Exhibit No.:

Issue: Regulatory Reform Policy Witness: Robert B. Hevert

Sponsoring Party: Liberty Utilities (Midstates Natural Gas) Corp.

d/b/a Liberty Utilities Case No.: GR-2018-0013

Date Testimony Prepared: September 28, 2017

Before the Public Service Commission of the State of Missouri

Direct Testimony

of

Robert B. Hevert ScottMadden, Inc.

On Behalf Of

Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities

September 2017



DIRECT TESTIMONY OF ROBERT B, HEVERT LIBERTY UTILITIES BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION CASE NO. GR-2018-0013

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1 I. INTRODUCTION

2	Q.	PLEASE STATE YOUR NAME, AFFILIATION, AND BUSINESS ADDRESS

- 3 A. My name is Robert B. Hevert. I am a Partner at ScottMadden, Inc. ("ScottMadden").
- 4 My business address is 1900 West Park Drive, Suite 250, Westborough, MA 01581.

5 Q. ON WHOSE BEHALF ARE YOU SUBMITTING THIS TESTIMONY?

- 6 A. I am submitting this direct testimony ("Direct Testimony") before the Missouri Public
- 7 Service Commission ("Commission") on behalf of Liberty Utilities (Midstates Natural
- 8 Gas) Corp., d/b/a Liberty Utilities ("Liberty" or the "Company"), an indirect, wholly
- 9 owned subsidiary of Algonquin Power & Utilities Corp ("APUC").

10 Q. PLEASE SUMMARIZE YOUR EDUCATIONAL AND PROFESSIONAL

11 **EXPERIENCE.**

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- 12 A. I hold a Bachelor's degree in Business and Economics from the University of Delaware,
- and an MBA with a concentration in Finance from the University of Massachusetts. I
- also hold the Chartered Financial Analyst designation.

I have worked in regulated industries for over thirty years, having served as an executive and manager with consulting firms, a financial officer of a publicly traded natural gas utility (at the time, Bay State Gas Company), and an analyst at a telecommunications utility. In my role as a consultant, I have advised numerous energy and utility clients on a wide range of financial and economic issues including corporate

- DIRECT TESTIMONY 1 and asset-based transactions, asset and enterprise valuation, transaction due diligence, 2 and strategic matters. As an expert witness, I have provided testimony in more than 200 3 proceedings regarding various financial and regulatory matters before numerous state 4 utility regulatory agencies, the Federal Energy Regulatory Commission, and the Alberta 5 Utilities Commission. 6 Q. **HAVE** YOU **PREVIOUSLY FILED TESTIMONY BEFORE THIS** 7 **COMMISSION?** 8 A. Since 2010, I have filed testimony before the Commission in eleven rate 9 proceedings. 10 II. PURPOSE AND OVERVIEW OF TESTIMONY 11 Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY? 12 The purpose of my Direct Testimony is to provide an overview of regulatory ratemaking A. 13 reform policies and support the Company's request for new ratemaking mechanisms. Specifically, my testimony addresses Liberty's proposals¹ for regulatory rate reform 14 through alternative ratemaking mechanisms that are designed to better align the interests 15 16 of customers and the Company, consistent with fundamental regulatory objectives and
- 18 Q. HOW IS THE REMAINDER OF YOUR TESTIMONY ORGANIZED?
- 19 A. The remainder of this Testimony is organized as follows:

ratemaking principles.

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20 <u>Section III</u> – Provides an overview of the Company's request and need for regulatory reform;

The Company's proposals are explained by Company witness Timothy S. Lyons.

- Section IV Discusses the benefits of alternative ratemaking mechanisms and their
 consistency with ratemaking principles and objectives;

 Section V Describes the trends nationally for regulatory reform and alternative ratemaking mechanisms;

 Section VI Discusses the rationale for, and purpose of revenue decoupling and cost recovery adjustment mechanisms; and
- 7 <u>Section VII</u> Summarizes and concludes my testimony.

III. OVERVIEW OF THE COMPANY'S REQUEST AND NEED FOR

REGULATORY RATE REFORM.

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Q. PLEASE PROVIDE A BRIEF SUMMARY OF THE COMPANY'S REQUEST IN THIS PROCEEDING.

As described in more detail by Company witness Timothy S. Lyons, the Company is requesting five ratemaking reforms to remedy persistent revenue deficiencies. Specifically, the Company is requesting the approval of: (1) a revenue decoupling mechanism (Volume Balancing Adjustment rider, or "VBA"); (2) a Capital Reliability tracking mechanism, to defer through a regulatory asset for future recovery in rates the carrying costs associated with incremental capital spending not included in base rates; and (3) three additional tracking mechanisms to track and reconcile actual operation and maintenance ("O&M") expenses incurred during the year with those reflected in current base rates. The proposed O&M trackers would track and reconcile expenses related to the following items: (1) Ad Valorem Taxes; (2) Bad Debt expenses; and (3) Vegetation or Right-of-Way Management expenses (collectively, the "O&M Trackers").

1 Q. PLEASE SUMMARIZE YOUR CONCLUSIONS REGARDING THE
2 COMPANY'S PROPOSALS, AND HOW THEY BENEFIT BOTH CUSTOMERS
3 AND INVESTORS.

A.

As discussed throughout the balance of my testimony, the Company's proposals are driven by several factors that combine to reduce revenues and increase operating costs just as cash flow is needed to fund the capital investments needed to provide safe and reliable service. Those factors – declining use per customer, increasing operating costs, and continuing capital investment requirements – have affected natural gas utilities across the Country. Other utilities, and other regulatory commissions, have recognized that under current conditions, traditional cost of service regulation is not likely to provide the timely recovery of costs needed to ensure customers are served by financially sound utility companies. They have addressed those concerns by implementing structures similar to those included in the Company's proposal.

Other utility companies, regulatory commissions, and the financial community have recognized that traditional cost recovery no longer adequately addresses the needs of customers and investors, and that some form of regulatory reform is needed to protect the interests of multiple constituencies. As with the Company's proposed structures, the mechanisms put in place at other utilities address the dilution in cash flow that inevitably would diminish their financial profile, ultimately to the detriment of their customers and investors. And like other utilities, the Company's proposed mechanisms would mitigate the need for increasingly frequent rate proceedings, to the benefit of customers.

1 Q. WHAT HAS BEEN THE TRADITIONAL FRAMEWORK OF COST 2 RECOVERY FOR UTILITIES SUCH AS LIBERTY?

A.

Under traditional regulation, utilities are granted an exclusive service territory in exchange for the obligation to provide service to customers within that territory, and to be subject to rate regulation, including a regulated rate of return. In large measure, cost of service regulation, which establishes the authorized level of revenue and returns, arises from the "essential" nature of utility services, whose unit costs decrease with increasing levels of output. Because of their declining cost structures, utility services in a given market area are more efficiently provided by a single firm than by multiple firms. Although they may serve different market sectors (e.g., electricity, natural gas, water, waste water) utilities typically are capital-intensive enterprises, whose investments are long-lived, essentially irreversible, and represent high "sunk" costs.

Under traditional cost-of-service ratemaking, the process of setting of just and reasonable rates applies historical costs to a test year to determine revenue requirements and billing determinants. The rates approved in the rate proceeding are then fixed until the next rate case. That is, historical costs are used to set future rates, which results in a lag between the time funds are expended, and the time rates are set to recover those costs. If sales are higher than anticipated, the utility's profit will be higher. Under a traditional ratemaking approach, the utility retains the excess profit between rate cases to fund additional investment. However, if sales are lower than anticipated, revenues (and profit) will be lower, and the utility may not have sufficient earnings to cover its fixed costs and invest in the capital necessary to provide safe and reliable service. Regulatory lag, therefore, is a significant challenge for utilities in situations in which costs are rising

1		more rapidly than sales.
2	Q.	HOW DOES THE CURRENT ENVIRONMENT DIFFER FROM THE
3		SCENARIO IN WHICH TRADITIONAL COST OF SERVICE REGULATION
4		ENABLED UTILITIES TO MAINTAIN THEIR FINANCIAL STRENGTH AND
5		TO PROVIDE SAFE AND RELIABLE SERVICE?
6	A	Quite simply, sales volumes have declined even though the need to maintain service
7		reliability and service, to replace aging infrastructure, and to address public policy
8		objectives have continued, or even increased. For example, investments required to
9		maintain system integrity and safety do not generate incremental revenue through
10		additional volume growth. Unlike prior periods, when traditional cost of service
11		regulation and volume growth enabled the timely return of and on incremental non-
12		revenue producing investments, the current environment does not.
13		As a result, utilities such as Liberty cannot rely on load growth or increased
14		profitability generated through reduced O&M costs to fund their infrastructure
15		replacements, or to sustain their financial integrity as those investments are being
16		undertaken. That condition presents considerable financial challenges for utilities that
17		like Liberty, have a continuing need to invest significant amounts of capital in non-
18		revenue producing infrastructure. That earnings pressure becomes even more acute as the
19		rate of capital expenditures accelerates.
20		The ability to efficiently acquire the capital needed to fund the growing level of
21		infrastructure investments is dependent on the ability to recover that investment in a

Timely cost recovery of prudently incurred safety and reliability

timely manner. As noted by the American Gas Association:

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investments is of utmost importance to the financial stability of natural gas utilities. Because traditional ratemaking allows recovery of infrastructure investments only following approval in a rate case, there is often a multi-year delay before the recovery of such investments begins. Investments that are recovered long after they are incurred cause the utility to bear carrying costs without the opportunity to recover these prudent expenditures. Credit agencies criticize companies with lag in the recovery of their costs and assign a lower credit rating to such utilities that ultimately translates into higher rates for customers. The only alternative is to file a rate case each year, which is a costly activity that also leads to higher rates for customers.²

Increasing capital investments, together with reduced sales, have created a circumstance under which each dollar of invested assets produces fewer dollars of revenue. When that occurs, the ability to fund capital investments through growth-related revenue increases will be limited. As the American Gas Association noted, absent other solutions, the only alternative to funding those investments is more frequent rate filings.

