstep                                       | Earnings cap only  | Case 92-G-0741, Opinion No. 93-19; August 1993                               |
| OH                            | AEP-Ohio                         | 2012-2015  | Power distribution          | Rate Freeze supplemented by capital and other cost trackers | Company subject to Significantly Excessive Earnings Test conducted annually  | Case No. 11-346-EL-SSO; August 2012  |
| OH                            | Cincinnati Gas & Electric        | 2009-2011  | Power generation            | Price Cap Stairstep   | Company subject to Significantly Excessive Earnings Test conducted annually  | Case 08-920-EL-SSO   |
| OR                            | PacifiCorp                       | 1998-2001  | Power distribution          | Revenue Cap Index   | Sharing of over/underearning outside deadband in multiple sharing bands  | Order No. 98-191   |
| US                            | All                              | 2006-2011  | Oil pipelines               | Price Cap Index: PPI-Finished Goods + 1.3%                  | None   | RM05-22-000  |
| US                            | All                              | 2001-2006  | Oil pipelines               | Price Cap Index: PPI-Finished Goods + 0%                    | None   | RM00-11-000  |
| US                            | All                              | 1995-2001  | Oil pipelines               | Price Cap Index: PPI-Finished Goods - 1%                    | None   | RM93-11-000  |
| VT                            | Green Mountain Power             | 2007-2010  | Bundled power service       | Revenue Cap Stairstep                                       | Earnings cap for overearnings above deadband; Multiple sharing bands for earnings apply if actual ROE below deadband (earnings floor of the deadband also applies) | Docket No. 7176  |
| WA                            | Puget Sound Energy               | 1997-2001  | Bundled power service       | Price Cap Stairstep   | None   | Docket UE-960195   |
| <b>Australia/New Zealand</b>  |                                  |  |                             |   |  |  |
| Australia                     | Jemena Gas Networks              | 2010-2015  | Gas distribution            | Australia-Style Hybrid                                      | Not reviewed   | Access Arrangement Proposal for NSW Gas Networks, Final Decision; June 2010  |
| Australia                     | All New South Wales distributors | 2009-2014  | Power distribution          | Australia-Style Hybrid                                      | Not reviewed   | New South Wales Distribution Determination 2009-10 to 2013-14 Final Decision |
| Australia                     | ElectraNet                       | 2008-2013  | Power transmission          | Australia-Style Hybrid                                      | Not reviewed   | Final Decision; April 2008   |
| Australia                     | ElectraNet                       | 2003-2008  | Power transmission          | Australia-Style Hybrid                                      | Not reviewed   | File No: C2001/1094  |
| Australia                     | Powerlink                        | 2007-2012  | Power transmission          | Australia-Style Hybrid                                      | Not reviewed   | Final Decision; June 2007  |

Table 7 (cont'd)

| Jurisdiction                          | Company            | Plan Term  | Services Covered                  | Rate Escalation Provisions   | Earnings Sharing Provisions | Case Reference   |
|---------------------------------------|--------------------|--|-----------------------------------|------------------------------|-----------------------------|--|
| <b>Historic (cont'd)</b>              |                    |  |                                   |                              |                             |  |
| <b>Australia/New Zealand (cont'd)</b> |                    |  |                                   |                              |                             |  |
| Australia                             | Powerlink          | 2002-2007  | Power transmission                | Australia-Style Hybrid       | Not reviewed                | File No: 2000/659  |
| Australia                             | Snowy Mountains    | 1999-2004<br>(terminated in 2002 due to merger with Transgrid) | Electric transmission             | Australia-Style Hybrid       | Not reviewed                | File No: C1999/62  |
| Australia                             | SPI PowerNet       | 2003-2008  | Power transmission                | Australia-Style Hybrid       | Not reviewed                | File No: C2001/1093  |
| Australia                             | Transend           | 2009-2014  | Power transmission                | Australia-Style Hybrid       | Not reviewed                | Transend Transmission Determination 2009/10-2013/14 (Final Decision)   |
| Australia                             | Transend           | 2004-2009  | Power transmission                | Australia-Style Hybrid       | Not reviewed                | File No: C2001/1100  |
| Australia                             | Transgrid          | 2009-2014  | Electric transmission             | Australia-Style Hybrid       | Not reviewed                | Transgrid Transmission Determination 2009/10-2013/14 (Final Decision)  |
| Australia                             | Transgrid          | 2004-2009  | Power transmission                | Australia-Style Hybrid       | Not reviewed                | File No. M2003/287   |
| Australia                             | Transgrid          | 1999-2004  | Power transmission                | Australia-Style Hybrid       | Not reviewed                | File No: CG98/118  |
| Australia - New South Wales           | Country Energy Gas | 2006-2010  | Gas distribution                  | Australia-Style Hybrid       | Not reviewed                | Revised Access Arrangement for Country Energy Gas Network, Final Decision; November 2005   |
| Australia - New South Wales           | AGL Gas Networks   | 1999-2004  | Gas transmission & distribution   | Australia-Style Hybrid       | Not reviewed                | Access Arrangement for AGL Gas Networks Limited, Final Decision; July 2000   |
| Australia - New South Wales           | All                | 2004-2009  | Power distribution                | Australia-Style Hybrid       | Not reviewed                | File No: S2004/138   |
| Australia - New South Wales           | All                | 1999-2004  | Power distribution                | Australia-Style Hybrid       | Not reviewed                | NEC Determination 99-1   |
| Australia - Northern Territory        | Power & Water      | 2000-2003  | Power transmission & distribution | Australia-Style Hybrid       | Not reviewed                | Revenue Determinations document; June 2000   |
| Australia - Northern Territory        | Power & Water      | 2009-2014  | Power transmission & distribution | Price Cap Index: CPI + 0.85% | Not reviewed                | Final Determination Networks Pricing: 2009 Regulatory Reset; March 2009  |
| Australia - Northern Territory        | Power & Water      | 2004-2009  | Power transmission & distribution | Price Cap Index: CPI - 2%    | Not reviewed                | Final Determination Networks Pricing: 2004 Regulatory Reset; February 2004   |
| Australia - Victoria                  | All                | 2008-2012  | Gas distribution                  | Australia-Style Hybrid       | Not reviewed                | Gas Access Arrangement Review 2008, 2012, Final Decision; March 2008   |
| Australia - Victoria                  | All                | 2003-2007  | Gas distribution                  | Australia-Style Hybrid       | Not reviewed                | Review of Gas Access Arrangements, Final Decision; October 2002  |
| Australia - Victoria                  | All                | 2006-2010  | Power distribution                | Australia-Style Hybrid       | Not reviewed                | Electricity Distribution Price Review 2006-2010 (Final Decision Volume 1)  |
| Australia - Victoria                  | All                | 2001-2005  | Power distribution                | Australia-Style Hybrid       | Not reviewed                | Electricity Distribution Price Determination 2001-2005 (Final Decision Volume 1)   |
| New Zealand                           | All                | 2010-2015  | Power distribution                | Revenue Cap Index: CPI - 0%  | None                        | Commerce Commission Initial Reset of the Default Price-Quality Path for Electricity Distribution Businesses Decisions Paper; November 2009 |

