BEFORE THE
STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

In the Matter of

Niagara Mohawk Power Corporation d/b/a National Grid

Cases 224-E-0322 & 24-G-0323

October 18, 2024

Prepared Rebuttal Exhibits of:

Kwaku Duah
Principal Utility Financial Analyst

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State of New York
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Albany, New York 12223-1350

S&P Global

Major energy rate case decisions in the US

January–June 2024

Quarterly update on decided rate cases

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Editor: Majda Shabbir

For detailed data

Access the RRA's electric and gas rate case decisions as of June 30, 2024, data tables.

An overview of state-level electric and gas rate case decisions in the US through the first half of 2024 and select historical data.

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Executive Summary

Introduction

The average electric and gas authorized returns on equity are trending modestly upward.

As per calculations from Regulatory Research Associates, the average return on equity (ROE) authorized electric utilities was 9.68% in rate cases decided in the first half of 2024, above the 9.60% average for full year 2023. There were 21 electric ROE authorizations in January–June 2024 versus 63 in full year 2023.

The average ROE authorized gas utilities was 9.83% in rate cases decided in the first half of 2024, above the 9.64% average for full year 2023. There were 10 gas ROE authorizations in January–June 2024 versus 43 in full year 2023.

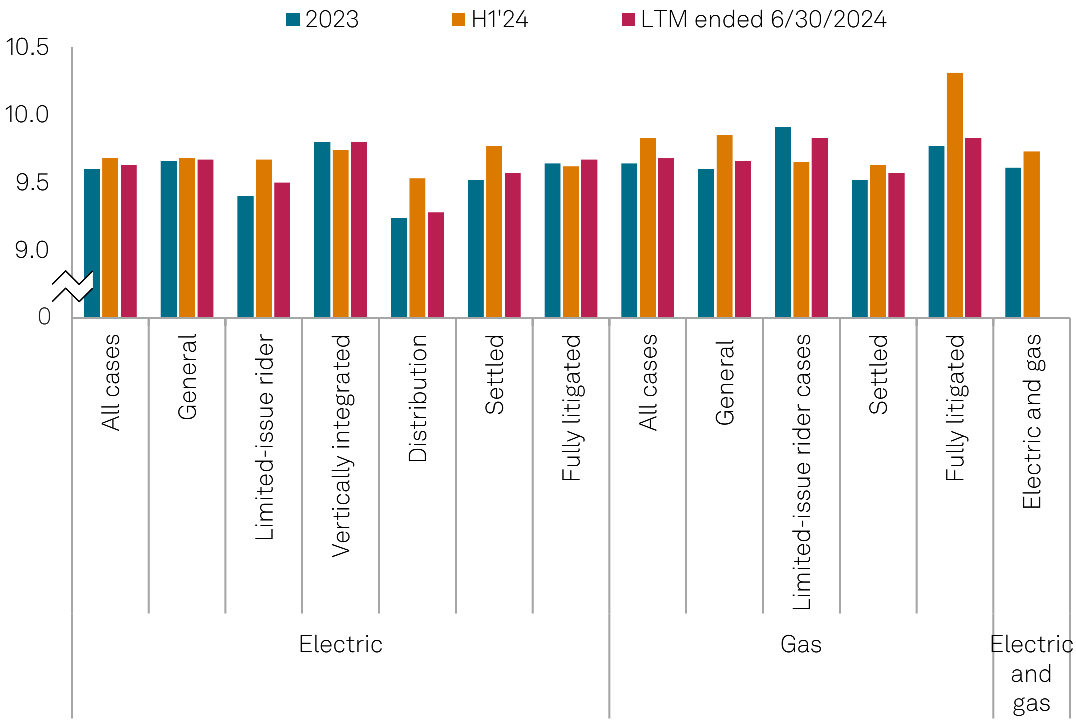
Rate case activity reached record-high levels in 2023, with nearly 165 decisions issued by state public utility commissions, including 106 electric or gas equity return determinations.