18 Q. HAVE FINANCIAL PARTICIPANTS SUCH AS RATING AGENCIES 19 RECOGNIZED THE CONCERNS SUMMARIZED ABOVE?

A.

Yes, they have. Standard and Poor's ("S&P"), for example, states that "[o]ne significant aspect of regulatory risk that influences credit quality is the regulatory environment in the jurisdictions where a utility operates." S&P explains that "[w]hen we evaluate U.S utility regulatory environments, we consider financial stability to be of substantial importance. Cash takes precedence in credit analysis. A regulatory jurisdiction that recognizes the significance of cash flow in its decision-making is one that will appeal to

American Gas Association, Infrastructure Cost Recovery Update, June, 2012, at 2.

S&P Global Ratings, RatingsDirect, "Assessing U.S. Investor-Owned Utility Regulatory Environments," August 10, 2016, at 2.

creditors.",4

Similarly, Moody's states that regulators' "actions have a significant impact on the environment in which a utility operates." Moody's considers the regulatory structure to be so important that 50.00 percent of the factors that weigh in a ratings determination are related to the nature of regulation. Among the factors considered by Moody's in assessing the regulatory framework are the effect of regulatory actions on cash flow generation:

As the revenues set by the regulator are a primary component of a utility's cash flow, the utility's ability to obtain predictable and supportive treatment within its regulatory framework is one of the most significant factors in assessing a utility's credit quality. The regulatory framework generally provides more certainty around a utility's cash flow and typically allows the company to operate with significantly less cushion in its cash flow metrics than comparably rated companies in other industrial sectors.⁷

While the Infrastructure System Replacement Surcharge ("ISRS") mechanism in Missouri has been a positive factor in addressing this issue, in my view additional measures are necessary and I believe rating agencies would see the Company's proposed structures as credit-supportive which, ultimately, is in the best interests of customers and investors.

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Ibid., at 6.

Moody's Investor Service, Consistency and Predictability of Regulatory Decisions Drive Differences in US Utility Credit Profiles, July 21, 2014, at 2.

Moody's Investors Service, Rating Methodology; Regulated Gas and Electric Utilities at 6 (Dec. 23, 2013).

Moody's Investors Service, Regulatory Frameworks – Ratings and Credit Quality for Investor-Owned Utilities at 2 (June 18, 2010).

1 Q. TURNING TO THE COMPANY'S PROPOSALS, WHY ARE THEY NOW

2 **NEEDED?**

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A.

The request is necessary because the stability of having an opportunity to achieve its authorized return is important to the Company and its customers to offset (1) the effect of reduced sales volumes on the recovery of revenues authorized by the Commission in the Company's most recent rate case, GR-2014-0152; (2) persistent increases in operating costs and expenses; and (3) the cost of carrying infrastructure investments not yet incorporated into rates. Because those factors are both persistent and generally beyond the Company's control, without the requested regulatory reforms, Liberty will need to seek rate more frequent rate relief to maintain the financial integrity necessary to meet its obligation to provide safe and reliable distribution service to customers.

12 Q. PLEASE DESCRIBE THE TREND IN THE COMPANY'S SALES.

13 A. The Company's⁸ customer count and end user volumes have declined from 2003 to 2016, 14 resulting in lower sales. The total number of end user customers has declined from 15 almost 60,000 in 2003 to approximately 53,000 in 2016.⁹ On a per-customer basis, 16 annual consumption has declined from 110 dekatherms (Dth) to 89 Dth over the same 17 period.¹⁰ As shown in Chart 1 below, the decline is primarily due to warmer weather, as 18 sales volume is strongly correlated to heating degree days. Additionally, increased 19 conservation has contributed to the decline.

Historical customer and sales volume trends presented here represent that of the Company (2012-2016) and of its predecessor Atmos Energy (2003-2011).

Source: SNL Financial.

¹⁰ Ibid.

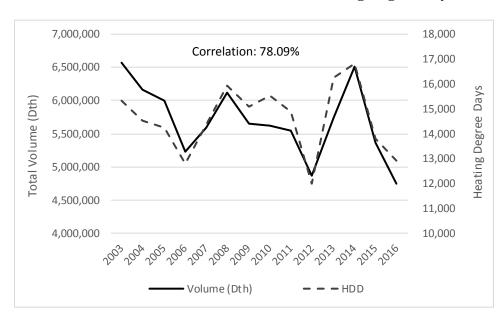


Chart 1: Natural Gas Sales Volume vs. Heating Degree Days¹¹

2 Q. WHAT EFFECT DO DECLINING SALES HAVE ON THE COMPANY AND ITS

CUSTOMERS?

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A. As noted earlier, lower sales volumes produce lower revenue, which reduces the Company's ability to recover its fixed costs, putting upward pressure on rates and increasing the burden on customers. Absent an ability to offset lower revenues with cost savings, the result is an inability to earn the Company's authorized return.

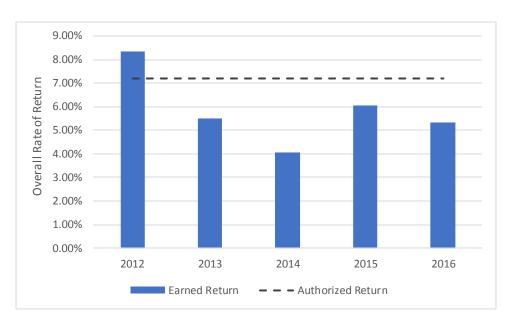
Q. HAS THE COMPANY BEEN ABLE TO EARN ITS AUTHORIZED RETURN ON A CONSISTENT BASIS?

10 A. No, it has not. The combination of lower revenues described above, together with increases in costs and non-revenue producing capital investment have prevented the Company from earning its authorized return over a sustained period between rate cases (see Chart 2 below). Going forward, regulatory rate reform will be necessary to maintain

Source: SNL Financial; Heating Degree Days data provided by the Company.

the financial integrity necessary to provide safe and reliable service.

Chart 2: Overall Rate of Return: Earned vs. Authorized¹²



3 IV. RATEMAKING PRINCIPLES AND THE BENEFITS OF ALTERNATIVE

4 RATEMAKING MECHANISMS

5 Q. WOULD THE COMPANY AND ITS CUSTOMERS BENEFIT FROM

6 **REGULATORY REFORM?**

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7 A. Yes. As explained below, consistent with universal ratemaking principles, the proposed

regulatory reforms provide important benefits to both customers and investors.

9 Q. WHAT ARE RATEMAKING PRINCIPLES?

10 A. In his seminal text Principles of Public Utility Rates, James C. Bonbright outlined the

Source: SNL Financial. Earned return calculated as Net Utility Operating Income / Net Utility Plant. In GR-2014-0152, the Commission authorized Liberty an Overall Rate of Return of 7.22 percent. The previous two rate cases (GR-2010-0192 and GR-2006-0387) for the Company's predecessor, Atmos Energy, included settlements that did not determine the rate of return.

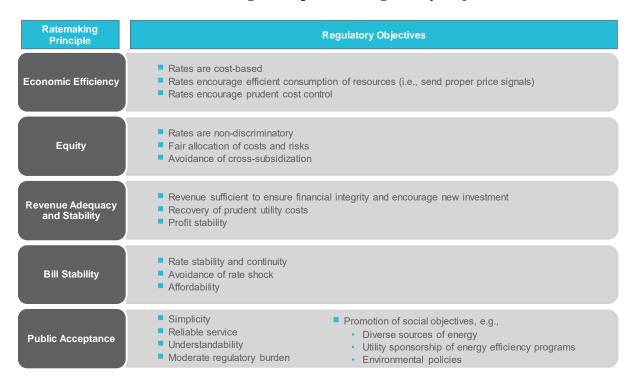
principles of a sound rate structure, as summarized in Chart 3 below:

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Chart 3: Ratemaking Principles and Regulatory Objectives¹³



As discussed below, the Company's proposed mechanisms reflect those ratemaking principles, and are intended to satisfy the multiple, sometimes conflicting objectives.

6 Q. HOW DO THE COMPANY'S PROPOSED ALTERNATIVE RATEMAKING

MECHANISMS PROMOTE ECONOMIC EFFICIENCY?

A. The Company's proposed revenue decoupling mechanism encourages more efficient consumption by breaking the link between sales volume and revenues, which removes the disincentive to promote conservation measures.

Utility Challenges: 2015 Update, Edison Electric Institute, November 11, 2015.

