



Study of the Natural Gas Rate Stabilization Act of 2005

South Carolina
Office of Regulatory Staff
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EXECUTIVE SUMMARY

Effective July 1, 2021, Act No. 94, the General Appropriations Bill, Fiscal Year 2021-2022, included language requiring the South Carolina Office of Regulatory Staff (ORS) to review the Natural Gas Rate Stabilization Act of 2005 and make recommendations to the General Assembly. Specifically, as outlined in provision 73.9:

From the funds appropriated and/or authorized to the Office of Regulatory Staff in the current fiscal year, the office shall study the Natural Gas Rate Stabilization Act of 2005 and make recommendations to the General Assembly by December 31, 2021. The study shall include, but is not limited to, examining and recommending any changes to the Natural Gas Rate Stabilization Act of 2005 and determining if the provisions of the Act are in the best interests of the ratepayers and support the provision of safe, reliable, high quality utility service.

ORS completed a review of the impacts of the Natural Gas Rate Stabilization Act of 2005 (RSA) mechanism on natural gas customers. The provisions of S.C. Code Ann. § 58-5-410 have been elected by both natural gas investor-owned natural gas utilities: Dominion Energy South Carolina, Incorporated (DESC) and Piedmont Natural Gas Company (Piedmont) (collectively the "Companies").

ORS reviewed the three alternative rate mechanisms utilized in South Carolina and compared South Carolina's practices to the use of innovative rates and tracking mechanisms by other states. While other alternative rate mechanisms exist, South

Carolina's use of the RSA accomplishes many of the goals embedded in other alternative rate mechanisms.

ORS determined the mechanisms used to set rates for investor-owned natural gas utilities in South Carolina which include the RSA, Purchased Gas Adjustment (PGA), and gas Weather Normalization Adjustment (gWNA), subject to the recommendations herein, are in the best interest of customers and preserve continued investment in and maintenance of utility facilities so as to provide safe, reliable and high-quality utility services. ORS determined the RSA could be improved to enhance transparency and accuracy and recommends the General Assembly consider the following modifications:

1. A more frequent review of the cost of service study for natural gas utilities;
2. Provide mechanisms to incorporate changes in rate design and changes to the RSA statutory language to allow greater flexibility in rate design; and,
3. Update Return on Equity to a limitation on the term of RSA election to no more than five years.

SOUTH CAROLINA NATURAL GAS RATES

Alternative rate recovery mechanisms are implemented throughout the majority of the United States to encourage the replacement of aging infrastructure and ensure the safe and reliable delivery of natural gas. In South Carolina, the path to alternative rate recovery mechanisms began when the Public Service Commission of South Carolina (PSC) formally implemented the annual Purchased Gas Adjustment and Gas Purchasing Policy process for each of the two investor-owned natural gas utilities operating in South Carolina – DESC and Piedmont. These were approved by the PSC in 1987 and 1988.¹ Approval of the gWNA for both natural gas utilities followed in 1991.² Finally, the General Assembly ratified the RSA (S.C. Code Ann. § 58-5-400) in 2005.

Each of the three alternative rate mechanisms was designed to promote timelier rate recovery and investments in infrastructure, safety and reliability, and mitigate large swings in customer rates. According to the American Gas Association (AGA), South Carolina is one of twenty-three states that have implemented a gWNA mechanism.³ In addition, South Carolina is one of nine states to implement the RSA as an alternative to traditional rate proceedings.⁴ See Attachment B for the state-by-state overview of the implementation of PGA, gWNA and RSA as compiled by the AGA.

ORS performed a comparison of natural gas rates in the southeastern United States to provide a range of the current bill amounts experienced by a residential natural gas customer in the winter months.⁵

¹ DESC – PSC Order No. 1987-898 and Piedmont – Order No. 1988-294.

² DESC – PSC Order No. 1991-971 and Piedmont – Order No. 1991-1003.

³ American Gas Association, Innovative Rates, Non-Volumetric Rates, And Tracking Mechanisms: Current List, December 2016, p. 12

⁴ American Gas Association, Innovative Rates, Non-Volumetric Rates, And Tracking Mechanisms: Current List, December 2016, p. 10

⁵ Based on Standard Residential Service for Winter at 100 therms. Does not include fees or taxes.

Table 1

NG Utility	State	Basic Facilities Charge	Energy Charge	Rate per therm	Therms	Total Bill
DESC	SC	\$10.90	\$0	\$1.47401 ^a	100	\$158.30
Piedmont	SC	\$10.00	\$0	\$1.18647 ^b	100	\$128.65
PSNC	NC	\$10.00	\$0	\$1.06125 ^c	100	\$116.13
Piedmont	NC	\$10.00	\$0	\$1.51642 ^d	100	\$161.64
Piedmont	TN	\$17.45	\$0	\$1.11214 ^e	100	\$128.66
Florida Public Utilities	FL	\$11.00	\$0.49828	\$0.78000 ^f	100	\$138.83
SCANA Energy⁶	GA	\$41.52	\$0	\$0.79000 ^g	100	\$111.50

^a <https://www.dominionenergy.com/south-carolina/rates-and-tariffs>

^b <https://www.piedmontng.com/Home/Our-Rates>

^c <https://www.dominionenergy.com/north-carolina-gas/rates-and-tariffs>

^d <https://www.piedmontng.com/Home/Our-Rates>

^e <https://www.piedmontng.com/Home/Our-Rates>

^f <https://fpuc.com/naturalgas/rates-tariffs/>

^g <https://www.scanaenergy.com/rates-sign-up/residential-rates#fixed>

Purchased Gas Adjustment (PGA)

It is common practice that natural gas utilities typically include in base per therm rates the cost of gas (including demand and transportation costs) the utilities purchase for distribution to customers. The cost of gas is not marked-up and provides no return to the natural gas utility.

Base rates allow natural gas utilities to recover only the cost of the gas purchased for distribution to customers. Natural gas utilities request base rate adjustments through a general rate proceeding before the PSC. Due to the frequent changes in the cost of gas and the continuous need to purchase gas, the cost of gas component embedded in base rates changes during the time between general rate proceedings. To mitigate these frequent cost fluctuations, a PGA allows a natural gas utility to charge customers for cost

⁶ Georgia is open for competition in the natural gas market.

of gas changes on a more regular basis. The AGA indicates that every state in the United States has some alternative mechanism to adjust for fluctuations in gas cost.⁷

Both DESC and Piedmont have PSC-approved Gas Cost Recovery Mechanisms and an annual PGA proceeding. This allows the natural gas utilities to respond to cost fluctuations throughout the year. The PGA process requires the natural gas utility to file monthly reports with the PSC and ORS which detail gas costs for each month, the amount of gas cost recovered each month, and amounts deferred from month to month. ORS and other interested parties have an opportunity to review and challenge the utility's gas purchasing practices and cost of gas. The PSC holds annual hearings to ensure that natural gas utilities are prudently purchasing gas and implementing the gas cost recovery mechanism in compliance with the PSC order.

The PGA provides a balanced benefit to the natural gas utility and the customer by allowing timely adjustment of the cost of gas which mitigates large rate increases or decreases. The PGA process established by the PSC provides transparency to those adjustments through an annual review of the gas purchasing policies of the utilities and an opportunity for public participation during the annual hearing. ORS determined the PGA benefits natural gas customers in South Carolina and preserves continued investment in and maintenance of utility facilities so as to provide reliable and high-quality utility services.