Table 7 (cont'd)

| Jurisdiction                          | Company                           | Plan Term                         | Services Covered                | Rate Escalation Provisions  | Earnings Sharing Provisions  | Case Reference  |
|---------------------------------------|-----------------------------------|-----------------------------------|---------------------------------|---|--|---|
| <b>Historic (cont'd)</b>              |                                   |                                   |                                 |   |  |   |
| <b>Australia/New Zealand (cont'd)</b> |                                   |                                   |                                 |   |  |   |
| New Zealand                           | All                               | 2004-2009                         | Power distribution              | Revenue Cap Index: CPI - 0.86% (Average across firms)   | None   | Commerce Commission Regulation of Electricity Lines Businesses, Targeted Control Regime, Threshold Decisions; December 2003 |
| <b>Canada</b>                         |                                   |                                   |                                 |   |  |   |
| Alberta                               | Enmax                             | 2007-2013                         | Power distribution              | Price Cap Index: Input Price Index -1.2%  | 50-50 for excess earnings above deadband   | Decision 2009-035   |
| Alberta                               | Northwestern Utilities            | 1999-2002, reopened for 2001-2002 | Gas distribution                | Revenue Cap Stairstep; at reopener replaced with rate freeze  | Sharing of earnings above/below deadband with multiple bands for overearnings; at reopener simplified to 50/50 sharing of overearnings with deadband | Decision U98060; March 1998 and Decision 2000-85; December 2000   |
| Alberta                               | EPCOR                             | 2002-2005, Terminated 12/31/2003  | Power distribution              | Price Cap Index   | None   | City of Edmonton Distribution Tariff Bylaw 12367; August 2000   |
| Northwest Territory                   | Northland Utilities               | 2011-2013                         | Bundled power service           | Revenue Cap Stairstep   | None   | Decision 17-2011; November 2011   |
| Northwest Territory                   | Northland Utilities (Yellowknife) | 2011-2013                         | Bundled power service           | Revenue Cap Stairstep   | None   | Decision 13-2011; August 2011   |
| Ontario                               | All Ontario Distributors          | 2010-2013                         | Power distribution              | Price Cap Index: GDP IPI for Final Domestic Demand - (0.92% to 1.32% depending on company's annual performance in benchmarking studies) | None   | EB-2007-0673; July 2008, September 2008, and January 2009   |
| Ontario                               | All Ontario Distributors          | 2006-2009                         | Power distribution              | Price Cap Index   | None   | EB-2006-0089; December 2006   |
| Ontario                               | All Ontario Distributors          | 2000-2003                         | Power distribution              | Price Cap Index   | 50-50 sharing of excess earnings without deadband  | RP-1999-0034; January 2000  |
| Ontario                               | Enbridge Gas Distribution         | 2008-2012                         | Gas distribution                | Revenue Cap Index: GDP-IPI * 53%  | 50-50 sharing of excess earnings above deadband  | EB-2007-0615; February 2008   |
| Ontario                               | Union Gas                         | 2008-2012                         | Gas distribution                | Revenue Cap Index: GDP-IPI -1.82%   | Sharing of overearnings only with deadband and multiple sharing bands  | EB-2007-0606; January 2008  |
| Ontario                               | Union Gas                         | 2001-2003                         | Gas distribution                | Price Cap Index   | 50-50 sharing around deadband  | RP-1999-0017; July 2001   |
| <b>Great Britain</b>                  |                                   |                                   |                                 |   |  |   |
| Great Britain                         | All                               | 2008-2013                         | Gas distribution                | British-Style Hybrid  | Not reviewed   | Review- Final Proposals; Published December 2007  |
| Great Britain                         | All                               | 2002-2007, extended to 2008       | Gas distribution                | British-Style Hybrid  | Not reviewed   | "RPI - X @ 20." Ofgem Publication   |
| Great Britain                         | All                               | 2007-2012                         | Gas transmission                | British-Style Hybrid  | Not reviewed   | Transmission Price Control Review; Published December 2006  |
| Great Britain                         | All                               | 2002-2007                         | Gas transmission                | British-Style Hybrid  | Not reviewed   | "RPI - X @ 20." Ofgem Publication   |
| Great Britain                         | All                               | 1998-2002                         | Gas transmission & distribution | British-Style Hybrid  | Not reviewed   | Energy Law Journal Volume 23 No. 2 p.444  |
| Great Britain                         | All                               | 1994-1997                         | Gas transmission & distribution | British-Style Hybrid  | Not reviewed   | Energy Law Journal Volume 23 No. 2 p.444  |
| Great Britain                         | All                               | 1992-1994                         | Gas transmission & distribution | British-Style Hybrid  | Not reviewed   | Energy Law Journal Volume 23 No. 2 p.444  |
| England & Wales                       | All                               | 1995-2000                         | Power distribution              | British-Style Hybrid  | Not reviewed   | "RPI - X @ 20." Ofgem Publication   |
| Great Britain                         | All                               | 2010-2015                         | Power distribution              | British-Style Hybrid  | Variances of cost from budgets shared through Information Quality Incentive Mechanism  | Ofgem Distribution Price Control Review 5   |
| Great Britain                         | All                               | 2005-2010                         | Power distribution              | British-Style Hybrid  | Not reviewed   | Ofgem Distribution Price Control Review 4   |