Sources: Sources: James C. Bonbright, Albert L. Danielsen and David R. Kamerschen, *Principles of Public Utility Rates*, 2nd Edition, Public Utilities Reports (March, 1988), *Alternative Rate Mechanisms and Their Compatibility with State Utility Commission Objectives*, National Regulatory Research Institute, April 2014; *Alternative Electricity Ratemaking Mechanisms Adopted By Other States*, Christensen Associates prepared for Public Utility Commission of Texas, May 25, 2016; *Alternative Regulation for Emerging*

Q. 1 DO THE **COMPANY'S PROPOSED ALTERNATIVE RATEMAKING** 2 MECHANISMS ALSO PROMOTE EQUITY? 3 A. As explained in more detail in Section VI, the Company's proposed revenue decoupling 4 mechanism promotes equity by more fairly enabling the Company's recovery of fixed 5 costs. Decoupling also may mitigate cross-subsidization that may affect low income and 6 low volume customers. 7 Q. DO THE **COMPANY'S PROPOSED ALTERNATIVE RATEMAKING** 8 MECHANISMS ALSO ENABLE REVENUE AND BILL STABILITY? 9 Yes, they do. As also explained in more detail in Section VI, the Company's proposed A. 10 revenue decoupling mechanism stabilizes the Company's revenues by mitigating the 11 over- and under-recovery of costs resulting from fluctuations in customer usage. As 12 noted earlier, revenue stability benefits both the Company and customers by ensuring the 13 Company's financial integrity, which allows the company to provide safe and reliable 14 service. 15 Moreover, revenue stability enables bill stability. In a traditional cost-of-service 16 framework, rate shock can occur when large capital investments are put into rate base at 17 once. Under decoupling, actual revenues are reconciled against authorized levels, and 18 rates are adjusted up or down accordingly. Those adjustments, however, are generally

20 Q. ARE THE PROPOSED ALTERNATIVE RATE MECHANISMS GENERALLY

21 **ACCEPTED BY THE PUBLIC?**

small, thereby mitigating rate shock.

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22 A. Yes. As explained below, alternative ratemaking mechanisms are common, as a substantial number of utilities have implemented mechanisms similar to those proposed

by the Company.¹⁴ Further, the proposed mechanisms alleviate regulatory lag and improve the Company's financial health, which would diminish the need to file frequent, costly rate cases. Moreover, the proposed vegetation management tracker and CR Tracker recover costs incurred to improve safety and reliability. Lastly, as noted earlier, revenue decoupling encourages conservation and encourages the Company's pursuit of energy efficiency measures.

V. ALTERNATIVE RATEMAKING TRENDS IN THE U.S.

Q. PLEASE DESCRIBE THE RANGE OF ALTERNATIVE MECHANISMS IMPLEMENTED BY UTILITIES.

Alternative ratemaking mechanisms fall along a spectrum from incremental reform to comprehensive reform. Mechanisms that represent incremental reform apply to a single component, such as a purchased gas adjustment mechanism or a future test year. Mechanisms that represent comprehensive reform include ratemaking structures that address the overall revenue requirement such as revenue decoupling, multiyear rate plans, formula rates, and performance based rates.

16 Q. PLEASE EXPLAIN, GENERALLY, THE TREND IN REGULATORY 17 RATEMAKING REFORM IN THE UNITED STATES.

A. Alternative ratemaking mechanisms have been implemented to supplement the traditional ratemaking process, primarily to mitigate regulatory lag. Cost recovery adjustment mechanisms arose from the need to address rapidly rising fuel costs during the early 1970s, when fuel prices climbed more rapidly than the utilities could obtain rate

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See Schedule RBH-1.

recognition of the increased costs through the traditional rate case process. During that time, utility earnings were under considerable pressure, which prompted jurisdictions to allow more timely recovery of cost increases that were beyond the control of the utilities.¹⁵

A.

Alternative ratemaking has been of increased interest in recent years due to rising and volatile utility costs, growth in non-revenue producing capital expenditures, and sluggish demand growth. Declining usage per customer and slow economic growth has placed pressure on traditional volume-based, cost-of-service ratemaking. Further, sending a volume-based price signal to recover largely fixed costs to accommodate peak usage is not economically efficient, and generally violates the cost causation ratemaking principle.

More recently, states have pursued certain public policy initiatives and have developed mechanisms to support and advance those policies. For gas utilities, alternative ratemaking mechanisms have been spurred by declining usage per customer, environmental and safety concerns, state-mandated energy efficiency programs, and a desire to improve utility performance.

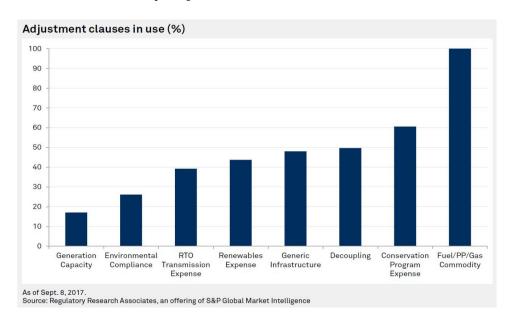
O. ARE ALTERNATIVE RATEMAKING MECHANISMS COMMON IN THE U.S.?

Yes, they are. As shown on Chart 4 below, according to Regulatory Research Associates ("RRA"), all utilities have a mechanism to recover fuel, purchased power, or gas commodity costs. Further, half of the utilities covered by RRA have infrastructure cost recovery or revenue decoupling mechanisms in place, and 60.00 percent have

Source: Regulatory Research Associates, *Adjustment Clauses: A State-by-State Overview*, September 12, 2017, at 2.

1 mechanisms to recover energy efficiency program expenses.

Chart 4: Cost Recovery Adjustment Mechanisms in Place at U.S. Utilities¹⁶



Additionally, more comprehensive forms of alternative mechanisms, such as multiyear rate plans and formula rate plans, have been implemented in 24 states.¹⁷

VI. THE COMPANY'S PROPOSED ALTERNATIVE RATE STRUCTURES

7 Revenue Decoupling

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8 Q. PLEASE DESCRIBE THE PRIMARY OBJECTIVES OF DECOUPLING

9 **MECHANISMS.**

A. The term "decoupling" encompasses a category of alternative ratemaking mechanisms designed to decouple, or break, the link between a utility's revenue and its volume of sales. Decoupling is intended to align the interests of customers and shareholders by

Regulatory Research Associates, *Adjustment Clauses: A State-by-State Overview*, September 12, 2017.

Source: Lowry, Makos, Waschbusch, *Alternative Regulation for Emerging Utility Challenges: 2015 Update*, Edison Electric Institute, November 11, 2015.

allowing the utility to recover its allowed revenues while also supporting programs to promote energy efficiency.

A.

A central principle underlying the concept of decoupling is that the utility's costs of providing service (particularly distribution service) are primarily fixed and do not vary based on sales volume. Like other utilities, Liberty incurs customer-related and demand-driven costs to provide distribution service that generally are not affected by its sales volume. By "decoupling" revenues from the volume of sales, the Company is better able to recover the revenues relied upon in setting rates when customers consume less natural gas, and as a result, is financially indifferent to changes in customer usage due to factors beyond the Company's control.

- Q. PLEASE PROVIDE SOME EXAMPLES OF "CUSTOMER-RELATED" AND "DEMAND-DRIVEN" FIXED COSTS THAT ARE INCURRED BY THE COMPANY.
 - A utility's customer-related costs are the fixed costs incurred to serve customers regardless of the amount of energy consumed. These include items such as billing, meter reading, collections, call centers, meters, laterals, and other infrastructure and expenses necessary to connect customers to the distribution system. Demand-driven costs are the distribution system investments necessary to meet customers' peak demands on the system or individual lines. These costs include, for example, mains and gate stations that are sized, constructed, and maintained to meet customers' maximum peak demands. Once the Company makes these investments to serve customers and meet peak demand, the costs do not vary based on sales volumes; they are largely "fixed." In other words, the cost of those distribution system investments and services does not change based on

1 customers' consumption of natural gas.

2 Q. WHY IS DECOUPLING AN APPROPRIATE RATEMAKING MECHANISM

FOR THE COMPANY?

A.

A. Although the Company's cost of providing distribution service is not driven by customers' natural gas consumption, a significant portion of its revenue is recovered through volume-based charges. As noted earlier, this creates a misalignment between cost causation and cost recovery.

For the Company's residential rate classes, 100.00 percent of the cost of providing distribution service is fixed. None of the Company's distribution costs vary with volume-based sales. However, 41.00 percent of residential revenue is recovered based on consumption through non-fixed (i.e., variable) volume-based charges. At a total Company level, as with residential service, none of the distribution costs vary with sales volumes as they are 100.00 percent fixed; yet nearly 49.00 percent of revenues are derived from variable volume-based charges.

15 Q. WHAT FACTORS CONTRIBUTE TO FLUCTUATIONS IN SALES VOLUMES?

There are several factors that contribute to the fluctuations in customer usage for a gas utility. For the Company, the most significant factor that contributes to fluctuations in customer usage is weather, and more specifically, fluctuations in temperature (*see* Chart 1 above). In colder weather customer usage increases; in warmer weather it decreases. Other factors include customer-initiated conservation efforts and the Company's implementation of energy efficiency measures.

1 Q. DO OTHER UTILITIES EXPERIENCE SIMILAR OVER- AND UNDER-

2 **RECOVERY OF COSTS?**

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- 3 A. Yes. This type of over- and under-recovery of costs is not unique to Liberty it is a
- 4 challenge for the natural gas industry. Gas utilities in 33 jurisdictions have mechanisms
- 5 in place that decouple revenues from sales volume in a full or limited fashion. ¹⁸

6 Q. PLEASE DESCRIBE BRIEFLY THE COMPANY'S PROPOSED VBA RIDER.

A. As explained in more detail by Mr. Lyons, the Company proposes a VBA Rider, which would reconcile annually differences between actual and authorized revenues (*i.e.*, revenues reflected in current base rates that were approved by the Commission in the most recent rate case proceeding), thereby mitigating the over- and under- recovery of

costs resulting from fluctuations in customer usage faced by many gas utilities.