Gas Weather Normalization Adjustment (gWNA)

The gWNA is a mechanism applied by many natural gas utilities to stabilize revenues and to reduce the impact of abnormal weather on customers' bills. Natural gas utilities recover most of the fixed cost to provide service through sales of natural gas which are sensitive to fluctuations in the weather. Because a significant portion of DESC's and Piedmont's fixed costs are not recovered through a base facilities charge, if the gWNA was not implemented, changes in weather could cause significant swings in customers' bills and trigger frequent general rate proceedings.

DESC's implementation of the gWNA is reflected as a charge applied to the customer's bill during warmer than normal billing cycles and a credit applied during colder than normal billing cycles. The gWNA mechanism used by DESC adjusts the per therm rate for deviations from normal weather during the winter heating season which extends from November 1 through April 30. ORS conducts an extensive review of DESC's gWNA mechanism calculations annually as part of DESC's RSA and prepared an extensive examination of the DESC gWNA at the request of the Aiken Legislative Delegation in 2017. The 2017 ORS Review is available on ORS's website.⁸

⁷ https://www.aga.org/sites/default/files/alternative_ratemaking.docx

⁸ <https://ors.sc.gov/sites/default/files/Documents/Regulatory/electricNaturalGas/naturalGas/FINAL%20WNA%20Report%209-20-17.pdf>

Piedmont's implementation of the gWNA is reflected as a tracker within the PGA mechanism to determine if an over/under recovery adjustment is needed when adjusting rates. ORS conducts an extensive review of Piedmont's gWNA mechanism calculations annually as part of Piedmont's PGA proceeding. The gWNA mechanism used by Piedmont adjusts the over/under recovery of purchased gas for deviations from normal weather during the winter heating season which extends from November 1 through March 31.

The gWNA reduces customers' bills in months with colder-than-normal temperatures (when customers' gas usage tends to be higher) and increases bills in months with warmer-than-normal temperatures (when customers' gas usage tends to be lower). As a result, the gWNA mitigates the impact of abnormal weather on customers' bills and stabilizes the impact of abnormal weather on utility revenue. ORS concludes the gWNA benefits natural gas customers in South Carolina and preserves continued investment in and maintenance of utility facilities so as to provide reliable and high-quality utility services.

Rate Stabilization Act (RSA)

Legislative Background

The preamble, included by the General Assembly when it ratified the RSA in 2005, concisely outlined the public benefits to South Carolina associated with the implementation of an alternative rate mechanism. These important benefits included:

- Increasing the stability and predictability of rates charged by natural gas distribution utilities in South Carolina;
- Providing the state's natural gas consumers and utilities with an efficient rate setting mechanism that will allow for more periodic yet generally smaller rate adjustments;
- Encouraging investment in new, updated, and expanded natural gas infrastructure to encourage additional economic development in South Carolina; and,
- Reducing the costs of proceedings to adjust natural gas rates and reducing costs for consumers and the public.

Statutory Requirements and Commission Procedure

The RSA is an alternative rate mechanism available to any investor-owned natural gas utility. Both Piedmont and DESC have elected to have their natural gas rates set on an annual basis using the provisions of the RSA. The RSA provides a structure for on-going monitoring of the utility's financial and operating experience and earnings balanced with safeguards to allow annual audits and opportunities for interested stakeholders to comment and challenge utility rate adjustments.

To summarize, the RSA requires the following annual actions:

1. The natural gas utility to file quarterly Monitoring Reports with the PSC for each 12-month period ending on March 31, June 30, September 30, and December 31 of each year.⁹
2. The Monitoring Reports contain an extensive breakdown of the natural gas utility's financial and operating experience, rate base, capital structure, cost of capital/debt, accounting/pro-forma adjustments and earned return on equity.
3. An opportunity for interested parties to file comments on the Monitoring Report submitted by the utility by July 15 for the quarter ending March 31.
4. An audit by ORS of the Monitoring Report submitted for the quarter ending March 31. The results of ORS's audit are published by September 1 of each year.
5. An opportunity for interested parties to comment on ORS's audit report by September 15 of each year.
6. An Order from the PSC by no later than October 15 setting out any changes to the rates requested by the utility.
7. The rates as ordered by the PSC become effective in the first billing cycle of November.
8. An opportunity for any aggrieved party to request the PSC review the order setting annual rates under the RSA and a right to be heard on the issues.

The RSA requires the PSC to set a financial baseline metric to include the rates, charges, revenues, expenses, capital structure, returns, and other matters approved by the PSC in the utility's most recent general rate proceeding. If the utility's last general rate proceeding occurred more than five years before the election to operate under the RSA, the utility must complete a general rate proceeding to establish the financial baseline metric to be used in the RSA.

The financial baseline metric specifies the method for the utility to record and report its cost of service, revenue allocation, accounting and pro-forma adjustments and range of return on equity. Once the PSC establishes a financial baseline metric, the electing natural gas utility is required to adhere to the financial baseline metric to remain in compliance with the RSA. The ratemaking treatment for cost of service, revenue allocation, accounting/pro-forma adjustments and return on equity by the PSC is not adjusted until the utility's next general rate proceeding.

Piedmont's Application of the RSA

On April 26, 2005, Piedmont elected to have rates set in accordance with the provisions of the RSA.¹⁰ On September 28, 2005, the PSC issued Order No. 2005-491 to establish a

⁹ The March 31 Monitoring Report must also contain detailed revenue adjustments and tariffs to reflect a change in rates as prescribed by S.C. Code Ann. § 58-5-440.

¹⁰ PSC Docket No. 2005-125-G

financial baseline metric for Piedmont and address the procedure for Piedmont to implement the annual RSA.

The financial baseline metric established by the PSC for Piedmont utilized the results of the last general rate case approved in 2002.¹¹ In 2002, the PSC approved a return on equity of 12.6%. Under the RSA procedures approved by the PSC in 2005, the range of return on equity for Piedmont was established as 12.1% - 13.1% with a 12.6% midpoint. During the audit and review period, if the natural gas utility's return on equity is above or below the range of the return on equity set by the PSC, the utility is required to adjust natural gas rates to bring the utility's annual revenue requirement to a level sufficient to produce a return on equity in the middle of the range. For Piedmont, the middle of the approved range of return on equity was previously 12.6%.

Historically, the PSC has approved a rate adjustment in the RSA for Piedmont that reduced the return on equity to between 9.8 and 10.2% instead of 12.6%.

The following table demonstrates the requested and approved rate changes for Piedmont since 2016:

Table 2

Docket No.	Order No.	Amount Requested	Proposed Settlement Revenue	PSC Approved Revenue	Approved Return on Equity	Rates Effective
2016-7-G	2016-705	\$14,910,332	\$7,655,078	\$7,655,078	10.20%	11/1/2016
2017-7-G	2017-624	\$17,552,834	\$5,829,357	\$5,829,357	10.20%	11/1/2017
2018-7-G	2018-679	(\$5,686,837)	(\$13,855,623)	(\$13,855,623)	10.20%	11/1/2018
2019-7-G	2019-730	\$16,964,048	\$10,127,266	\$10,127,266	9.90%	11/1/2019
2020-7-G	2020-702(A)	\$12,446,419	\$4,100,818	\$4,100,818	9.80%	11/1/2020
2021-7-G	2021-664	\$20,605,507	\$10,765,000	\$10,765,000	9.80%	11/1/2021

¹¹ PSC Docket No. 2002-63-G; Order No. 2002-761

DESC's Application of the RSA

On April 26, 2005, DESC filed a general rate proceeding for its natural gas operations and a request electing to set future natural gas rates in accordance with the RSA.¹² On October 31, 2005, the PSC approved a rate change and established the financial baseline metric for DESC to implement the annual RSA for future rate adjustments.¹³ Under the RSA procedures approved by the PSC, the range of return on equity for DESC was established as 9.75% - 10.75% with a 10.25% midpoint. During the audit and review period, if the natural gas utility's return on equity is above or below the range of the return on equity set by the PSC, the utility is required to adjust natural gas rates to bring the utility's annual revenue requirement to a level sufficient to produce a return on equity in the middle of the range. Commission Order No. 2020-701 approved a Settlement Agreement between DESC and ORS resulting in rates being calculated based on a return on equity of 9.9%.