Table 7 (cont'd)

| Jurisdiction                  | Company       | Plan Term                   | Services Covered   | Rate Escalation Provisions | Earnings Sharing Provisions | Case Reference   |
|-------------------------------|---------------|-----------------------------|--------------------|----------------------------|-----------------------------|--|
| <b>Historic (cont'd)</b>      |               |                             |                    |                            |                             |  |
| <b>Great Britain (cont'd)</b> |               |                             |                    |                            |                             |  |
| Great Britain                 | All           | 2000-2005                   | Power distribution | British-Style Hybrid       | Not reviewed                | "RPI - X @ 20." Ofgem Publication                          |
| England & Wales               | National Grid | 2001-2006, extended to 2007 | Power transmission | British-Style Hybrid       | Not reviewed                | OECD Reviews of Regulatory Reform                          |
| England & Wales               | National Grid | 1997-2001                   | Power transmission | British-Style Hybrid       | Not reviewed                | "RPI - X @ 20." Ofgem Publication                          |
| England & Wales               | National Grid | 1993-1997                   | Power transmission | British-Style Hybrid       | Not reviewed                | Energy Law Journal Volume 23 No. 2 p.452                   |
| Great Britain                 | All           | 2007-2012                   | Power transmission | British-Style Hybrid       | Not reviewed                | Transmission Price Control Review; Published December 2006 |
| Scotland                      | All           | 2000-2005, extended to 2007 | Power transmission | British-Style Hybrid       | Not reviewed                | "RPI - X @ 20." Ofgem Publication                          |
| Scotland                      | All           | 1995-2000                   | Power transmission | British-Style Hybrid       | Not reviewed                | 1995 Report by Monopolies and Mergers Commission           |

<sup>1</sup> Rate freezes without extensive supplemental funding from capital cost trackers are excluded from this table.

## VI. Formula Rates

A cost of service formula rate plan (“FRP”) is essentially a wide-scope cost tracker designed to help a utility’s revenue track its cost of service. Earnings surpluses or deficits occur when revenue and cost are not balanced. FRPs have earnings true up mechanisms that adjust rates so that earnings variances are reduced or eliminated. Regulatory cost is contained by limiting review of costs and revenues.

The earnings true up mechanism plays a key role in an FRP. Some mechanisms compare the earned ROE to the target ROE and then calculate the rate adjustment needed to reduce the ROE variance. Others adjust rates for the difference between revenue and a pro forma cost of service calculated using a rate of return target. Both approaches can keep the utility whole for the time value of money.

Earnings true up mechanisms often include a deadband in which variances don’t trigger a rate adjustment. Once the variance exceeds the deadband, however, earnings true up mechanisms in FRPs commonly move the ROE all, or almost all, of the way to its regulated target without sharing earnings variances. This is an important distinction between the earnings true up mechanism of an FRP and the earnings *sharing* mechanisms found in some multiyear rate plans.

Formula rates do not always address major plant additions. In state-regulated FRPs for retail electric services, for instance, major investment programs are generally approved separately through such means as hearings on certificates of public convenience and necessity. The resultant cost is often recovered through a separate tracker.

Mechanisms are sometimes added to an FRP to encourage better operating performance. For example, escalation of revenue that compensates the utility for its O&M expenses may be limited by a formula tied to an inflation index. FRPs in several states that include Illinois and Mississippi contain a number of targeted performance incentive mechanisms.