Q. WHAT ARE THE BENEFITS OF THE VBA RIDER?

A. The VBA Rider is a symmetrical and transparent formula for collecting the approved distribution revenue requirements – no more, no less. There are additional benefits to customers from the VBA Rider. Specifically, the VBA Rider reduces the reliance on an imperfect forecasting process, and diminishes the advantage a utility has in choosing the timing of the next rate case. Because fluctuations in weather are beyond the Company's control, the VBA Rider also allows the Company to focus on things it can control to provide safe and reliable service. It also reduces the potential for cross-subsidization between low volume and higher volume customers present in fixed-variable rate designs. Additionally, the VBA Rider protects consumers against the negative effects of declining

See Regulatory Research Associates, Adjustment Clauses: A State-by-State Overview" September 12, 2017. Includes lost revenue adjustment mechanisms for energy-efficiency programs, weather normalization adjustment mechanisms, and straight fixed variable rate designs. See also, Schedule RBH-1.

load on utilities and revenue losses attributable to energy efficiency programs and, therefore, encourages adoption of customer-initiated and utility-sponsored energy efficiency measures.

Lastly, the decoupling mechanism ensures that customer bills are more stable over the longer term. To the extent actual revenues are higher than approved levels in a given period (and therefore bills for distribution service are higher than anticipated), rates will be reduced. The reverse would be true in that if revenues (and bills) are lower than anticipated, rates would increase. In this regard, decoupling will smooth customer bills over the longer term such that the rates they pay recover only the approved revenue levels. As such, the decoupling mechanism ensures that the customer pays no more than the amount authorized by the Commission.

As explained earlier, revenue stability is an important ratemaking principle that has governed regulatory commissions' rate-setting objectives for decades.¹⁹ The VBA Rider provides revenue stability that enables the Company to recover its cost of service, the majority of which is fixed. As such, the VBA Rider supports Liberty's financial health to provide safe, reliable and efficient service to its customers. As discussed in Section IV above, revenue stability also enables bill stability, another important ratemaking principle that customers benefit from.

Q. IS THE COMPANY'S PROPOSED MECHANISM CONSISTENT WITH MISSOURI STATUTE?

A. Although I am not an attorney, my plain reading of relevant statutes suggests it is. RSMo

Sources: James C. Bonbright, Albert L. Danielsen and David R. Kamerschen, "Principles of Public Utility Rates, 2nd Edition", Public Utilities Reports (March, 1988), at 382-383, 387-388.

ROBERT B. HEVERT DIRECT TESTIMONY

386.266.3 specifically states that "...any gas corporation may make an application to the commission to approve rate schedules authorizing periodic rate adjustments outside of general rate proceedings to reflect the non-gas revenue effects of increases or decreases in residential and commercial customer usage due to variations in either weather, conservation, or both." On balance, it is my understanding that the statute authorizes the Commission to approve a rate adjustment mechanism that addresses between rate cases the revenue effects from changes in residential and commercial usage.

A.

To date, the Commission has addressed this issue by authorizing a higher monthly customer charge to recover fixed costs, or by establishing rate blocks in which most fixed costs will be recovered once the customer uses a relatively modest amount of gas. Although those approaches have somewhat mitigated revenue volatility, they have shortcomings. Depending on the situation, a high customer charge may not be equitable for low-income and low-volume customers, as those customers may pay more than their share of fixed costs, potentially subsidizing higher use customers.

Q. IF DECOUPLING REMOVES THE LINK BETWEEN SALES AND REVENUES, DOES IT GUARANTEE A UTILITY WILL ACHIEVE ITS ALLOWED RATE OF RETURN?

No, it does not. Decoupling only addresses the revenue component of the income statement, not operating expenses or rate base investment, and is designed to recover only the amount of revenue authorized by the Commission. As explained earlier, under traditional cost-of-service ratemaking, utilities rely on incremental revenues beyond the rate case rate year as a means of maintaining a reasonable rate of return on investment in between rate cases. Those additional funds historically have financed necessary capital

investment and helped offset inflationary pressures. When the costs of providing service escalates faster than sales (and therefore revenue), in the long run the utility's rate of return will likely erode. Stable, predictable revenues over time help the utility to maintain a reasonable level of earnings, and to avoid frequent and costly rate cases. Decoupling mechanisms therefore may stabilize a utility's revenues and improve its financial integrity, enabling the utility to provide safe and reliable service to customers. Decoupling does not, however, guarantee a base level of earnings or rate of return, nor does it create windfall profits for the utility.

Cost Recovery Adjustment Mechanisms

A.

10 Q. PLEASE EXPLAIN, GENERALLY, THE PURPOSE OF COST RECOVERY 11 ADJUSTMENT MECHANISMS.

As discussed above, cost recovery adjustment mechanisms have been implemented by utilities since the 1970s to provide more timely recovery of costs between rate cases. As a principle, these adjustment mechanisms have been implemented to recover costs that are: (1) large, (2) volatile, and/or (3) exogenous, or outside of the utility's control. More recently, adjustment mechanisms have been implemented to address public policies mandated by state statute or by the regulatory commission. Some examples include energy efficiency programs and infrastructure replacement programs, such as the Company's current Infrastructure System Replacement Surcharge ("ISRS"). As noted earlier, all utilities now have an adjustment mechanism in place to recover fuel, purchased power, or gas commodity costs, such as the Company's Purchased Gas Adjustment ("PGA") mechanism.

As noted earlier, and as explained further by Mr. Lyons, the Company is

1	proposing to implement the CR Tracker to defer through a regulatory asset for future
2	recovery in rates the carrying costs associated with incremental capital spending not
3	included in base rates, and three additional tracking mechanisms to track and reconcile
4	actual expenses incurred during the year with those reflected in current base rates. The
5	proposed O&M trackers would track and reconcile expenses related to: (1) Ad Valorem
6	Taxes; (2) Bad Debt expenses; and (3) Vegetation or Right-of-Way Management
7	expenses.

8 Q. ARE THE COSTS ASSOCIATED WITH THOSE MECHANISMS LARGE, 9 VOLATILE, AND/OR BEYOND THE COMPANY'S CONTROL?

10 A. Yes. For example, the Company's bad debt expense can vary widely with wholesale gas
11 costs, temperature, and the state of the economy. Similarly, the Company's property tax
12 expense depends on state and local government assessment inputs and tax rate changes,
13 of which the Company has no control over.

14 Q. ARE THE PROPOSALS CONSISTENT WITH MISSOURI STATUTE?

15 A. Yes. The proposed tracking mechanisms do not adjust rates between rate cases; rather,
16 costs are reconciled against expenses included in base rates, and any expenses under or
17 over that amount will be deferred in a regulatory asset/liability account to be included in
18 rate base in the next rate case, with a proposed amortization schedule.

19 Q. ARE SIMILAR MECHANISMS IN PLACE AT OTHER NATURAL GAS

20 UTILITIES?

A. Yes. According to the American Gas Association ("AGA"), 96 gas utilities in 35 jurisdictions have full infrastructure cost recovery mechanisms in place. Another eight companies in three states have infrastructure cost recovery mechanisms that are more

- limited in nature. With respect to bad debt cost recovery, the AGA notes 64 natural gas utilities in 26 jurisdictions have been authorized a mechanism to recover bad debt expenses (*see* Schedule RBH-1).
- 4 Q. HOW DO CUSTOMERS BENEFIT FROM THE PROPOSED COST RECOVERY

5 **ADJUSTMENT MECHANISMS?**

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A. The proposed mechanisms enable the Company to maintain its financial integrity to the benefit of customers. A financially healthy utility has a greater capability to invest in its system and provide safe and reliable service. Further, as noted earlier, a utility's credit rating depends largely on its financial integrity; a higher credit rating results in lower debt costs for customers. Additionally, a financially healthy utility can better withstand adverse changes in business or market conditions.

12 Q. WHY SHOULD THE COMMISSION APPROVE THE COMPANY'S PROPOSED

COST RECOVERY ADJUSTMENT MECHANISMS?

The proposed mechanisms alleviate the challenge of eroding revenues and increasing costs, while providing benefits to customers. Without timely cost recovery, certain of these important expenditures might be deferred or reduced. Others, such as the Company's bad debt expense and property tax expense, cannot be avoided and are beyond the Company's control. Moreover, the investments proposed for recovery are non-revenue producing. That is, none of the investments generates additional revenues for the Company to offset the expenditures being made. Lastly, the proposed mechanisms are consistent with Missouri statute. For these reasons, the Commission should approve the Company's proposed cost recovery adjustment mechanisms.

VII. **SUMMARY AND CONCLUSIONS**

2 Q. PLEASE BRIEFLY SUMMARIZE YOUR TESTIMONY.

A. The Company's proposed rate reforms arise from circumstances that have affected many natural gas utilities throughout the Country. The difficult combination of declining 5 customer usage, sustained capital investments, and large and volatile operating costs has 6 created a circumstance in which it will become increasingly challenging under traditional 7 cost-of-service ratemaking to maintain the strong financial profile that benefits both customers and investors. The proposed structures are meant to address that financial strain, enable the financial profile needed to continue providing safe and reliable service, while reducing the need for frequent rate filings.