While the reasons for a rate case filing are numerous, the main driver continues to be the recovery of capital expenditures. Energy utilities are investing in infrastructure to modernize transmission and distribution systems; build new natural gas, solar and wind generation; and deploy new technologies to accommodate the expansion of electric vehicles, battery storage and advanced metering infrastructure that facilitate the transition toward decarbonization. Other reasons for rate filings include rising expenses, revised cost-of-capital parameters, the impact of broader economic and sectorwide forces on operations, recovery of storm and severe-weather-related costs, regulatory approval for alternative regulatory mechanisms, and the need to address rate treatment to be accorded generation facilities being retired prior to the end of their planned service lives due to the energy transition.

About this report

This quarterly report offers a detailed overview of electric and gas rate case decisions issued in the US during the first half of 2024 and select aggregated historical data. The information presented in this report utilizes the data compiled by Regulatory Research Associates for its rate case database, which is available on the S&P Capital IQ Pro platform. RRA endeavors to follow all “major” rate cases for investor-owned utilities nationwide, with “major” defined as a case in which the utility’s request would result in a rate change of at least $5 million or in which the commission approves a rate change of at least $3 million. In addition to base rate cases, the rate case history database includes details regarding certain limited-issue rider proceedings, primarily those involving significant rate base additions recognized outside of a general rate case. In some of these cases, the rate change coverage criteria may not apply. Historical data in this report may not match earlier data provided in previous reports due to differences in presentation, including the treatment of withdrawn or dismissed cases and the addition of cases not previously included in RRA’s coverage.

Average authorized ROE (%)



	2023	H1'24	LTM ended 6/30/2024
Electric averages			
All cases	9.60	9.68	9.63
General rate cases	9.66	9.68	9.67
Limited-issue rider cases	9.40	9.67	9.50
Vertically integrated cases	9.80	9.74	9.80
Distribution cases	9.24	9.53	9.28
Settled cases	9.52	9.77	9.57
Fully litigated cases	9.64	9.62	9.67
Gas averages			
All cases	9.64	9.83	9.68
General rate cases	9.60	9.85	9.66
Limited-issue rider cases	9.91	9.65	9.83
Settled cases	9.52	9.63	9.57
Fully litigated cases	9.77	10.31	9.83
Composite electric and gas averages			
Electric and gas	9.61	9.73	9.65
US Treasury			
30-year bond yield	4.09	4.46	4.44

Data compiled July 23, 2024.

ROE = return on equity; LTM = last 12 months.

Sources: Regulatory Research Associates, a group within S&P Global Commodity Insights; US Treasury Department.

The Take

Averages calculated for the first half of 2024 show that electric and gas authorized ROEs are trending modestly higher, as the high-interest-rate environment begins to impact authorized ROEs. The effect of interest rate increases on authorized returns is not proportional, however, as regulators are slower to adjust ROEs upward than downward, and affordability concerns persist as regulators contend with customer rate increases stemming from significant but necessary capital investment in the energy transition during a period of high inflation.

In recent years, rate case activity for investor-owned electric and gas utilities in the US has been elevated, with state public utility commissions issuing almost 165 decisions in 2023. With higher interest rates, elevated inflation and accelerating capital spending to address public policy goals, particularly the energy transition, RRA anticipates that the flurry of rate case activity will continue.

Overview of electric and gas authorizations

Both the electric and gas average authorized ROEs in the first half of 2024 inched gently higher than the averages for full year 2023.

The average ROE authorized for electric utilities was 9.68% for rate cases decided in the first half of 2024, above the 9.60% average observed in full year 2023. There were 21 electric ROE determinations reflected in the calculations for January–June 2024 versus 63 in full year 2023.

The average ROE authorized for gas utilities was 9.83% for cases decided in the first half of 2024, above the 9.64% average observed in full year 2023. There were 10 ROE determinations reflected in the calculations for January–June 2024 versus 43 in full year 2023.

The electric data set includes several limited-issue rider cases. Historically, the ROEs authorized in limited-issue rider cases were meaningfully higher than those approved in general rate cases, driven primarily by incentives allowed in Virginia for certain types of generation investment. These premiums have largely expired. Excluding rider cases, the average authorized ROE for electric cases was 9.68% in the first half of 2024, versus 9.66% for full year 2023. There was only one limited-issue rider case with a gas authorized ROE in January–June 2024 and a 9.65% ROE was authorized. Excluding the one rider rate case in the first half of 2024 and six rider cases in full year 2023, the average authorized ROE for gas cases was 9.85% in January–June 2024 and 9.60% in full year 2023. For the most part, limited-issue riders have a limited impact on average ROEs in the gas sector, as most of the gas riders rely on ROEs approved in a previous base rate case.