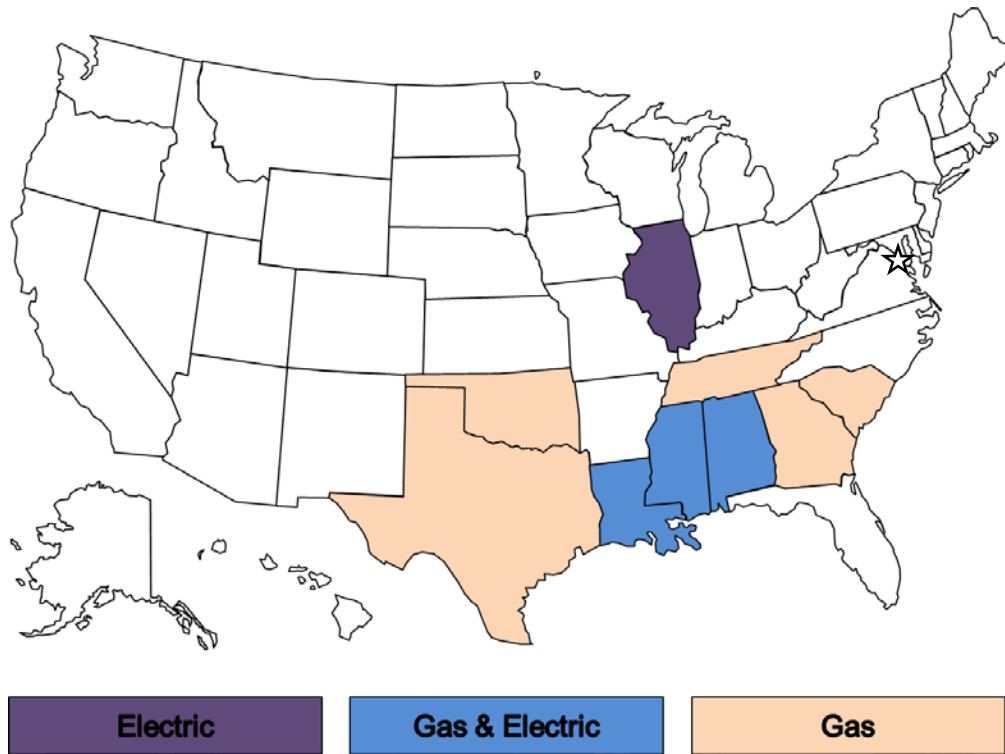
Formula rates have been used at the FERC and its predecessor agency to regulate interstate services of energy utilities for decades. Use of FRPs by the FERC was encouraged in the 1970s and early 1980s by rapid price inflation. Despite slower inflation in recent years, the FERC has made extensive use of formula rates for power transmission in an effort to simplify its daunting regulatory task and facilitate urgently needed investments.

Precedents for retail formula rates, which recover costs of generation and/or distribution, are listed in Table 8 and Figure 9.<sup>10</sup> It can be seen that FRPs for retail utility services are most common in the Southeast and South Central states. Alabama was an early innovator, approving “Rate Stabilization and Equalization”

<sup>10</sup> Some plans labeled as formula rates do not qualify for inclusion in this table and figure based on our definition. These usually take the form of ESMs that may or may not protect the utility from underearning.

plans for Alabama Power and Alabama Gas in the early 1980s.<sup>11</sup> Formula rates are now used to regulate electric utilities in Illinois, some gas and electric utilities in Louisiana and Mississippi, and some gas utilities in Georgia, Oklahoma, South Carolina, Tennessee, and Texas. Most of the recent approvals of formula rates have been for gas distribution, as this is one means to avoid the frequent rate cases that declining average use can trigger. However, formula rates were recently authorized legislatively for electric utilities in Arkansas.

Figure 9: Current Retail Formula Rate Precedents by State



<sup>11</sup> For further discussion of the Alabama FRP experience see Edison Electric Institute, *Case Study of Alabama Rate Stabilization and Equalization Mechanism*, June 2011.