11 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

12 A. Yes, it does.

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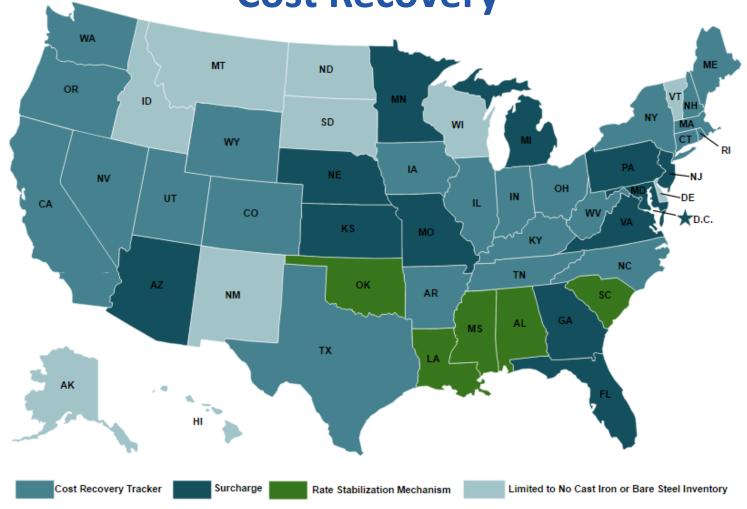


Innovative Rates, Non-Volumetric Rates, and Tracking Mechanisms: Current List

As of December 2016



States with Accelerated Infrastructure **Cost Recovery**



Utilities with Full Infrastructure Cost Recovery Mechanisms

1.	AL – Alabama Gas Company	36.	MA – Columbia Gas of Massachusetts	66.	OK – CenterPoint Energy
2.	AL – Mobile Gas Service	37.	MA – National Grid Massachusetts	67.	OR – Avista Corp.
3.	AR – Arkansas Oklahoma Gas	38.	MA – Eversource Energy	68.	OR – NW Natural
4.	AR SourceGas	39.	MA – Liberty Utilities	69.	PA – Columbia Gas of Pennsylvania
5.	AR – CenterPoint Energy	40.	MA—Unitil	70.	PA – Equitable Gas
6. 7	CA – San Diego Gas and Electric	41.	MD – Baltimore Gas and Electric	71.	PA – Peoples Gas Company
7. 8.	CA – Southern California Gas CA – Southwest Gas	42.	MD – Columbia Gas of Maryland	72.	PA – Peoples TWP
o. 9.	CO – Public Service Co. of Colorado	43.	MD – Washington Gas	73.	PA – UGI Central Penn Gas
10.	CO – Atmos Energy	44.	MI – Consumers Energy	74.	PA – UGI Penn Natural Gas
11.	CO SourceGas	45.	MI – DTE	75.	PA – PECO
12.	CT – Connecticut Natural Gas	46.	MI – SEMCO Energy	76.	PA – Philadelphia Gas Works
13.	DC – Washington Gas	47.	MN – Xcel Energy	77.	RI – National Grid Narragansett Gas
14.	FL – Chesapeake Utilities	48.	MO – Ameren Missouri	77. 78.	SC – Piedmont Natural Gas
15.	FL – Florida Public Utilities Company	49.	MO – Liberty Utilities	78. 79.	SC – South Carolina Electric and Gas
16.	FL – Florida City Gas		•		
17.	FL – TECO Peoples Gas	50.	MO – Laclede Gas	80.	TN – Atmos Energy
18.	GA – Atlanta Gas Light	51.	MO – Missouri Gas Energy	81.	TN – Piedmont Natural Gas
19.	GA – Liberty Utilities	52.	MS – Atmos Energy	82.	TX – Atmos Energy
20.	IL – Ameren Illinois	53.	MS – CenterPoint Energy	83.	TX – CenterPoint Energy
21.	IL – NICOR Gas	54.	NC – Piedmont Natural Gas	84.	TX – Texas Gas Service
22.	IL – Peoples Gas	55.	NC – Public Service of North Carolina	85.	UT – Questar Gas
23. 24.	IN – Vectren North Indiana Gas	56.	NH – Liberty Utilities	86.	VA – Atmos Energy
24. 25.	IN – Vectren South SIGECO IN – NIPSCO	57.	NJ – New Jersey Natural	87.	VA – Columbia Gas of Virginia
26.	KS – Atmos Energy	58.	NJ – Elizabethtown Gas	88.	VA – Virginia Natural Gas
27.	KS – Black Hills	59.	NJ – Public Service Electric and Gas	89.	VA – Washington Gas
28.	KS – Kansas Gas Service	60.	NJ – South Jersey Gas	90.	WA – Avista Corporation
29.	KY – Atmos Energy	61.	NV – Southwest Gas	91.	WA – Puget Sound Energy, Inc.
30.	KY – Columbia Gas of Kentucky	62.	OH – Columbia Gas of Ohio	92.	WA – Cascade Natural Gas Company
31.	KY – Delta Natural Gas	63.	OH – Dominion East Ohio	93.	WA – Northwest Natural Gas Company
32.	KY – Duke Energy Kentucky	64.	OH – Duke Energy	94.	WV – Mountaineer Gas Company
33.	LA – CenterPoint Energy	65.	OH – Vectren Ohio	95.	WV- Dominion Hope
34.	LA – Entergy Gulf States			96.	WY– Black Hills
35.	MA—Berkshire Gas				

Limited and Pending Infrastructure Mechanisms

LIMITED – 3 States

- AZ Southwest Gas
- ME Northern Utilities
- NY Consolidated Edison
- NY Corning Natural Gas
- NY National Grid NYC
- NY National Grid Long Island
- NY National Grid Niagara Mohawk
- NY Orange and Rockland

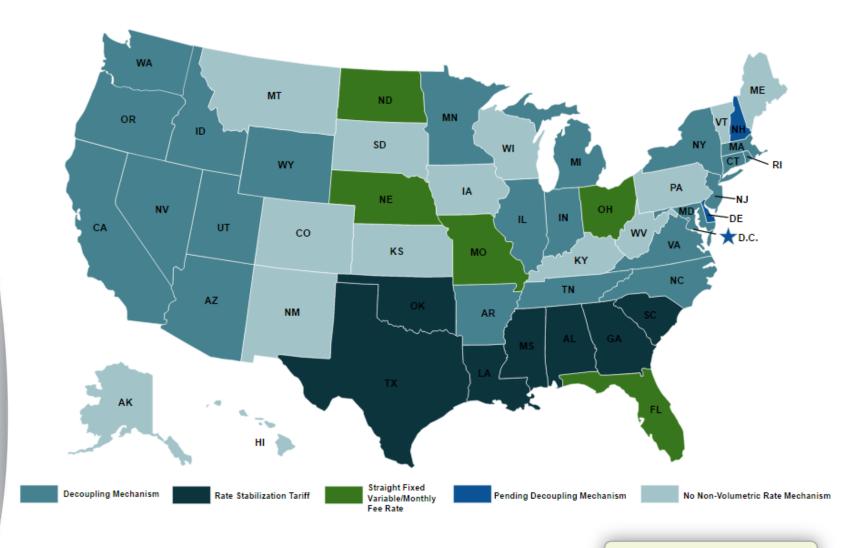
PENDING – 3 States

- KS All utilities
- 2. NJ Elizabethtown Gas
- 3. NY Consolidated Edison
- NY All utilities

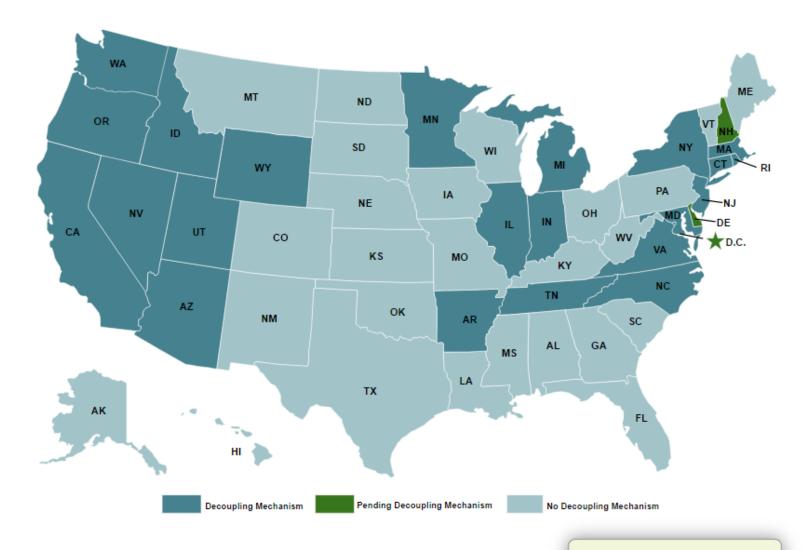
GENERIC RULINGS OR LEGISLATION – 3 States

- Iowa All utilities may apply
- Nebraska All utilities may apply
- West Virginia All utilities may apply

States with Non-Volumetric Rate Designs



Current Status of Decoupling Mechanisms



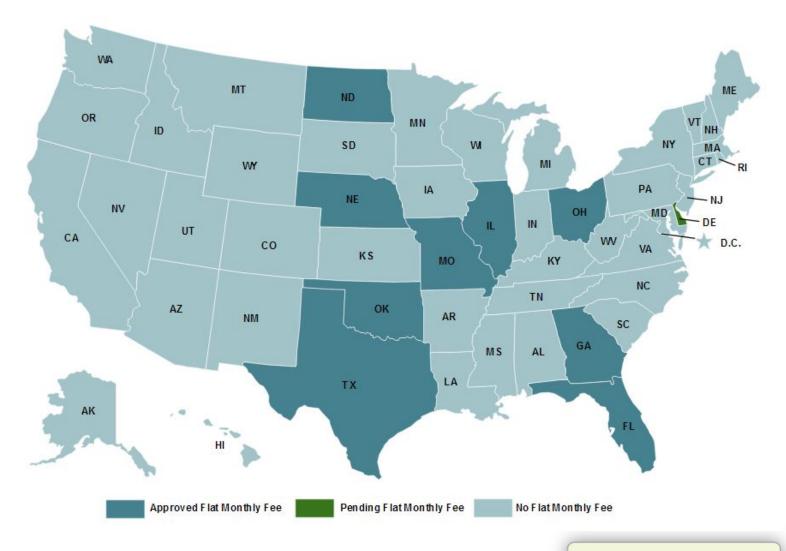
Utilities with Approved Decoupling Mechanisms