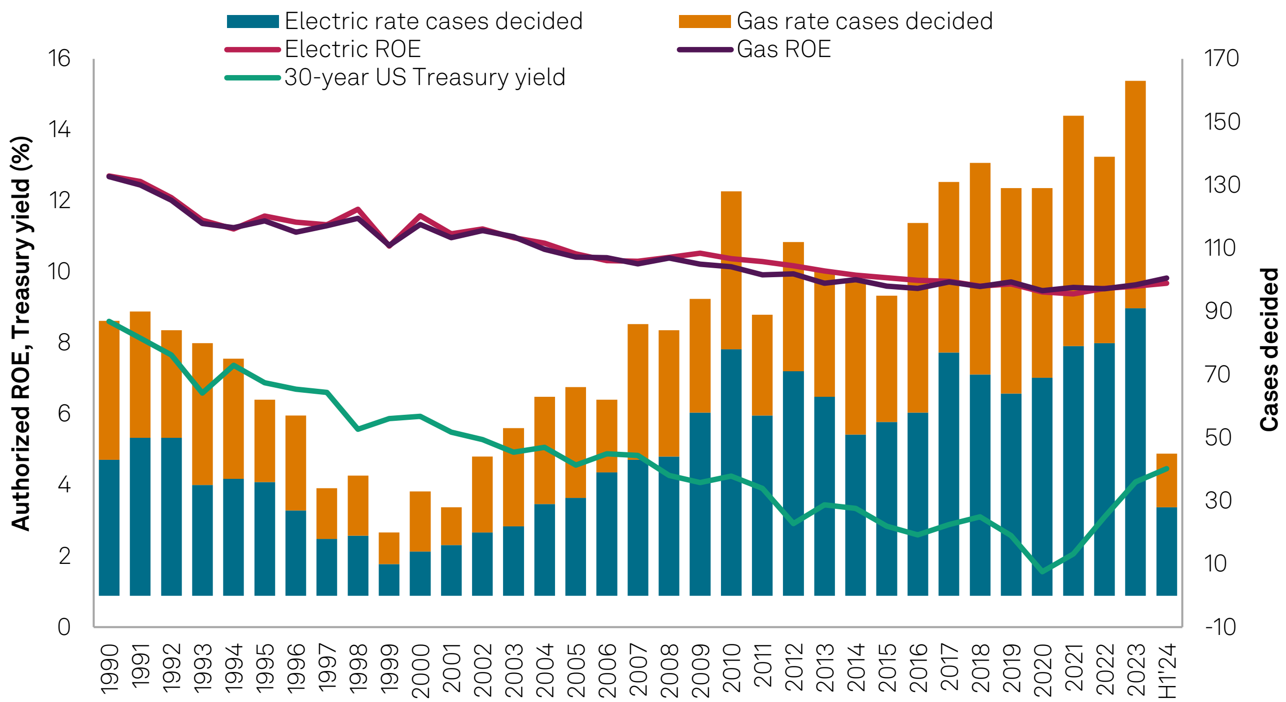
In the first half of 2024, the median ROE authorized in all electric utility rate cases was 9.70% versus 9.50% in full year 2023; for gas utilities, the metric was 9.68% in the first half of 2024 and 9.60% in full year 2023.

Looking at the last 12 months ended June 30, 2024, the average ROE authorized in all electric utility rate cases was 9.63% and the median was 9.60%. For gas utilities in the 12-month period ending June 30, 2024, the average was 9.68% and the median was 9.65%.

Historically, authorized returns have generally tracked the overall direction of interest rates, albeit with two important caveats to keep in mind — the magnitude of the change in authorized ROEs may not be as dramatic as that observed in interest rates, and changes in authorized ROEs may lag changes in interest rates, especially in the upward direction.