The following table demonstrates the requested and approved rate changes for DESC since 2016:

Table 3

Docket No.	Order No.	Amount Requested	ORS Calculated Revenue	PSC Approved Revenue	Approved Return on Equity	Rates Effective
2016-6-G	2016-704	\$4,386,695	\$4,086,147	\$4,086,147	10.25%	11/1/2016
2017-6-G	2017-623	\$9,022,098	\$8,633,538	\$8,633,538	10.25%	11/1/2017
2018-6-G	2018-678	(\$18,737,191)	(\$19,716,936)	(\$19,716,936)	10.25%	11/1/2018
2019-6-G	2019-729	\$7,106,649	\$6,273,054	\$6,273,054	10.25%	11/1/2019
2020-6-G	2020-701	\$8,630,682	\$7,186,187	\$6,326,995	9.90%	11/1/2020
2021-6-G	2021-663(A)	\$8,773,989	\$6,992,923	\$6,992,923	10.25%	11/1/2021

¹² PSC Docket No. 2005-113-G

¹³ PSC Order No. 2005-619

Benefits of the RSA

In general, the RSA primarily benefits the natural gas utility by decreasing regulatory lag, facilitating timely recovery on new infrastructure investments and decreasing revenue uncertainty. Natural gas customers benefit from the RSA as it protects against extreme rate volatility and reduces the frequency and duration of rate proceedings which translates into lower costs for the customer.

As evidenced by the natural gas rates from 2016 to 2021, customers benefit by a timely rate adjustment versus the traditional rate setting practice that allows the natural gas utility to select the time interval for a rate adjustment. Overall, the RSA provides greater transparency of the financial and operating experience of the utility. It is important to note that no empirical study has been conducted in South Carolina to quantify the benefits of the RSA to the utility and natural gas customer.

Disadvantages of the RSA

Under the procedures approved by the PSC, the natural gas utilities and ORS coordinate to achieve the ambitious deadlines prescribed by the RSA. The timeline for ORS's audit review begins on June 15th of each year when the utilities submit their respective March 31st Monitoring Report. ORS has approximately seventy-five days in which to conduct an audit and file comments related to the Monitoring Report. A traditional rate case proceeding (non-RSA) for electric and water/wastewater utilities provides approximately one hundred twenty days for audit review and testimony preparation. ORS performs a full cost of capital analysis during rate case proceedings, but the return on equity is not specifically evaluated in the context of current market conditions for RSAs. This time constraint is reasonably mitigated by utility preparation of detailed quarterly Monitoring Reports, on-going review by ORS, and utility cooperation.

Another drawback of the RSA is that it does not contain a provision to "reset" the financial baseline metric for the natural gas utility unless the utility requests its rates be adjusted in a general rate proceeding. As a result, South Carolina's two natural gas utilities – DESC and Piedmont – are entitled to the returns on equity authorized in their last general rate cases in 2002 and 2005, respectively, for purposes of the RSA. In many of the years since each utility opted into the RSA, Piedmont has entered into a settlement agreement with ORS for returns on equity around 10.2%, a 240 basis point adjustment.¹⁴ In the 2019, 2020, and 2021 RSAs, ORS and Piedmont agreed to settled returns on equity just below 10%.¹⁵ The RSA does contain a provision that allows the PSC to issue, or an interested party to request issuance of, a rule to show cause as to why a full rate proceeding should

¹⁴ DESC has typically maintained an authorized ROE of 10.25% in the annual RSA proceedings. In 2020, ORS and DESC entered into a settlement agreement for a 9.9% ROE.

¹⁵ For Piedmont, the settled ROEs for 2019, 2020, and 2021 were 9.9%, 9.8%, and 9.8%, respectively.

not be initiated.¹⁶ No rule to show cause has been initiated since the election of the RSA by Piedmont or DESC. On September 12, 2019, in Docket No. 2019-7-G, Piedmont and ORS entered into a Settlement Agreement approving quarterly monitoring reports and rates and charges for gas distribution services. On October 15, 2019 the PSC issued Order No. 2019-730 which approved the Settlement Agreement. Based on the approved Settlement Agreement, Piedmont will file a general rate case proceeding with the PSC no later than April 1, 2022. On September 15, 2020, in Docket No. 2020-6-G, DESC and ORS entered into a Settlement Agreement approving quarterly monthly reports and adjustments to rates and charges for gas distribution services. On October 14, 2020 the PSC issued Order No. 2020-701 which approved the Settlement Agreement. As part of the Settlement Agreement, DESC will file a retail natural gas general rate case proceeding with the PSC no later than April 1, 2023. Absent Piedmont and DESC entering into the aforementioned Settlement Agreements, the Companies' could elect to have to have rates set in accordance with the provisions of the RSA indefinitely.

Arguably the most impactful component of cost of capital analysis is the determination of a just and reasonable return on equity for the subject utility. Returns on equity, which are determined based on the utility's cost of common equity, are a larger percentage and thus a greater cost than the cost of debt given the additional risks to investors for supplying equity capital. The most widely-accepted methods to estimate a utility's cost of equity rely on current market conditions, such Treasury bond and dividend yields, for utility companies of similar risk. Such financial metrics are variable in nature and fluctuate frequently depending on economic conditions and other factors. Given the fluidity of these crucial elements, occasional re-evaluation of utility returns on equity is imperative to ensure that the cost of capital is reasonable at any given time.