Table 8

# Retail Formula Rate Plan Precedents<sup>1</sup>

| Jurisdiction   | Company Name                                | Services              | Plan Name   | Plan Term                        | Case Reference  |
|----------------|---|-----------------------|---|----------------------------------|---|
| <b>Current</b> |   |                       |   |                                  |   |
| AL             | Alabama Power                               | Bundled Power Service | Rate Stabilization & Equalization Factor (Rate RSE)       | 2013-open                        | Dockets 18117 and 18416 (August 2013)   |
| AL             | Alabama Gas                                 | Gas                   | Rate Stabilization & Equalization Factor (Rate RSE)       | 2014-2018                        | Dockets 18406 and 18328 (December 2013)   |
| AL             | Mobile Gas Service                          | Gas                   | Rate Stabilization & Equalization Factor (Rate RSE)       | 2013-2017                        | Docket 28101 (August 2013)  |
| GA             | Atmos Energy                                | Gas                   | Georgia Rate Adjustment Mechanism (GRAM)                  | 2012-open                        | Docket 34764 (December 2011)  |
| IL             | Ameren Illinois                             | Power Distribution    | Rate Modernization Action Plan - Pricing (Rate MAP-P)     | 2011-2017, extended through 2019 | Case 12-0001 (September 2012) and Public Act 098-1175   |
| IL             | Commonwealth Edison                         | Power Distribution    | Rate Delivery Service Pricing and Performance (Rate DSPP) | 2011-2017, extended through 2019 | Case 11-0721 (May 2012) and Public Act 098-1175   |
| LA             | Atmos Energy - Louisiana Gas Service        | Gas                   | Rate Stabilization Clause                                 | 2014-open                        | Docket U-32987 (June 2014)  |
| LA             | Atmos Energy - Trans Louisiana Gas          | Gas                   | Rate Stabilization Clause                                 | 2014-open                        | Docket U-32987 (June 2014)  |
| LA             | Southwestern Electric Power                 | Electric              | Formula Rate Plan   | 2013-2016                        | Docket U-32220 (July 2014)  |
| MS             | Atmos Energy Corp                           | Gas                   | Stable/Rate Rider   | 2011-present                     | Docket 05-UN-0503 (April 2011)  |
| MS             | Centerpoint Energy                          | Gas                   | Rate Regulation Adjustment Rider                          | 2014-open                        | Docket 2014-UN-060 (May 2014)   |
| MS             | Entergy Mississippi                         | Bundled Power Service | Formula Rate Plan 6 (FRP-6)                               | 2015-open                        | Docket 2014-UN-132 (December 2014)  |
| MS             | Mississippi Power                           | Bundled Power Service | Performance Evaluation Plan - 5 (PEP-5)                   | 2010-open                        | Docket 2003-UN-0898 (November 2009)   |
| OK             | Centerpoint Energy Arkla                    | Gas                   | Performance Based Rate of Change Plan                     | 2010-open                        | Cause PUD 201000030 (July 2010)   |
| OK             | Arkansas Oklahoma Gas                       | Gas                   | Performance Based Rate of Change Plan                     | 2013-open                        | Cause PUD 201200236 (July 2013)   |
| SC             | Piedmont Gas                                | Gas                   | NA  | 2005-open                        | Docket 2005-125-G (September 2005)  |
| SC             | South Carolina Electric and Gas             | Gas                   | NA  | 2005-open                        | Docket 2005-113-G (October 2005)  |
| TN             | Atmos Energy                                | Gas                   | Annual Review Mechanism                                   | 2015-open                        | Docket 14-00146 (May 2015)  |
| TX             | Centerpoint Energy-Texas Coast Division     | Gas                   | Cost of Service Adjustment Clause                         | 2008-open                        | Gas Utility Docket 9791 (October 2008)  |
| TX             | Atmos Energy-Mid Texas Division             | Gas                   | Rate Review Mechanism                                     | 2013-2017                        | Various Resolutions/Ordinances across cities in service territory, including City of Fort Worth Ordinance 17989-02-2007 |
| TX             | Atmos Energy West Texas Division            | Gas                   | Rate Review Mechanism                                     | 2014-open                        | Various Resolutions/Ordinances across cities in service territory including City of Tulia Ordinance 2014-03             |
| TX             | Texas Gas Service - Rio Grande Service Area | Gas                   | Cost of Service Adjustment                                | 2012-open                        | Various Resolutions/Ordinances across cities in service territory   |
| TX             | Texas Gas Service - North Service Area      | Gas                   | Cost of Service Adjustment Tariff                         | 2009-open                        | Various Resolutions/Ordinances in service territory and Gas Utility Docket 9839 (April 2009)                            |

Table 8 (cont'd)

| Jurisdiction    | Company Name                         | Services              | Plan Name   | Plan Term                        | Case Reference                                     |
|-----------------|--------------------------------------|-----------------------|---|----------------------------------|--|
| <b>Historic</b> |                                      |                       |   |                                  |  |
| AL              | Alabama Power                        | Bundled Power Service | Rate Stabilization & Equalization Factor (Rate RSE) | 2006-2013                        | Dockets 18117 and 18416 (October 2005)             |
| AL              | Alabama Power                        | Bundled Power Service | Rate Stabilization & Equalization Factor (Rate RSE) | 2002-2006                        | Dockets 18117 and 18416 (March 2002)               |
| AL              | Alabama Power                        | Bundled Power Service | Rate Stabilization & Equalization Factor (Rate RSE) | 1998-2002                        | Dockets 18117 and 18416 (March 1998)               |
| AL              | Alabama Power                        | Bundled Power Service | Rate Stabilization & Equalization Factor (Rate RSE) | 1990-1998                        | Dockets 18117 and 18416 (March 1990)               |
| AL              | Alabama Power                        | Bundled Power Service | Rate Stabilization & Equalization Factor (Rate RSE) | 1985-1990                        | Dockets 18117 and 18416 (June 1985)                |
| AL              | Alabama Power                        | Bundled Power Service | Rate Stabilization & Equalization Factor (Rate RSE) | 1982-1985                        | Dockets 18117 and 18416 (November 1982)            |
| AL              | Alabama Gas                          | Gas                   | Rate Stabilization & Equalization Factor (Rate RSE) | 2008-2014, later changed to 2013 | Dockets 18406 and 18328 (December 2007)            |
| AL              | Alabama Gas                          | Gas                   | Rate Stabilization & Equalization Factor (Rate RSE) | 2002-2007                        | Dockets 18046 and 18328 (June 2002)                |
| AL              | Alabama Gas                          | Gas                   | Rate Stabilization & Equalization Factor (Rate RSE) | 1996-2001                        | Dockets 18046 and 18328 (October 1996)             |
| AL              | Alabama Gas                          | Gas                   | Rate Stabilization & Equalization Factor (Rate RSE) | 1991-1995                        | Dockets 18046 and 18328 (December 1990)            |
| AL              | Alabama Gas                          | Gas                   | Rate Stabilization & Equalization Factor (Rate RSE) | 1987-1990                        | Dockets 18046 and 18328 (September 1987)           |
| AL              | Alabama Gas                          | Gas                   | Rate Stabilization & Equalization Factor (Rate RSE) | 1985-1987                        | Dockets 18046 and 18328 (May 1985)                 |
| AL              | Alabama Gas                          | Gas                   | Rate Stabilization & Equalization Factor (Rate RSE) | 1983-1985                        | Dockets 18046 and 18328 (January 1983)             |
| AL              | Mobile Gas Service                   | Gas                   | Rate Stabilization & Equalization Factor (Rate RSE) | 2009-2013                        | Docket 28101 (December 2009)                       |
| AL              | Mobile Gas Service                   | Gas                   | Rate Stabilization & Equalization Factor (Rate RSE) | 2005-2009                        | Docket 28101 (June 2005)                           |
| AL              | Mobile Gas Service                   | Gas                   | Rate Stabilization & Equalization Factor (Rate RSE) | 2001-2005                        | Docket 28101 (June 2002)                           |
| LA              | Atmos Energy - Louisiana Gas Service | Gas                   | Rate Stabilization Plan                             | 2006-2014                        | Docket U-21484 (May 2006)                          |
| LA              | Atmos Energy - Louisiana Gas Service | Gas                   | Rate Stabilization Plan                             | 2001-2003                        | Docket U-21484 (January 2001)                      |
| LA              | Atmos Energy - Trans Louisiana Gas   | Gas                   | Rate Stabilization Plan                             | 2006-2014                        | Dockets U-28814 and U-28588 and U-28587 (May 2006) |
| LA              | Entergy New Orleans                  | Electric and Gas      | Formula Rate Plan                                   | 2010-2012                        | Docket UD-08-03 (April 2009)                       |
| LA              | Entergy New Orleans                  | Electric only         | Formula Rate Plan                                   | 2004-2006                        | Docket UD-01-04 (May 2003)                         |
| MS              | Atmos Energy Corp                    | Gas                   | Stable/Rate Rider                                   | 2009-2011                        | Docket 05-UN-0503 (December 2009)                  |
| MS              | Atmos Energy Corp                    | Gas                   | Stable/Rate Rider                                   | 2006-2009                        | Docket 05-UN-0503 (October 2005)                   |
| MS              | Atmos Energy Corp                    | Gas                   | Stable/Rate Rider                                   | 1992-2006                        | Docket 92-UA-0230 (September 1992)                 |
| MS              | Centerpoint Energy                   | Gas                   | Rate Regulation Adjustment Rider                    | 2012-2014                        | Docket 12-UN-139 (May 2012)                        |