Interest rates — as measured by the 30-year US Treasury bond yield — fell almost steadily between 1990 and 2020, placing downward pressure on authorized ROEs. Between 1990 and 2020, Treasury yields fell more than 700 basis points, to 1.56% from 8.61%, while average authorized ROEs for electric and gas utilities combined fell less than 325 basis points, to 9.45% from 12.69%. The average authorized ROEs did not fall below 10% until 2011 for gas utilities and until 2014 for electric utilities. The calendar-year averages fell below 9.50% for the first time in 2020.

Average electric, gas authorized ROEs; number of rate cases decided



Data compiled July 23, 2024.
ROE = return on equity.
Sources: Regulatory Research Associates, a group within S&P Global Commodity Insights; US Treasury Department.

The decline in authorized ROEs has coincided with an upswing in rate case activity, with 100 or more cases adjudicated in 12 of the last 15 calendar years. This count includes electric and gas cases where no ROEs were specified but does not include withdrawn cases. At almost 165 cases decided, rate case activity in 2023 was the most robust observed in any year during the 1990–2023 period, with authorized increases totaling about $12 billion.

With interest rates and authorized ROEs declining at different rates between 1990 and 2020, the spread between authorized ROEs and the average yield on 30-year US Treasurys somewhat widened over this period — going from a little over 400 basis points in 1990 to a peak of just under 800 basis points in 2020.

The widening spread is attributable primarily to the regulators' often-unstated understanding that the drop in interest rates caused by the US Federal Reserve intervention was unusual. Consequently, regulators did not fully reflect the interest rate drop in newly authorized ROEs in some instances; in others, regulators acknowledged that the changing dynamics of the industry and instability in the overall economy presented increased risks for investors, justifying a higher premium over interest rates.

However, with the uptick in interest rates since 2020, the spread has begun to narrow, falling to around 550 basis points in 2023.

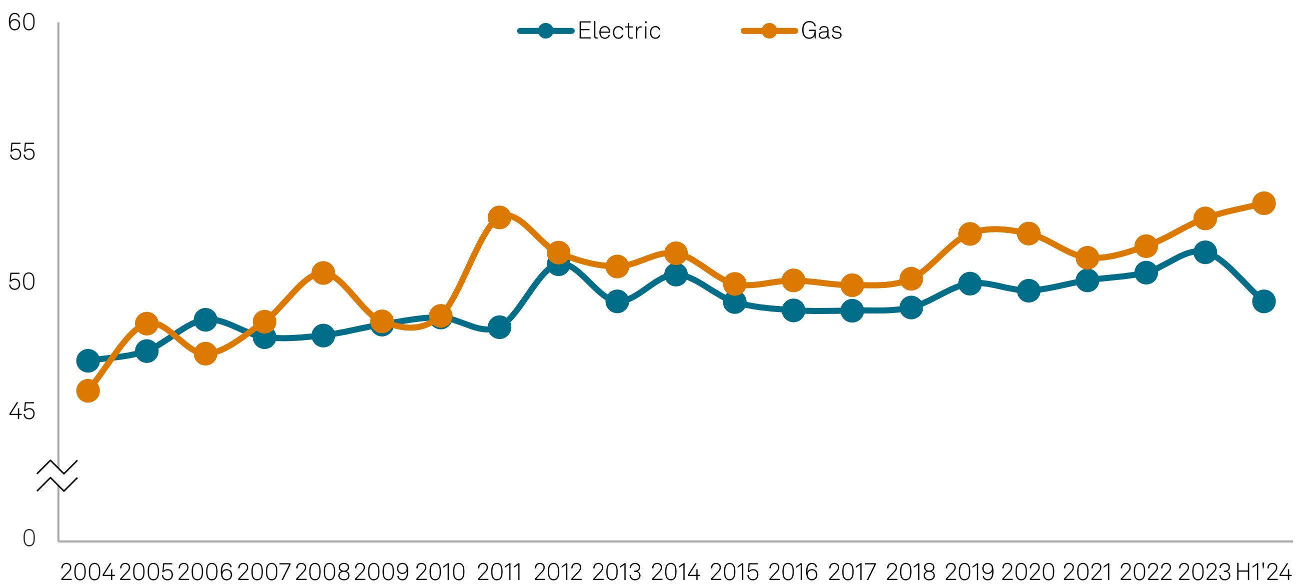
With the myriad factors putting upward pressure on customer bills, the spread may continue to narrow as regulators may become more reluctant to raise authorized returns.