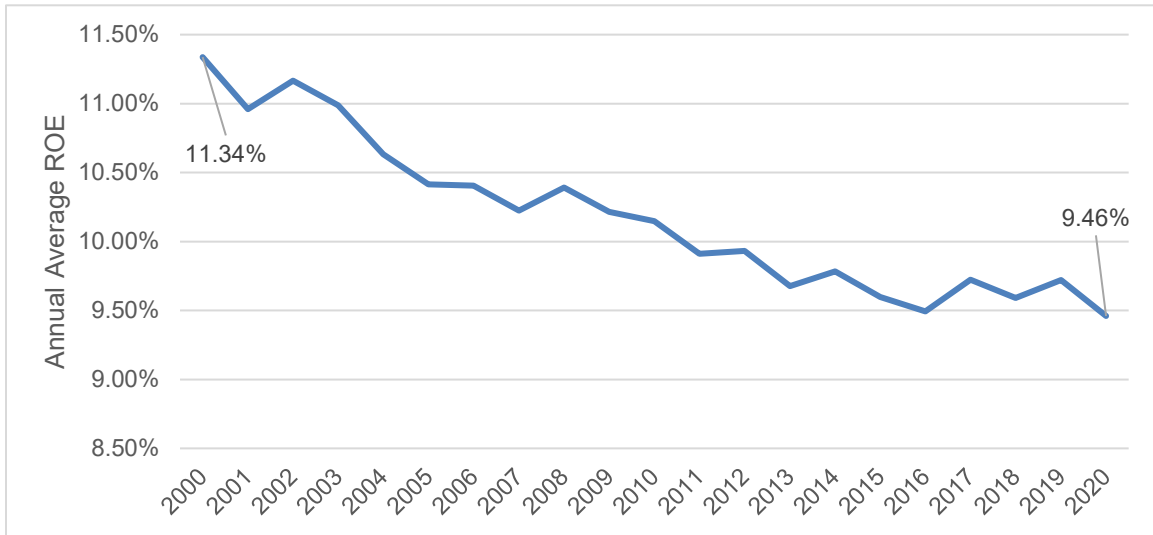
It would be beneficial to natural gas customers for the financial baseline metrics of gas utilities to be reviewed and adjusted no more than once every five years. The financial baseline metric established for Piedmont in 2005 relies upon a snapshot of the utility's financial and operating experience in 2001. Likewise, the financial baseline metric established for DESC was based on the financial and operating experience of the utility in 2004. While the RSA annually examines and adjusts for the changes in revenue and expenses, circumstances that impact the cost of service, revenue allocation, and return on equity are not adjusted in the RSA. For illustration, the average return on equity authorized for gas utilities in the United States in 2001 was 10.96%. By the end of 2020, the average return on equity had fallen 150 basis points to 9.46%. By comparison, Piedmont's 12.6% return on equity authorized in its 2002 rate case more closely matches the average returns on equity authorized for gas utilities of the early 1990s, roughly one

¹⁶ S.C. Code Ann. § 58-5-470

decade earlier. The chart below shows the annual average return on equity trends for natural gas utilities from 2000 to 2020.¹⁷

Annual Average Authorized ROEs for Natural Gas Utilities 2000 – 2020

Figure 1



¹⁷ Public's Exhibit No.5 – Testimony of Indiana Office of Utility Consumer Counselor's Witness Leja D. Courter https://iurc.portal.in.gov/entity/sharepointdocumentlocation/fc46e1a0-f072-eb11-a812-001dd801d07f/bb9c6bba-fd52-45ad-8e64-a444aef13c39?file=45447_OUCC%20Testimony%20of%20Leja%20D%20Courter%20Exhibit%20No%205.pdf

ORS RECOMMENDATIONS

ORS submits several recommendations which could improve the RSA. These recommendations include:

- Updated Cost of Service;
- Mechanisms for incorporating changes in Rate Design; and,
- Updated Return on Equity.

Cost of Service

As discussed earlier, the cost of service is a component of the financial baseline metric used in the RSA. To determine the cost of service, a utility performs a Cost of Service Study (COSS) which allocates – or directly assigns – the operating revenues, operating expenses, and rate base items to each customer class, which are then used to determine the rate of return for each class. Specifically, the COSS identifies the cost responsibility for expenses and rate base items that should be allocated to the customer class(es) causing the cost to be incurred. This allocation methodology is referred to as “cost causation.”

The major components utilized in the development of a COSS are functionalization, classification, and allocation. Functionalization is the process of categorizing investments and operating costs according to their function which is either, production, gathering, transmission, or distribution. Classification further groups these costs based on the service being provided and related causation of the costs, namely demand—related, commodity-related or customer-related. These costs are then allocated based upon cost causation principles.

The RSA limits the ability of the utility, ORS and other interested parties’ to review or recommend changes to the cost of service beyond those financial baseline metrics approved by the PSC in the last general rate proceeding. Over time and as the utility makes new investments, the cost of service may change, further supporting that the COSS should be updated on a more regular basis than the RSA currently allows. A more frequent review of the COSS for natural gas utilities can provide greater transparency into how costs are assigned and recovered.

Rate Design

The RSA does not allow for changes to rate design because of the following language contained in S.C. Code Ann. § 58-5-440:

The proposed rate changes, filed by the utility, shall conform as nearly as practicable with the revenue allocation principles contained in the most recent rate order.

This language restricts the ability of the utility, ORS, and other interested parties' ability to recommend changes to rate design and revenue allocation. The restrictive language also limits the PSC's ability to modify rate design and revenue allocation. Rate changes, including the addition or deletion of customer classes, should be periodically reviewed by the PSC to ensure utility rate design meets the policy objectives of the state of South Carolina.

Return on Equity

In the RSA, S.C. Code Ann. § 58-5-420(1) requires the PSC set a specific range of return on equity. The RSA does not allow further adjustment to the range of return on equity after the natural gas utility elects to set rates in accordance with the RSA. Only through **voluntary** adjustment by the utility can the return on equity be set below the PSC approved range. This restriction provides great revenue certainty to the utility. However, the customer may be subjected to rates higher than necessary due to an inflexible range of return on equity set under different market conditions. This is evident based on the trends as seen above in Figure 1.

ORS recommends consideration be given to limit a natural gas utility's election under the RSA to a maximum term of five years. Six months prior to the expiration of the RSA term, the utility shall participate in a general rate proceeding in order to reset the financial baseline metric including cost of service, revenue allocation, rate design and return on equity contained in the RSA election. Reviewing the financial baseline metric may benefit both the customer and the utility.

OVERVIEW OF INNOVATIVE MECHANISMS

Non-Volumetric Rates

Straight-Fixed Variable (SFV) Rate designs – currently utilized in nine states (South Carolina is not one) – are another way that states have worked to address this alternative rate mechanisms. These structures eliminate all variable distribution charges and enable cost recovery through a fixed delivery services charge or an increase in the fixed customer charge alone. Under this approach, it is assumed that a utility's revenues would be unaffected by changes in sales levels if all its overhead or fixed costs are recovered in the fixed portion of customers' bills.

Decoupling Mechanisms

A decoupling mechanism is a rate adjustment mechanism that separates (decouples) a gas utility's fixed recovery from the amount of gas it sells. Decoupling permits utilities to collect revenues based on the regulatory-determined revenue requirement, most often on a per customer basis. On a periodic basis, revenues are "trued-up" to the predetermined revenue requirement using an automatic rate adjustment.

Bad Debt Cost Recovery

A typical bad debt mechanism allows for the recovery of costs that are usually outside of the control of the utility, such as taxes and the cost of gas. These tracking mechanisms are implemented without the need for a rate case and ensure that the utility is made whole. Both higher-than-forecast and lower-than-forecast bad debt expenses are tracked in a special account and subsequently recovered in the rates of all customers.

Pension and OPEB Cost Recovery

As pension expenses can fluctuate annually, utilities do not always recover costs that they actually incur and record in their accounts. Under-recovered pension expenses can lead to additional recording of pension liabilities and a loss of income. Several rate design options are available to assist in addressing this issue, including cost tracking mechanisms and rate stabilization mechanisms – which recover costs in the time period in which they are incurred – and deferral accounts, which delay the recovery of expenses, and usually carrying costs, until a future period.

Natural Gas Energy Efficiency Programs

For utilities without decoupling, SFV rate design or a rate stabilization mechanism in place, other states have approved methods for recovering the costs associated with the deployment of energy efficiency measures. This is generally accomplished through the establishment of an automatic rate adjustment mechanism that is used to annually reconcile program costs outside of a general rate case.