 AR – SourceGas AR – CenterPoint Energy AZ – Southwest Gas AZ – Southwest Gas AZ – UNS Gas NJ – New Jersey Natural Gas CA – Pacific Gas and Electric NJ – South Jersey Gas CA – San Diego Gas and Electric CA – Southwest Gas CA – Southwest Gas CA – Southwest Gas CA – Southwest Gas CT – Connecticut Natural Gas NY – National Grid NYC CT – Connecticut Natural Gas NY – National Grid Long Island CT – Connecticut Natural Gas NY – National Grid Niagara Mohawk NY – National Fruel Distribution ID – Avista IL – Ameren Illinois IL – North Shore Gas IL – North Shore Gas IL – North Shore Gas IN – Vectren North Indiana Gas IN – Vectren South SIGECO IN – Vectren South SIGECO MA – Fitchburg Gas and Electric MA – Fitchburg Gas and Electric MA – Fitchburg Gas and Electric MA – Eversource Energy MA – Eversource Energy MA – Eversource Energy VA – Columbia Gas of Virginia MA – Baltimore Gas and Electric MA – Baltimore Gas and Electric MA – Washington Gas MD – Washington Gas MD – Washington Gas MI – Otlumbia Gas of Maryland MM – Consumers Energy WA – Course Gas WA – Puget Sound Energy MM – CenterPoint Energy WY – SourceGas WY – SourceGas WY – Questar Gas WY – Questar Gas 	1.	AR – Arkansas Oklahoma Gas	30.	MN – Minnesota Energy Resources
4. AZ – Southwest Gas 5. AZ – UNS Gas 6. CA – Pacific Gas and Electric 7. CA – San Diego Gas and Electric 8. CA – Southwest Gas 9. CA – Southwest Gas 10. CT – Connecticut Natural Gas 11. GA – Liberty Utilities 12. ID – Avista 13. IL – Ameren Illinois 14. IL – Peoples Gas 15. IL – North Shore Gas 16. IN – Vectren North Indiana Gas 17. IN – Vectren South Indiana Gas 18. IN – Vectren South SIGECO 19. MA – Columbia Gas of Massachusetts 20. MA – Fitchburg Gas and Electric 21. MA – National Grid Massachusetts 22. MA – Eversource Energy 23. MA – Liberty Utilities 24. MD – Baltimore Gas 25. MD – Columbia Gas of Maryland 26. MI – Ots 27. MI – Consumers Energy 28. MI – DTE 33. NJ – New Jersey Natural Gas 34. NJ – Southwest Gas 34. NJ – Southwest Gas 35. NV – Southwest Gas 36. NY – Southwest Gas 37. NY – National Grid NyC 38. NY – National Grid Niagara Mohawk 39. NY – National Fiel Distribution 40. NY – National Fiel Distribution 41. NY – New York State Electric and Gas 42. NY – Orange and Rockland 43. NY – Rochester Gas and Electric 44. NY – Central Hudson Gas and Electric 56. OR – Avista Corp. 57. OR – Avista Corp. 58. OR – Avista Corp. 59. UT – Questar Gas 50. UT – Questar Gas 50. UT – Questar Gas 51. VA – Columbia Gas of Virginia 52. VA – Virginia Natural Gas 53. VA – Washington Gas 54. WA – Avista Corp. 55. WA – Cascade Natural Gas 56. WA – Puget Sound Energy 57. WY – SourceGas	2.	AR – SourceGas	31.	NC – Piedmont Natural Gas
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 CT – Connecticut Natural Gas GA – Liberty Utilities ID – Avista IL – Ameren Illinois IL – Peoples Gas IL – North Shore Gas IN – Citizens Energy Group IN – Vectren North Indiana Gas IN – Vectren South SIGECO MA – Columbia Gas of Massachusetts MA – National Grid Massachusetts MA – Eversource Energy MA – Liberty Utilities MD – Baltimore Gas MD – Washington Gas MI – Consumers Energy MI – Consumers Energy MI – Onsumers Energy MI – DTE NY – National Grid Niagara Mohawk NY – National Fuel Distribution NY – National Fuel Distribution NY – New York State Electric and Gas NY – Orange and Rockland NY – Rochester Gas and Electric NY – Central Hudson Gas and Electric OR – Avista Corp. OR – Avista Corp. OR – Cascade Natural Gas IN – Vectren South SIGECO OR – Northwest Natural Gas IN – National Grid Narragansett TN – Chattanooga Gas UT – Questar Gas VA – Columbia Gas of Virginia VA – Columbia Gas of Virginia VA – Washington Gas VA – Washington Gas WA – Avista Corp. WA – Avista Corp. WA – Avista Corp. WA – Cascade Natural Gas WA – Puget Sound Energy MI – Consumers Energy WY – SourceGas 	8.	CA – Southern California Gas	37.	NY – National Grid NYC
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 IN – Vectren South SIGECO MA – Columbia Gas of Massachusetts48. MA – Fitchburg Gas and Electric MA – National Grid Massachusetts MA – National Grid Massachusetts MA – Eversource Energy MA – Liberty Utilities MD – Baltimore Gas and Electric MD – Columbia Gas of Maryland MD – Washington Gas MI – Consumers Energy WA – Puget Sound Energy WY – SourceGas 	16.	IN- Citizens Energy Group	45.	OR – Avista Corp.
 MA – Columbia Gas of Massachusetts48. MA – Fitchburg Gas and Electric MA – National Grid Massachusetts MA – National Grid Massachusetts MA – Eversource Energy MA – Liberty Utilities MD – Baltimore Gas and Electric MD – Columbia Gas of Maryland MD – Washington Gas MD – Washington Gas MI – Consumers Energy MI – DTE MY – SourceGas 	17.	IN – Vectren North Indiana Gas	46.	OR – Cascade Natural Gas
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 MA – National Grid Massachusetts MA – Eversource Energy VA – Columbia Gas of Virginia MA – Liberty Utilities VA – Virginia Natural Gas MD – Baltimore Gas and Electric MD – Columbia Gas of Maryland MD – Washington Gas MD – Washington Gas MI – Consumers Energy MI – DTE UT – Questar Gas VA – Columbia Gas of Virginia VA – Virginia Natural Gas VA – Washington Gas WA – Avista Corp. WA – Cascade Natural Gas WA – Puget Sound Energy MI – DTE WY – SourceGas 	19.	MA – Columbia Gas of Massachuset	ts48.	RI – National Grid Narragansett
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 MI—Consumers Energy MI – DTE WA – Puget Sound Energy WY – SourceGas 	25.	MD – Columbia Gas of Maryland	54.	WA – Avista Corp.
28. MI – DTE 57. WY – SourceGas	26.	MD – Washington Gas	55.	WA – Cascade Natural Gas
	27.	MI—Consumers Energy	56.	WA – Puget Sound Energy
29. MN – CenterPoint Energy 58. WY – Questar Gas	28.	MI – DTE	57.	WY – SourceGas
	29.	MN – CenterPoint Energy	58.	WY – Questar Gas

Pending Mechanisms

- DC Washington Gas
- DE Delmarva Power and Light
- ID Intermountain Gas
- MI Consumers Energy
- NH Passed Legislation
- VA Washington Gas

Current Status of Flat Monthly Fee Rate Designs (SFV)



Utilities with Flat Monthly Fee Rate Designs (SFV)

Approved SFV

- GA Atlanta Gas Light Individually determined monthly demand charge
- 2. MO – Missouri Gas Energy – Flat monthly fee
- ND Montana-Dakota Utilities
- ND Xcel Energy Flat monthly fee
- OH Columbia Gas of Ohio Flat monthly fee
- OH Dominion East Ohio Flat monthly fee
- OH Duke Energy Flat monthly fee
- OH Vectren Ohio Flat monthly fee

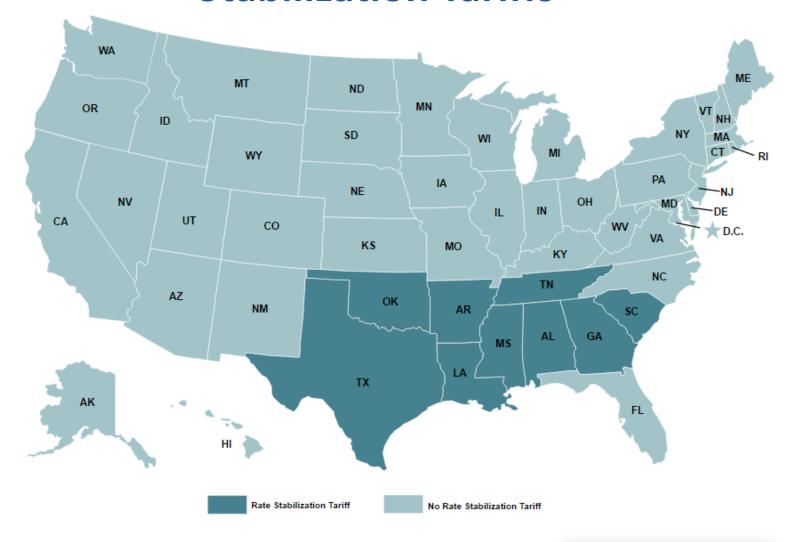
Similar to SFV

- FL TECO Peoples Gas Three-tier monthly charge plus a small variable charge
- 2. IL - Ameren Illinois – 80% revenue for Residential and Small GS Customers per flat fee plus small variable charge
- IL Nicor Gas Flat fee plus a small variable charge
- MO Ameren Modified rate blocks for Residential Service customers 4.
- MO Liberty Utilities Flat fee plus a small variable charge
- MO Laclede Gas Modified rate blocks
- NE Black Hills Declining rate blocks
- NE SourceGas Modified rate blocks
- OK Oklahoma Natural Gas Two-tier plan Offers customers a choice
- TX Texas Gas Service Flat fee up to 200 ccf/month