Table 8 (cont'd)

| Jurisdiction             | Company Name  | Services              | Plan Name                                  | Plan Term  | Case Reference  |
|--------------------------|---|-----------------------|--|--|---|
| <b>Historic (cont'd)</b> |   |                       |  |  |   |
| MS                       | Centerpoint Energy Entex                              | Gas                   | Rate Regulation Adjustment Rider           | 2008-2012  | Docket 07-UN-548 (December 2007)  |
| MS                       | Centerpoint Energy Entex                              | Gas                   | Rate Regulation Adjustment Rider           | 1996-2007  | Docket 96-UN-0202 (September 1996)  |
| MS                       | Entergy Mississippi                                   | Bundled Power Service | Formula Rate Plan 5 (FRP-5)                | 2010-2014  | Docket 2009-UN-388 (March 2010)   |
| MS                       | Entergy Mississippi                                   | Bundled Power Service | Formula Rate Plan 1 (FRP-1)                | 1995   | Docket 93-UA-0301 (March 1994)  |
| MS                       | Mississippi Power                                     | Bundled Power Service | Performance Evaluation Plan - 4A (PEP- 4A) | 2009   | Docket 06-UN-0511 (January 2009)  |
| MS                       | Mississippi Power                                     | Bundled Power Service | Performance Evaluation Plan - 4 (PEP-4)    | 2004-2009  | Docket 03-UN-0898 (May 2004)  |
| MS                       | Mississippi Power                                     | Bundled Power Service | Performance Evaluation Plan - 3 (PEP-3)    | 2002-2004  | Docket 01-UN-0826 (October 2002)  |
| MS                       | Mississippi Power                                     | Bundled Power Service | Performance Evaluation Plan - 2A (PEP-2A)  | 2001-2002  | Docket 01-UN-0548 (December 2001)   |
| MS                       | Mississippi Power                                     | Bundled Power Service | Performance Evaluation Plan - 1A (PEP-1A)  | 1992-1993  | Docket 92-UN-0059 (July 1992)   |
| MS                       | Mississippi Power                                     | Bundled Power Service | Performance Evaluation Plan - 1 (PEP-1)    | 1991-1992  | Docket 90-UN-0287 (December 1990)   |
| MS                       | Mississippi Power                                     | Bundled Power Service | Performance Evaluation Plan                | 1986-1990  | Cause PUD U-4761 (August 1986)  |
| OK                       | Centerpoint Energy Arkla                              | Gas                   | Performance Based Rate of Change Plan      | 2008-2010  | Cause PUD 200800062 (July 2008)   |
| OK                       | Centerpoint Energy Arkla                              | Gas                   | Performance Based Rate of Change Plan      | 2004-2008  | Cause PUD 200400187 (November 2004)   |
| OK                       | Oklahoma Natural Gas                                  | Gas                   | Performance Based Rate of Change Plan      | 2010-2014  | Docket 200800348 (April 2009)   |
| TX                       | Atmos Energy-Mid Texas Division                       | Gas                   | Rate Review Mechanism                      | 2008 - varying end dates   | Various Resolutions/Ordinances across cities in service territory, including City of Fort Worth Ordinance 17989-02-2008 |
| TX                       | Atmos Energy West Texas Division                      | Gas                   | Rate Review Mechanism                      | 2009 - conclusion of rate case to be filed on or before June 1, 2013 | Various Resolutions/Ordinances across cities in service territory   |
| TX                       | Centerpoint Energy - Beaumont East Texas Gas Division | Gas                   | Cost of Service Adjustment                 | 2009-2011  | Various Resolutions/Ordinances across cities in service territory   |
| TX                       | Texas Gas Service - Rio Grande Service Area           | Gas                   | Cost of Service Adjustment                 | 2009-2011  | Various Resolutions/Ordinances across cities in service territory   |

<sup>1</sup> Table excludes some mechanisms that do not conform to our FRP definition. Some of these are called formula rate plans.