Piedmont has had an energy efficiency program in place since May 27, 2010 via Docket No. 2009-411-G, *Order Approving Energy Efficiency Programs*. As part of a Settlement Agreement, Piedmont submits an annual report by June 15th in conjunction with the Company's RSA process, a request for the recovery of Piedmont's energy efficiency program costs for the twelve month period ending every March 31st. There are eligibility requirements.¹⁸

DESC submitted an application for an energy efficiency program on November 23, 2021 via Docket No. 2021-361-G. As of the date of this review, it is currently under consideration.

¹⁸ <https://gasadvantage.piedmontng.com/EnergyEfficiency/SCEligibility/>

STATE BY STATE COMPARISON

ORS Data

ORS compiled a listing of states that have implemented alternative rate mechanisms. This listing was last updated on November 30, 2021, and contains state-by-state data on innovative rate mechanism type and recent published return on equity for natural gas utilities. ORS data is included as Attachment A.

American Gas Association Data

The most current data available on alternative rate mechanisms is contained in a slide deck prepared by the AGA. Even though the material is dated December 2016, the data has not materially changed from its original publication. Through various communications with AGA it is the understanding of ORS that a fully comprehensive update is underway and will be released by the AGA sometime in 2022. The AGA data is included as Attachment B.

ATTACHMENT A

Attachment A
State-by-State Comparison of Alternative Rate Mechanism
Last Update November 30, 2021

State	RSA / Decoupling	SFV	gWNA	PGA	Return on Equity
Alabama - AL	X		X		10.80%
Alaska - AK	X				11.88%
Arizona - AZ	X		X	X	9.50%
Arkansas - AR	X		X		9.47%
California - CA	X			X	10.40%
Colorado - CO			X		9.50%
Connecticut - CT	X				9.25%
Delaware - DE		X	X		9.68%
Florida - FL		X		X	10.05%
Georgia - GA	X	X	X		10.25%
Hawaii - HI	X				Unpublished
Idaho - ID	X		X		9.50%
Illinois - IL			X	X	9.80%
Indiana - IN	X		X		10.20%
Iowa - IA					9.56%
Kansas - KS			X		9.80%
Kentucky - KY	X		X		9.59%
Louisiana - LA	X		X		9.35%
Maine - ME	X				9.50%
Maryland - MD	X		X		9.65%
Massachusetts - MA	X				9.60%
Michigan - MI	X		X		10.30%
Minnesota - MN	X				9.49%
Mississippi - MS	X		X		Unpublished
Missouri - MO		X	X		9.70%
Montana - MT					9.55%
Nebraska - NE		X	X		Unpublished
Nevada - NV	X				Unpublished
New Hampshire - NH	X			X	9.30%
New Jersey - NJ	X		X		9.75%
New Mexico - NM					Unpublished
New York - NY	X		X		9.00%
North Carolina - NC	X				9.60%
North Dakota - ND	X	X	X		9.50%
Ohio - OH		X			9.84%
Oklahoma - OK	X	X	X		9.50%
Oregon - OR	X		X		9.40%
Pennsylvania - PA	Pending		X		9.80%
Rhode Island - RI	X		X		9.28%
South Carolina - SC	X		X	X	10.03%
South Dakota - SD			X		Unpublished
Tennessee - TN	X		X		9.80%
Texas - TX	X	X	X		9.65%
Utah - UT	X		X		9.85%

Attachment A
State-by-State Comparison of Alternative Rate Mechanism
Last Update November 30, 2021

State	RSA / Decoupling	SFV	gWNA	PGA	Return on Equity
Vermont - VT				X	Unpublished
Virginia - VA	X		X		9.38%
Washington - WA	X		X	X	9.50%
West Virginia - WV			X	X	9.65%
Wisconsin - WI				X	10.00%
Wyoming - WY	X				9.90%

ATTACHMENT B

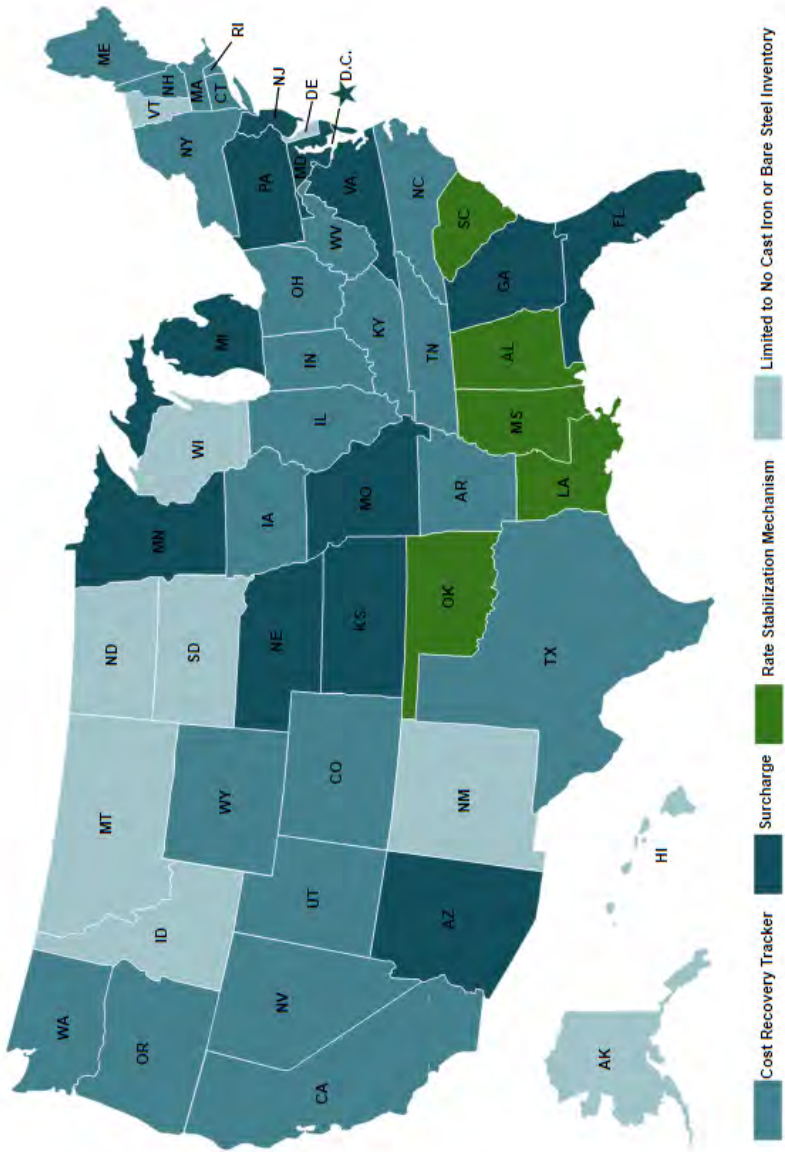


Innovative Rates, Non-Volumetric Rates, and Tracking Mechanisms: Current List

As of December 2016



Attachment B: American Gas Association Innovative Rates, Non-Volumetric Rates, and Tracking Mechanisms: Current List