Pending

DE – Delmarva Power and Light

Current Status of Rate Stabilization Tariffs



Current Status of Rate Stabilization Tariffs

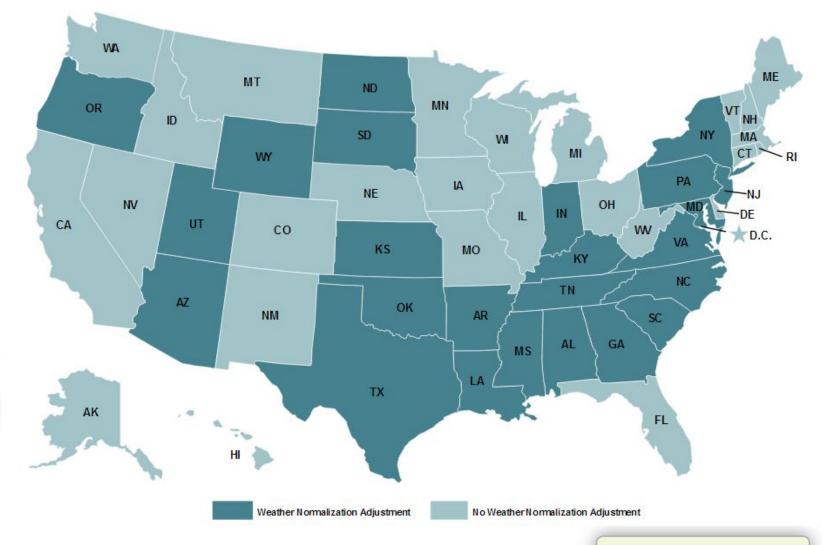
Approved

- 1. AL Alabama Gas
- 2. AL Mobile Gas
- 3. AR CenterPoint Energy
- GA Liberty Utilities
- 5. LA Atmos Energy
- 6. LA CenterPoint Energy
- 7. LA Entergy
- MS Atmos Energy
- MS CenterPoint Energy
- 10. OK CenterPoint Energy
- 11. OK Oklahoma Natural Gas
- 12. SC Piedmont Natural Gas
- 13. SC South Carolina Electric and Gas
- 14. TN Atmos Energy
- 15. TX Atmos Energy

Authorized by Legislation

1. Arkansas

Current Status of Weather Normalization Adjustments

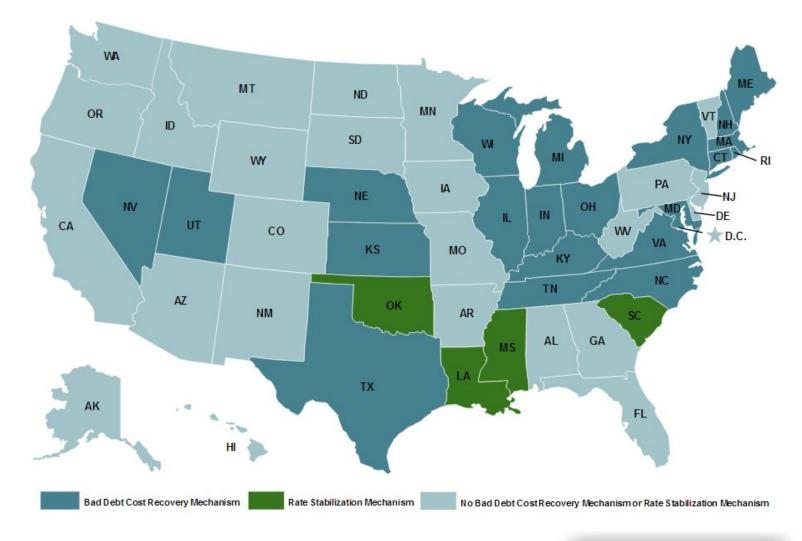


Utilities with Approved Weather Normalization Adjustments

- AZ Southwest Gas 1.
- AL Alabama Gas
- AL Mobile Gas 3.
- AR SourceGas
- AR CenterPoint Energy 5.
- GA Liberty Utilities
- 7. IN – Citizens Energy Group
- IN Vectren North Indiana Gas
- IN Vectren South SIGECO
- KS Atmos Energy
- KS Black Hills 11.
- 12. KS Kansas Gas Service
- KY Atmos Energy
- KY Columbia Gas of Kentucky 14.
- KY Delta Natural Gas 15.
- 16. KY – Louisville Gas and Electric
- LA Atmos Louisiana Gas Service
- 18. LA Atmos Trans Louisiana
- 19. LA CenterPoint Energy
- MD Chesapeake Utilities
- MD Columbia Gas of Maryland
- MS Atmos Energy
- MS CenterPoint Energy
- ND Montana-Dakota Utilities 24.
- 25. NJ – Elizabethtown Gas
- NJ New Jersey Natural Gas
- NJ Public Service Electric and Gas
- NY Central Hudson Gas and Electric
- 29. NY - Consolidated Edison
- NY National Fuel Gas Distribution

- NY National Grid Long Island
- NY National Grid Niagara Mohawk 32.
- 33. NY – National Grid NYC
- NY New York State Electric and Gas 34.
- NY Orange and Rockland Utilities
- 36. NY – Rochester Gas and Electric
- OK CenterPoint Energy
- 38. OK – Oklahoma Natural Gas
- OR Northwest Natural Gas
- PA Columbia Gas of Pennsylvania
- PA Philadelphia Gas Works
- SC Piedmont Natural Gas 42.
- SC South Carolina Electric and Gas 43.
- 44. SD – Montana-Dakota Utilities
- 45. TN – Atmos Energy
- TN Chattanooga Gas
- TN Piedmont Natural Gas 47.
- TX Atmos Energy 48.
- 49. TX – Texas Gas Service
- 50. UT – Questar Gas
- 51. VA – Atmos Energy
- VA City of Richmond Dept. of Public Utilities
- VA Columbia Gas of Virginia
- VA Roanoke Natural Gas 54.
- 55. VA – Southwestern Virginia Natural Gas
- VA Virginia Natural Gas
- VA Washington Gas

Current Status of Bad Debt Cost Recovery



Utilities with Bad Debt Cost Recovery

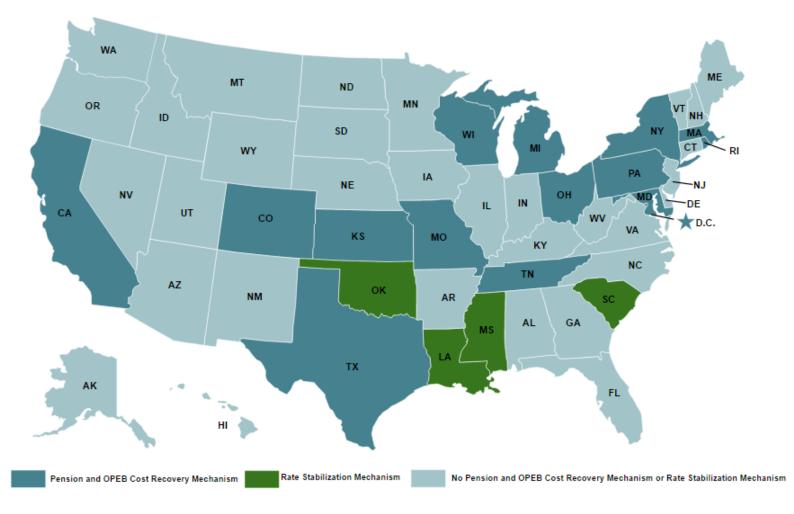
VA – Washington Gas

1.	CT – Connecticut Natural Gas	31.	NE – Black Hills
2.	CT – Southern Connecticut Natural Gas	32.	NE – SourceGas
3.	CT – Yankee Gas	33.	NH – Liberty Utilities
4.	DC – Washington Gas	34.	NH – Northern Utilities
5.	IL – Ameren Illinois	35.	NV – Southwest Gas
6.	IL – Peoples Gas	36.	NY – Central Hudson Gas and Electric
7.	IL – North Shore Gas	37.	NY – Consolidated Edison
8.	IL – Nicor Gas	38.	NY – National Fuel Gas Distribution
9.	IN – Citizens Energy Group	39.	NY – National Grid Long Island
10.	IN - NIPSCO	40.	NY – National Grid Niagara Mohawk
11.	IN – Vectren North Indiana Gas	41.	NY – National Grid NYC
12.	IN – Vectren South SIGECO	42.	NY – New York State Electric and Gas
13.	KS – Atmos Energy	43.	NY – Orange and Rockland Utilities
14.	KS – Black Hills	44.	OH – Columbia Gas of Ohio
15.	KS – Kansas Gas Service	45.	OH – Dominion East Ohio
16.	KY – Atmos Energy	46.	OH – Eastern Natural Gas
17.	KY – Columbia Gas of Kentucky	47.	OH – Pike Natural Gas
18.	KY – Delta Natural Gas	48.	OH – Vectren Energy Delivery of Ohio
19.	KY – Duke Energy	49.	OK – CenterPoint Energy
20.	LA – CenterPoint Energy	50.	OK – Oklahoma Natural Gas
21.	MA – Columbia Gas of Massachusetts	51.	RI – National Grid
22.	MA – National Grid	52.	SC – Piedmont Natural Gas
23.	MA – NSTAR Gas	53.	SC – South Carolina Electric and Gas
24.	MD – Baltimore Gas and Electric	54.	TN – Atmos Energy
25.	MD – Washington Gas	55.	TN – Chattanooga Gas
26.	ME – Northern Utilities	56.	TN – Piedmont Natural Gas
27.	MI – DTE	57.	TX – Atmos Energy
28.	MI – Michigan Gas Utilities	58.	TX – Texas Gas Service
29.	MS – CenterPoint Energy	59.	UT – Questar Gas