## VII. Marketing Flexibility

This is a new section, added since the last survey. We've added it because we (and EEI) believe that marketing flexibility is a growing, strategic issue for EEI members. Several trends in business conditions are driving the need for more flexibility. The growth of distributed energy resources, for example, is a competitive challenge but also brings new service opportunities related to the development of distributed energy assets (e.g., designing, financing, procuring, building, fueling, and maintaining). Grid modernization is providing new functional capabilities to the grid which also create new service opportunities.<sup>12</sup> Examples include new reliability, network management, and transaction management services. Residential and commercial customers also have a growing interest in plug-in electric vehicles, and all retail customers have shown an interest in green power packages that can be supplied from grid-accessed resources.

New services will tend to be optional services that all customers will not want. Customers must be able to decline them; and if they do, not to incur associated costs. Competitive alternatives will be available for many of these services, and customers may have special needs that are difficult to address with standard tariffs. Thus, utilities will need to be able to respond quickly to the market. They will often be price "takers," as opposed to price "makers."

To date, regulatory precedent allowing investor-owned electric utilities to offer many of these services has been limited. This chapter is, in effect, a place holder for expected future electricity precedent.

### Why Electric Utilities Need Marketing Flexibility

Of course, electric utilities have always needed flexibility in some of the markets they serve:

- Utility assets have uses in markets other than those for retail electric services. Most notably, surplus generating capacity of VIEUs can be used for sales in bulk power markets. These markets are competitive and price-volatile. Land in transmission corridors can be well-suited for nurseries. Prices utilities charge in competitive markets like these are largely decontrolled. Margins earned in these markets are shared with customers of retail electric services.
- The demand of large-load retail customers is often sensitive to the rates and other terms of service utilities offer because these customers have power-intensive technologies and/or options to cost-competitively cogenerate or operate at alternative locations, or are economically marginal. Customers of this kind are especially important to vertically integrated utilities. Discounts or special contracts for such customers are traditionally allowed but often require specific approval. Commission reviews of special contracts can take months.

<sup>12</sup> For an overview of modernization, see: EPRI, *The Integrated Grid: Realizing the Full Value of Central and Distributed Energy Resources*, 2014.

## Marketing Flexibility Remedies

Marketing flexibility runs the gamut from greater commission effort to approve new rates and services by traditional means to “light handed” regulation and outright decontrol. Light handed regulation typically takes the form of expedited approval of market offerings. These offerings may be subject to further scrutiny at a later date (e.g., in the next rate case).

Flexibility is most commonly granted for rates and services with certain characteristics. Light handed regulation of optional rates and services, for example, is based on the grounds that customers are protected by their freedom not to take the service, their continued access to service under standard tariffs, and the availability of alternatives in unregulated markets. Optional offerings include tariffs open to all qualifying customers, special contracts, and discretionary value-added services. Decontrol is typically permitted only for offerings to markets where vigorous competition reigns.

## Marketing Flexibility Examples: Electric Utilities

Marketing flexibility is not extensive in the electric utility industry today but there are nonetheless notable examples such as the following.

- Four Florida electric utilities have “Commercial/Industrial Service Rider” (“CISR”) tariffs that allow them to negotiate contract service agreements (“CSAs”) that outline discounts on the base energy and/or demand charges for large load customers who can show that they have viable alternatives to utility-provided electric service.<sup>13</sup> The discounted rate must cover the incremental cost of service provision and provide a contribution to fixed costs. CSAs do not need commission approval but the commission has the option to conduct a prudence review of any signed contract.
- Duke Energy offers large North Carolina customers an optional Green Source Rider service. The program allows customers that have added at least 1 MW of new load since June 2012 to apply for an annual amount of renewable energy (and the associated renewable energy certificates) over a specific term (between 3-15 years). Customers may request a particular renewable resource in their application. Duke would then negotiate a purchased power agreement on behalf of the customer or attempt to source the energy from its own assets.

<sup>13</sup> Florida Public Service Commission (2014), Order Approving Commercial/Industrial Service Rider Tariff, Order No. PSC-14-0110-TRF-EI.



## Marketing Flexibility in Other Regulated Industries

Regulators and electric utilities considering new forms of marketing flexibility can learn from other utility industries that have experienced technological change, increased competition, and/or complex and changing customer needs. We provide here brief overviews of experience in the telecommunications, gas distribution, gas transmission, and railroad industries.

### Telecommunications

Local telephone companies (aka incumbent local exchange carriers or "ILECs") control the traditional distribution networks connecting residences and businesses. The "last mile" services they provide include the interconnection needed for long-distance, data, security, paging, and mobile telephone services as well as local telephone calling. ILECs have in the last 30 years confronted extensive competition, rapid technological change, and new marketing opportunities. Challenges they have faced have many parallels to those emerging for electric utilities.