Utilities with Full Infrastructure Cost Recovery Mechanisms

1.	AL – Alabama Gas Company	66.	OK – CenterPoint Energy
2.	AR – Mobile Gas Service	67.	OR – Avista Corp.
3.	AR – Arkansas Oklahoma Gas	68.	OR – NW Natural
4.	AR -- SourceGas	69.	PA – Columbia Gas of Pennsylvania
5.	AR – CenterPoint Energy	70.	PA – Equitable Gas
6.	CA – San Diego Gas and Electric	71.	PA – Peoples Gas Company
7.	CA – Southern California Gas	72.	PA – Peoples TWP
8.	CA – Southwest Gas	73.	PA – UGI Central Penn Gas
9.	CO – Public Service Co. of Colorado	74.	PA – UGI Penn Natural Gas
10.	CO – Atmos Energy	75.	PA – PECO
11.	CO -- SourceGas	76.	PA – Philadelphia Gas Works
12.	CT – Connecticut Natural Gas	77.	RI – National Grid Narragansett Gas
13.	DC – Washington Gas	78.	SC – Piedmont Natural Gas
14.	FL – Chesapeake Utilities	79.	SC – South Carolina Electric and Gas
15.	FL – Florida Public Utilities Company	80.	TN – Atmos Energy
16.	FL – Florida City Gas	81.	TN – Piedmont Natural Gas
17.	FL – TECO Peoples Gas	82.	TX – Atmos Energy
18.	GA – Atlanta Gas Light	83.	TX – CenterPoint Energy
19.	GA – Liberty Utilities	84.	TX – Texas Gas Service
20.	IL – Ameren Illinois	85.	UT – Questar Gas
21.	IL – NICOR Gas	86.	VA – Atmos Energy
22.	IL – Peoples Gas	87.	VA – Columbia Gas of Virginia
23.	IN – Vectren North Indiana Gas	88.	VA – Virginia Natural Gas
24.	IN – Vectren South SIGECO	89.	VA – Washington Gas
25.	IN – NIPSCO	90.	WA – Avista Corporation
26.	KS – Atmos Energy	91.	WA – Puget Sound Energy, Inc.
27.	KS – Black Hills	92.	WA – Cascade Natural Gas Company
28.	KS – Kansas Gas Service	93.	WA – Northwest Natural Gas Company
29.	KY – Atmos Energy	94.	WV – Mountaineer Gas Company
30.	KY – Columbia Gas of Kentucky	95.	WV – Dominion Hope
31.	KY – Delta Natural Gas	96.	WY – Black Hills
32.	KY – Duke Energy Kentucky		
33.	LA – CenterPoint Energy		
34.	LA – Entergy Gulf States		
35.	MA – Berkshire Gas		

Limited and Pending Infrastructure Mechanisms

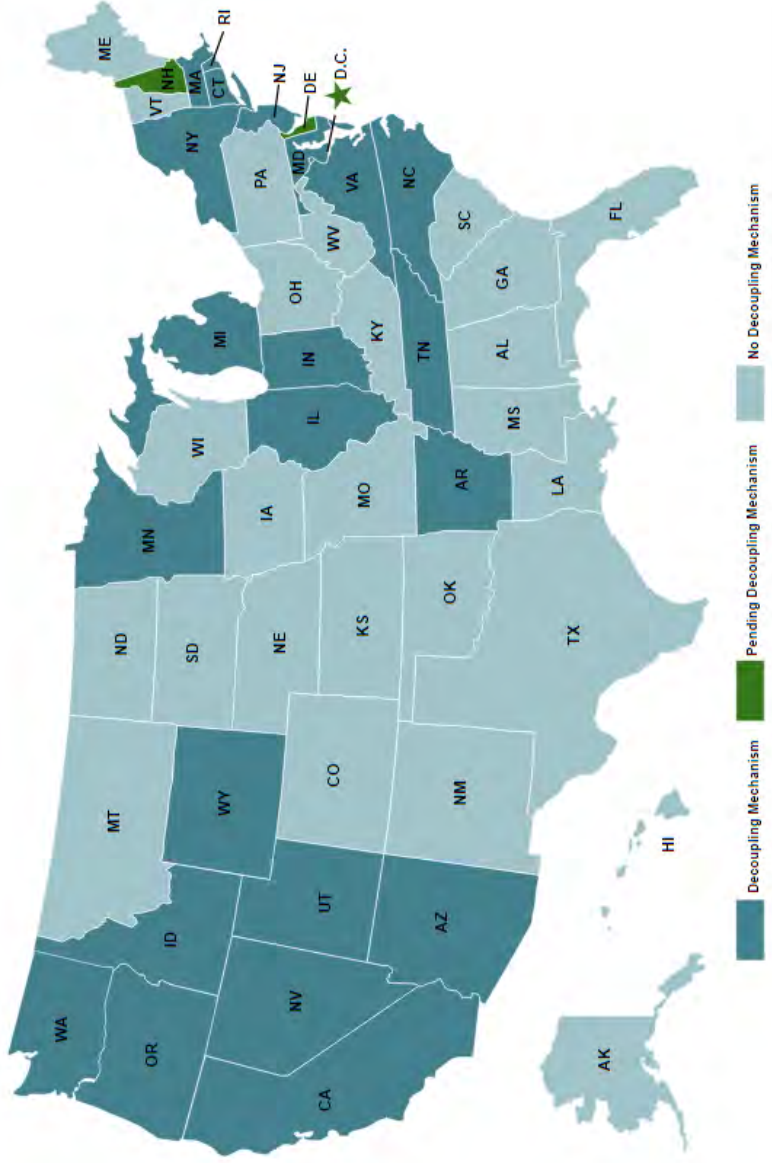
LIMITED – 3 States

1. AZ – Southwest Gas
2. ME – Northern Utilities
3. NY – Consolidated Edison
4. NY – Conring Natural Gas
5. NY – National Grid NYC
6. NY – National Grid Long Island
7. NY – National Grid Niagara Mohawk
8. NY – Orange and Rockland

GENERIC RULINGS OR LEGISLATION – 3 States

1. Iowa – All utilities may apply
2. Nebraska – All utilities may apply
3. West Virginia – All utilities may apply

Attachment B: American Gas Association Innovative Rates, Non-Volumetric Rates, and Tracking Mechanisms: Current List



Utilities with Approved Decoupling Mechanisms

1. AR – Arkansas Oklahoma Gas
2. AR – SourceGas
3. AR – CenterPoint Energy
4. AZ – Southwest Gas
5. AZ – UNS Gas
6. CA – Pacific Gas and Electric
7. CA – San Diego Gas and Electric
8. CA – Southern California 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 – Citizens Energy Group
17. IN – Vectren North 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 and Electric
25. MD – Columbia Gas of Maryland
26. MD – Washington Gas
27. MI – Consumers Energy
28. MI – DTE
29. MN – CenterPoint Energy

Pending Mechanisms

1. DC – Washington Gas
2. DE – Delmarva Power and Light
3. ID – Intermountain Gas
4. MI – Consumers Energy
5. NH – Passed Legislation
6. VA – Washington Gas

Utilities with Flat Monthly Fee Rate Designs (SFV)