NC - Piedmont Natural Gas

- 61. VA Atmos Energy
- VA Columbia Gas of Virginia
- VA Virginia Natural Gas
- WI Wisconsin Gas

Current Status of Pension and OPEB Cost Recovery

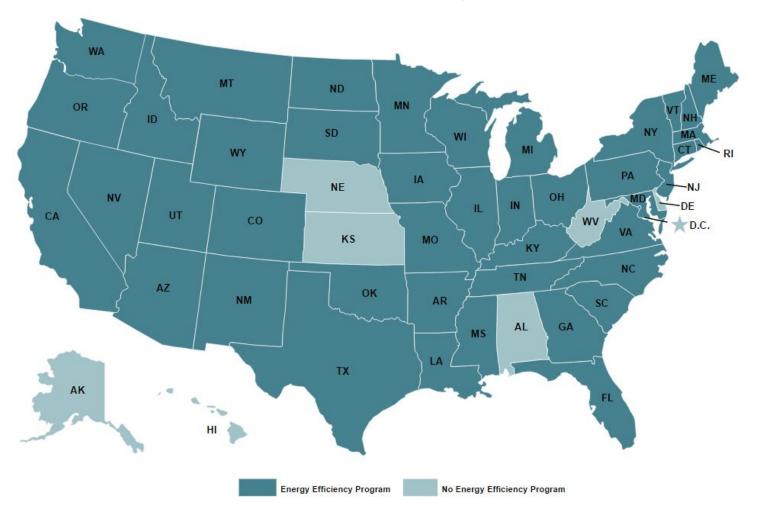


Utilities with Pension and OPEB Cost Recovery

- CA San Diego Gas and Electric
- CA Southern California Gas
- CO Public Service Company of CO (Xcel) 27. OK Oklahoma Natural Gas
- DC Washington Gas
- KS Atmos Energy
- KS- Black Hills
- KS Kansas Gas Service
- LA Atmos Energy
- LA CenterPoint Energy
- MA Columbia Gas of Massachusetts
- MA National Grid 12.
- 13. MA – NSTAR Gas Co.
- 14. MD – Baltimore Gas and Electric Co.
- MI DTF 15.
- 16. MO – Ameren Missouri
- 17. MO Laclede Gas
- 18. MO Missouri Gas Energy
- 19. MS Atmos Energy
- 20. MS CenterPoint Energy
- 21. NY Central Hudson Gas and Electric
- NY Consolidated Edison
- 23. NY Orange and Rockland Utilities
- NY National Grid NYC

- 25. OH Columbia Gas of Ohio
- 26. OK CenterPoint Energy
- PA Philadelphia Gas Works
- 29. RI National Grid
- 30. SC –Piedmont Natural Gas
- 31. SC South Carolina Electric and Gas
- 32. TN Piedmont Natural Gas
- 33. TX Atmos Energy
- 34. TX CenterPoint Energy
- MA Fitchburg Gas and Electric Light Co. 35. WI Wisconsin Power and Light

Current Status of Natural Gas Energy Efficiency Programs



Utilities with Natural Gas Energy Efficiency Programs

	1.	AR – Arkansas Oklahoma Gas	31.	IL – Nicor Gas	61.	MO – Empire Natural Gas
	2.	AR – SourceGas	32.	IL – North Shore Gas	62.	MO – Laclede Gas
	3.	AR – CenterPoint Energy	33.	IL – Peoples Gas	63.	MO – Missouri Gas Energy
	4.	AZ – Southwest Gas	34.	KY – Atmos Energy	64.	MS – Atmos Energy
	5.	CA – Pacific Gas and Electric	35.	KY – Columbia Gas of Kentucky	65.	MS – CenterPoint Energy
	6.	CA – San Diego Gas and Electric	36.	KY – Delta Natural Gas	66.	MT – Montana-Dakota Utilities
	7.	CA – Southern California Gas	37.	KY – Duke Energy Kentucky	67.	NC – Piedmont Natural Gas
	8.	CA – Southwest Gas	38.	KY – Louisville Gas and Electric	68.	NC – Public Service Co. of NC
	9.	CO – Atmos Energy	39.	LA – Atmos Energy	69.	ND – Montana-Dakota Utilities
	10.	CO – Black Hills Energy	40.	LA – CenterPoint Energy	70.	NH – Liberty Utilities
	11.	CO – Colorado Natural Gas	41.	MA – Columbia Gas of Massachusetts	71.	NH – Northern Utilities
	12.	CO – SourceGas	42.	MA – Berkshire Gas	72.	NJ – Elizabethtown Gas
	13.	CO – Public Service Co. of Colorado	43.	MA – Fitchburg Gas and Electric Light	73.	NJ – New Jersey Natural Gas
	14.	CT – Connecticut Natural Gas	44.	MA – Liberty Utilities	74.	NJ – Public Service Electric and Gas
	15.	CT – Southern Connecticut Natural Ga	s45.	MA – National Grid Massachusetts	75.	NJ – South Jersey Gas
	16.	CT – Yankee Gas Service	46.	MA – NSTAR Gas and Electric	76.	NM – New Mexico Gas
	17.	FL – TECO Peoples Gas	47.	MD – Baltimore Gas and Electric	77.	NV – NV Energy
	18.	GA – Atlanta Gas Light	48.	MD – Columbia Gas of Maryland	78.	NV – Southwest Gas
ŀ	19.	IA – Liberty Utilities	49.	MD – Washington Gas	79.	NY – Central Hudson Gas and Electric
ı	20.	IA – Black Hills Energy	50.	ME – Northern Utilities	80.	NY – Consolidated Edison
ı	21.	IA – Interstate Power and Light	51.	MI – Consumers Energy	81.	NY – National Fuel Gas
ı	22.	IA – MidAmerican Energy	52.	MI – DTE	82.	NY – National Grid NY
ı	23.	IN – Citizens Energy Group	53.	MI – Michigan Gas Utilities	83.	NY – National Grid Long Island
ı	24.	IN – NIPSCO	54.	MN – CenterPoint Energy	84.	NY – National Grid Niagara Mohawk
ı	25.	IN – Vectren North Indiana Gas	55.	MN – Great Plains Natural Gas	85.	NY – Orange and Rockland Utilities
ı	26.	IN – Vectren South SIGECO	56.	MN – Interstate Power and Light	86.	NY – St. Lawrence Gas
ı	27.	ID – Avista Utilities	57.	MN – Minnesota Energy Resources	87.	OH – Columbia Gas of Ohio
	28.	ID – Intermountain Gas	58.	MN – Xcel Energy	88.	OH – Dominion East Ohio
	29.	IL – Ameren Illinois	59.	MO – Ameren	89.	OH – Duke Energy
	30.	IL – MidAmerican Energy	60.	MO – Liberty Utilities	90.	OH – Vectren Energy Delivery of Ohio

Utilities with Natural Gas Energy Efficiency Programs (Cont.)

91.	OK – CenterPoint Energy	112.	UT – Questar Gas
92.	OK – Oklahoma Natural Gas	111.	VA – Columbia Gas of Virginia
93.	OR – Avista Utilities	112.	VA – Virginia Natural Gas
94.	OR – Cascade Natural Gas	113.	VA – Washington Gas
95.	OR – Northwest Natural Gas	114.	VT – Vermont Gas Systems
96.	PA – Columbia Gas of Pennsylvania	115.	WA – Avista Utilities
97.	PA – Equitable Gas	116.	WA – Cascade Natural Gas
98.	PA – PECO	117.	WA – Northwest Natural Gas
99.	PA – Peoples Natural Gas	118.	WA – Puget Sound Energy
100.	PA – Philadelphia Gas Works	119.	WI – City Gas
101.	PA – UGI Central Penn Gas	120.	WI – Madison Gas And Electric
102.	PA – UGI Penn Natural Gas	121.	WI – Midwest Natural Gas
103.	PA – UGI Utilities	122.	WI – St. Croix Valley Natural Gas
104.	RI – National Grid	123.	WI – Superior Water, Light and Power
105.	SC – Piedmont Natural Gas	124.	WI – We Energies
106.	SC – South Carolina Electric and Gas	125.	WI – Wisconsin Light and Power
107.	SD – MidAmerican Energy	126.	WI – Wisconsin Public Service
108.	SD – Montana-Dakota Utilities	127.	WI – Xcel Energy
109.	TN – Chattanooga Gas	128.	WY – Montana-Dakota Utilities
110.	TX – Atmos Energy	129.	WY – Questar Gas
111.	TX – Texas Gas Service		

AFFIDAVIT OF ROBERT B. HEVERT

COMMONWEALTH OF MASSACHUSETTS)
COUNTY OF WORCESTER) SS)
On the day of September, 2017, me personally known, who, being by me first ScottMadden, Inc. and acknowledges that document and believes that the statements the his information, knowledge and belief.	he has read the above and foregoing
-/	Robert B. Hevert
Subscribed and sworn to before me this	day of September, 2017.
	Notary Public
My commission expires: March 11	2022