The Federal Communications Commission ("FCC") regulates interstate access services of ILECs. Other ILEC services are regulated by state commissions. In the 1980s, ILECs were still regulated using cost-of-service regulation with complex reporting and compensation schemes. This was succeeded by multiyear rate plans, often called "price cap" plans since they capped rate escalation but permitted some discounts to encourage greater system use. Price caps were often escalated using inflation – X formulas where the X factor reflected an estimate of the telecommunication industry productivity trend. Prices were separately capped for several baskets of services. This insulated customers in each service basket from discounts offered to other baskets. Insulation was heightened by the infrequency (or elimination) of rate cases and the common lack of earnings sharing. The FCC instituted price caps for interstate access services of ILECs in the early 1990s. Price caps also became commonplace in state ILEC regulation.

Marketing flexibility for ILECs has been most relevant in the following two areas.

Competition in Traditional Service Markets Some services ILECs offered became subject to mounting competitive pressure that varied with the location where service was offered. For example, by the late 1990s, competitive access providers like MFS were constructing high-speed fiber optic networks connecting office buildings in metropolitan areas. These networks allowed businesses and long-distance carriers to connect to customers while bypassing ILEC data facilities. They could also be used to transmit voice traffic, avoiding ILEC voice access charges. High regulated prices were uncompetitive in high-traffic locations where facilities-based competitors entered the market. For services subject to competitive challenges, price cap plans in many states permitted discounts to standard tariffs within certain bands (e.g., rates could rise by 5% less than the price cap index) and/or subject to pricing floors that discouraged predation and cross-subsidization. In markets where pronounced competition could be demonstrated, ILEC rates were sometimes effectively decontrolled.

Innovative Services Technological change gave rise to innovative new services [e.g., Voicemail, Centrex and high-speed data (e.g., digital subscriber loop or "DSL")] which utilize essential network assets of ILECs

and cannot not practically be performed by affiliates.<sup>14</sup> Many of these services were deemed “information” services and were regulated by the FCC. Regulators ultimately permitted ILECs to provide a host of these services and allowed considerable pricing flexibility.

### Gas Distribution

Natural gas distributors also need flexibility to address some markets that they serve. Like VIEUs, many large-load customers of gas distributors have price sensitive demands and special needs. Distributors have frequently obtained light handed regulation to respond to these challenges. Nicor Gas, for example, offers a contract service for customers taking delivery near interstate gas pipelines. Contracts are submitted to state regulators for informational purposes and are treated on a proprietary basis. Nicor has similar flexibility to enter into custom contracts with electric power generators. The Company must document to the regulator that revenues from such service exceed the incremental cost of service, thereby ensuring a positive contribution to fixed cost recovery.

### Interstate Gas Transmission

Interstate pipeline companies need marketing flexibility for many reasons. Demand for a pipeline’s services can be sensitive to the terms it offers due to competition from other pipelines, dual-fuel capabilities of large volume customers, the extreme variability of need for service, and other special needs. It is difficult to design standard tariffs that meet the needs of all customers. Pipelines also have their own needs, such as an interest in signing anchor shippers to long-term contracts before constructing new facilities. Since 1996, the FERC has engaged in light handed regulation of negotiated pipeline rates to individual customers who have recourse to service under a standard tariff. The FERC gives a quick turnaround to most requests for negotiated contracts. A sizable share of pipeline service is conducted under negotiated rates. A remarkable variety of rate designs have been employed.<sup>15</sup>

### Railroads

In the railroad industry, MRPs were permitted under the terms of the Staggers Railroad Act of 1980. Railroads were given a freer hand to respond to competition from truckers, waterborne carriers, and other railroads. The railroads also used marketing flexibility to offer discounts to customers that reduced their cost by assembling their own unit trains and not requesting pickups or deliveries in remote locations.

MRPs are less common today in the railroad and telecom industries. However, marketing flexibility continues under new regulatory systems that share with MRPs the attribute of protecting core customers without linking a carrier’s rates closely to its own cost. Railroads have recently used this flexibility to compete for traffic from new oil field developments.

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<sup>14</sup> Centrex service, which provided businesses features like call-waiting, auto attendant, voicemail, 4-digit extension dialing and conference calling, could also be sourced by purchasing or leasing a private branch exchange (“PBX”), a private network platform that enabled these features.

<sup>15</sup> See, for example, Comments of the Interstate Natural Gas Association of America in FERC Docket PLO2-6-000, September 2002.

## VIII. Conclusions

Regulation of North American energy utilities is evolving to better meet the needs of utilities and their customers in a rapidly changing world. Innovation continues, while some older forms of Altreg such as multiyear rate plans are having a renaissance.

The variety of Altreg approaches that have been established reflects the varied circumstances of utilities. Some are vertically integrated, while others are more specialized wire companies. Capex needs and trends in average use vary greatly. Regulatory traditions also vary across the US and other advanced industrial countries.

No single Altreg approach is right for every situation. The availability of multiple remedies for the underlying challenges increases the chance that an approach has already been tried that would work well, with some adjustments, in new situations. Numerous precedents for an approach should raise confidence that it makes good sense under fairly common circumstances.

Taken together, the many innovations described in this survey can encourage utilities to achieve compensatory rates of return while making needed investments, improving efficiency, and developing more market-responsive rates and services. Regulation can be streamlined, and utilities can be encouraged to embrace cost-effective DERs. Regulators and stakeholders to regulation across the US should give priority attention to these options and consider which kinds of Altreg might work best in their situation.