Approved SFV

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

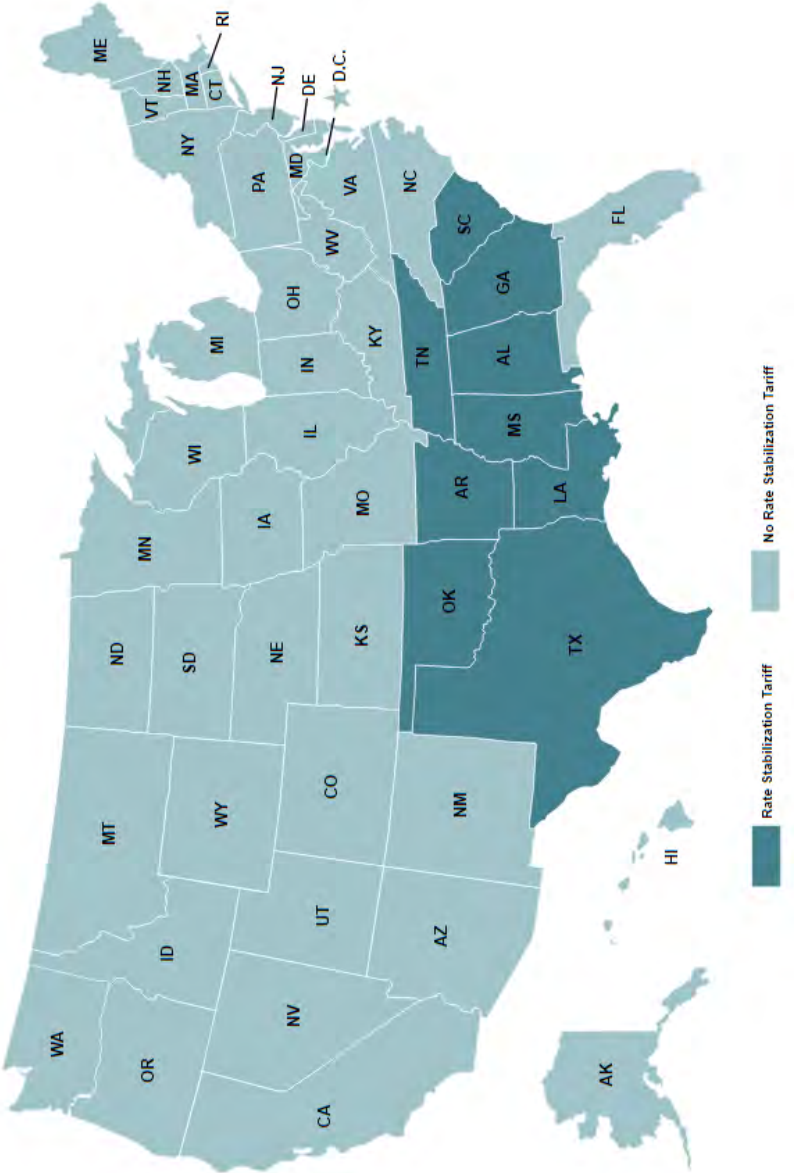
Similar to SFV

1. 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
3. IL – Nicor Gas – Flat fee plus a small variable charge
4. MO – Ameren – Modified rate blocks for Residential Service customers
5. MO – Liberty Utilities – Flat fee plus a small variable charge
6. MO – Laclede Gas – Modified rate blocks
7. NE – Black Hills – Declining rate blocks
8. NE – SourceGas – Modified rate blocks
9. OK – Oklahoma Natural Gas – Two-tier plan – Offers customers a choice
10. TX – Texas Gas Service – Flat fee up to 200 ccf/month

Pending

1. 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
4. GA – Liberty Utilities
5. LA – Atmos Energy
6. LA – CenterPoint Energy
7. LA – Entergy
8. MS – Atmos Energy
9. 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

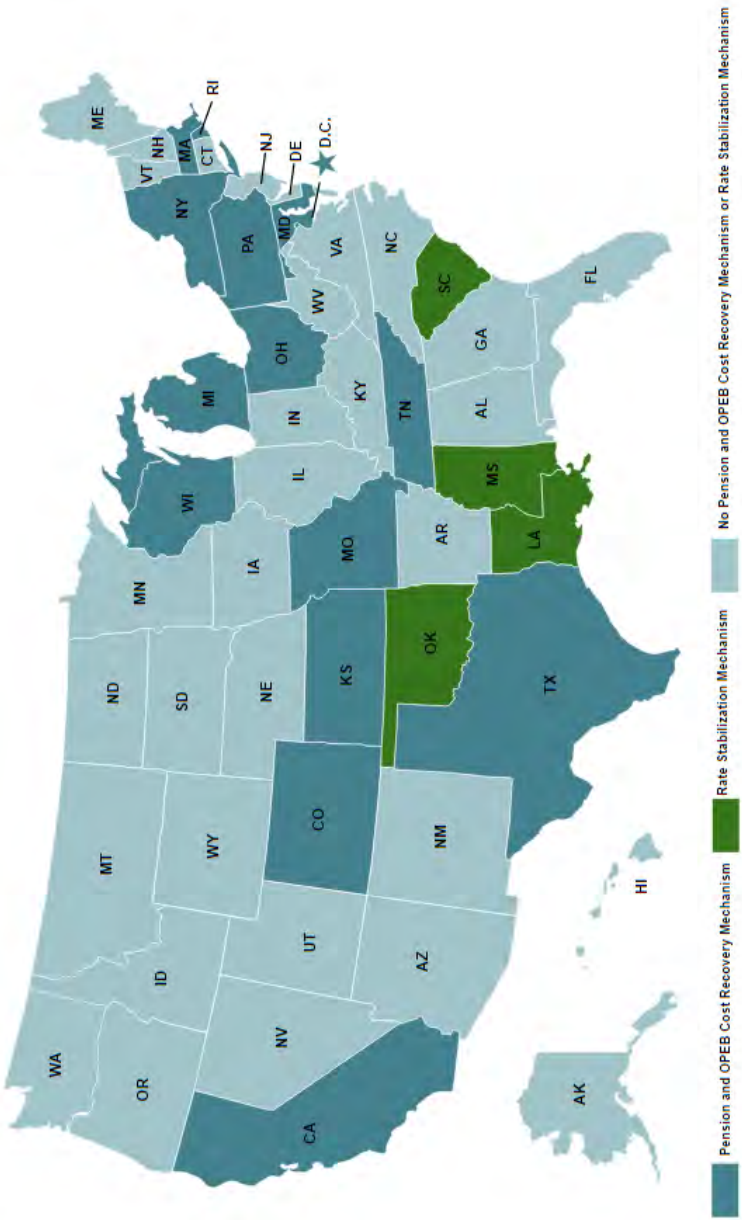
Utilities with Approved Weather Normalization Adjustments

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

Utilities with Bad Debt Cost Recovery

- | | | | |
|-----|--------------------------------------|-----|-------------------------------|
| 31. | NE – Black Hills | 61. | VA – Atmos Energy |
| 32. | NE – SourceGas | 62. | VA – Columbia Gas of Virginia |
| 33. | NH – Liberty Utilities | 63. | VA – Virginia Natural Gas |
| 34. | NH – Northern Utilities | 64. | WI – Wisconsin Gas |
| 35. | NV – Southwest Gas | | |
| 36. | NY – Central Hudson Gas and Electric | | |
| 37. | NY – Consolidated Edison | | |
| 38. | NY – National Fuel Gas Distribution | | |
| 39. | NY – National Grid Long Island | | |
| 40. | NY – National Grid Niagara Mohawk | | |
| 41. | NY – National Grid NYC | | |
| 42. | NY – New York State Electric and Gas | | |
| 43. | NY – Orange and Rockland Utilities | | |
| 44. | OH – Columbia Gas of Ohio | | |
| 45. | OH – Dominion East Ohio | | |
| 46. | OH – Eastern Natural Gas | | |
| 47. | OH – Pike Natural Gas | | |
| 48. | OH – Vectren Energy Delivery of Ohio | | |
| 49. | OK – CenterPoint Energy | | |
| 50. | OK – Oklahoma Natural Gas | | |
| 51. | RI – National Grid | | |
| 52. | SC – Piedmont Natural Gas | | |
| 53. | SC – South Carolina Electric and Gas | | |
| 54. | TN – Atmos Energy | | |
| 55. | TN – Chattanooga Gas | | |
| 56. | TN – Piedmont Natural Gas | | |
| 57. | TX – Atmos Energy | | |
| 58. | TX – Texas Gas Service | | |
| 59. | UT – Questar Gas | | |
| 60. | VA – Washington Gas | | |

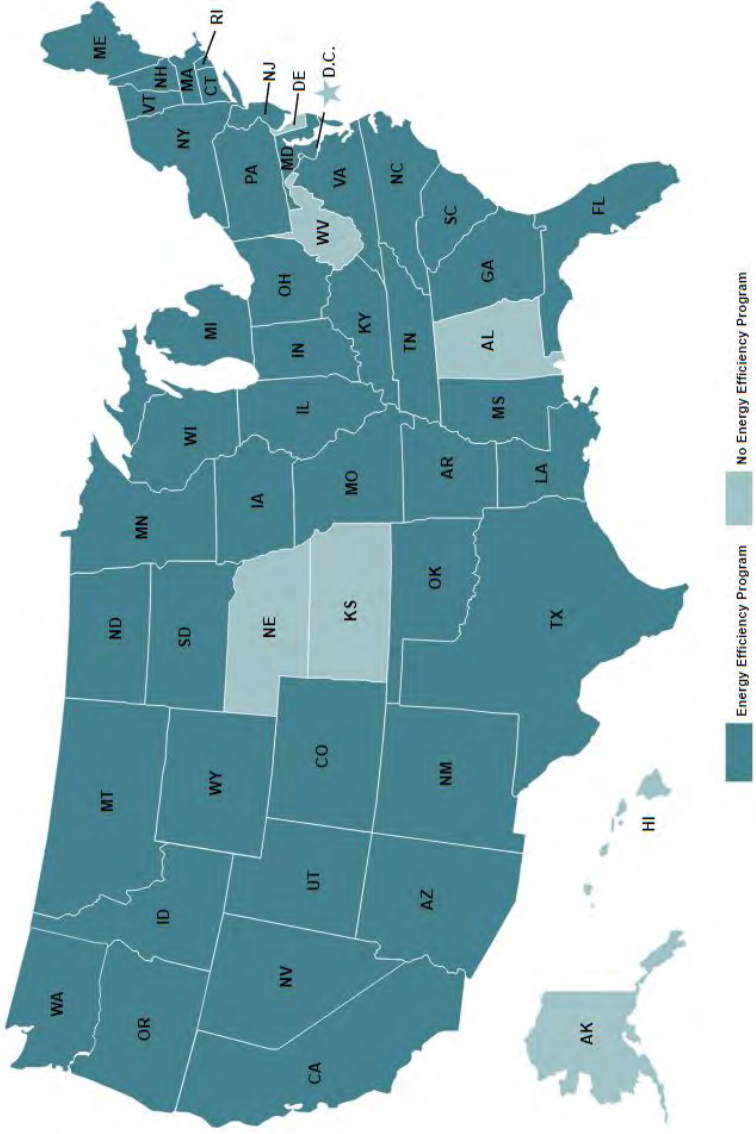
Current Status of Pension and OPEB Cost Recovery



Utilities with Pension and OPEB Cost Recovery

- 25. OH – Columbia Gas of Ohio
- 26. OK – CenterPoint Energy
- 27. OK – Oklahoma Natural Gas
- 28. 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
- 35. WI – Wisconsin Power and Light

Current Status of Natural Gas Energy Efficiency Programs



Utilities with Natural Gas Energy Efficiency Programs

31.	IL – Nicor Gas	61.	MO – Empire Natural Gas
32.	IL – North Shore Gas	62.	MO – Laclede Gas
33.	IL – Peoples Gas	63.	MO – Missouri Gas Energy
34.	KY – Atmos Energy	64.	MS – Atmos Energy
35.	KY – Columbia Gas of Kentucky	65.	MS – CenterPoint Energy
36.	KY – Delta Natural Gas	66.	MT – Montana-Dakota Utilities
37.	KY – Duke Energy Kentucky	67.	NC – Piedmont Natural Gas
38.	KY – Louisville Gas and Electric	68.	NC – Public Service Co. of NC
39.	LA – Atmos Energy	69.	ND – Montana-Dakota Utilities
40.	LA – CenterPoint Energy	70.	NH – Liberty Utilities
41.	MA – Columbia Gas of Massachusetts	71.	NH – Northern Utilities
42.	MA – Berkshire Gas	72.	NJ – Elizabethtown Gas
43.	MA – Fitchburg Gas and Electric Light	73.	NJ – New Jersey Natural Gas
44.	MA – Liberty Utilities	74.	NJ – Public Service Electric and Gas
45.	MA – National Grid Massachusetts	75.	NJ – South Jersey Gas
46.	MA – NSTAR Gas and Electric	76.	NM – New Mexico Gas
47.	MD – Baltimore Gas and Electric	77.	NV – NV Energy
48.	MD – Columbia Gas of Maryland	78.	NV – Southwest Gas
49.	MD – Washington Gas	79.	NY – Central Hudson Gas and Electric
50.	ME – Northern Utilities	80.	NY – Consolidated Edison
51.	MI – Consumers Energy	81.	NY – National Fuel Gas
52.	MI – DTE	82.	NY – National Grid NY
53.	MI – Michigan Gas Utilities	83.	NY – National Grid Long Island
54.	MN – CenterPoint Energy	84.	NY – National Grid Niagara Mohawk
55.	MN – Great Plains Natural Gas	85.	NY – Orange and Rockland Utilities
56.	MN – Interstate Power and Light	86.	NY – St. Lawrence Gas
57.	MN – Minnesota Energy Resources	87.	OH – Columbia Gas of Ohio
58.	MN – Xcel Energy	88.	OH – Dominion East Ohio
59.	MO – Ameren	89.	OH – Duke Energy
60.	MO – Liberty Utilities	90.	OH – Vectren Energy Delivery of Ohio

Utilities with Natural Gas Energy Efficiency Programs (Cont.)

- 112. UT – Questar Gas
- 111. VA – Columbia Gas of Virginia
- 112. VA – Virginia Natural Gas
- 113. VA – Washington Gas
- 114. VT – Vermont Gas Systems
- 115. WA – Avista Utilities
- 116. WA – Cascade Natural Gas
- 117. WA – Northwest Natural Gas
- 118. WA – Puget Sound Energy
- 119. WI – City Gas
- 120. WI – Madison Gas And Electric
- 121. WI – Midwest Natural Gas
- 122. WI – St. Croix Valley Natural Gas
- 123. WI – Superior Water, Light and Power
- 124. WI – We Energies
- 125. WI – Wisconsin Light and Power
- 126. WI – Wisconsin Public Service
- 127. WI – Xcel Energy
- 128. WY – Montana-Dakota Utilities
- 129. WY – Questar Gas



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