Capital structure trends

The negative cash flow impact of federal tax changes that took effect in 2018 raised concerns regarding utility liquidity and credit metrics. In response, many utilities sought higher common equity ratios, and the average authorized equity ratios adopted by utility commissions in 2019 were modestly higher than those observed in 2018 and 2017.

For full years 2023, 2022, 2021, 2020 and 2019, the average equity ratios authorized in electric utility cases were 51.15%, 50.36%, 50.06%, 49.67% and 49.94%, respectively. The average equity ratios authorized gas utilities for these years were 52.45%, 51.38%, 50.94%, 51.87% and 51.86%, respectively.

Average authorized equity ratio (%)



Data compiled July 23, 2024.
Source: Regulatory Research Associates, a group within S&P Global Commodity Insights.

In the first half of 2024, the average authorized equity ratio for electric utility cases nationwide was 49.26%. For gas utilities, the average authorized equity ratio nationwide was 53.03%.

From a longer-term perspective, equity ratios have generally increased over the last several years — the average equity ratio approved in electric rate cases decided during 2004 was 46.96%, while the average for gas utilities was 45.81%. In the wake of the 2008 financial crisis, many commissions began approving capital structures that were more equity rich. Authorized equity ratios for gas utilities have been above those of electric utilities for the bulk of the period since 2004.

A more granular look at ROE trends

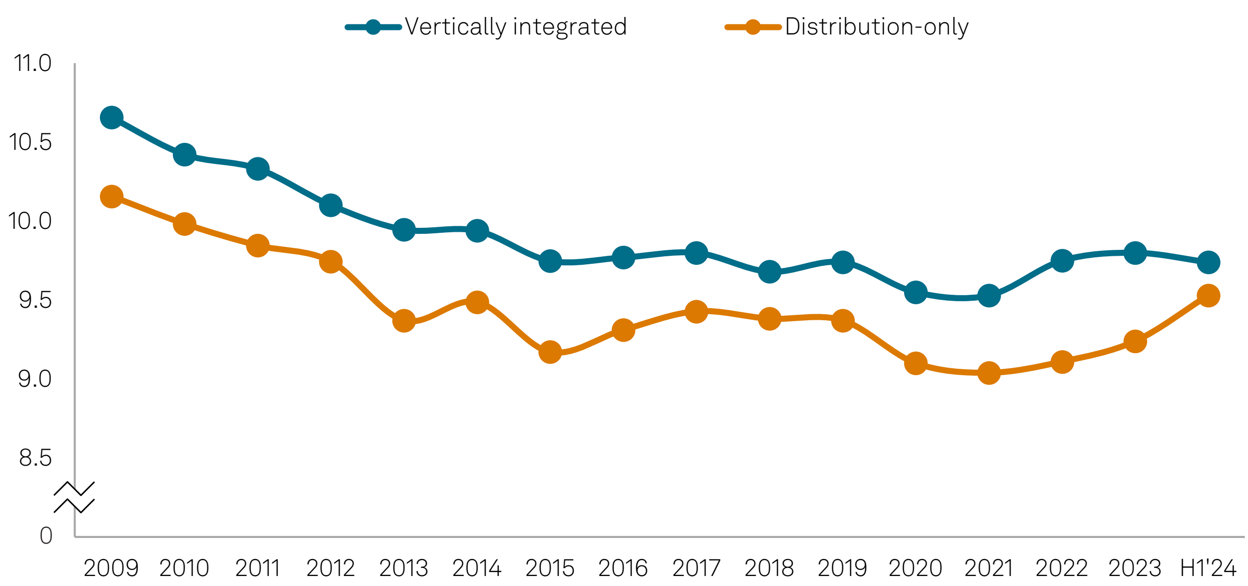
Thus far, the discussion has looked at broad trends in authorized ROEs; the following sections provide a more detailed view.

RRA has observed that there can be significant differences between average ROEs based on the types of proceedings/decisions in which these ROEs were established.

As a result of the electric industry restructuring, certain states unbundled electric rates and implemented retail competition for generation. Commissions in those states now have jurisdiction only over the revenue requirement and return parameters for distribution operations.

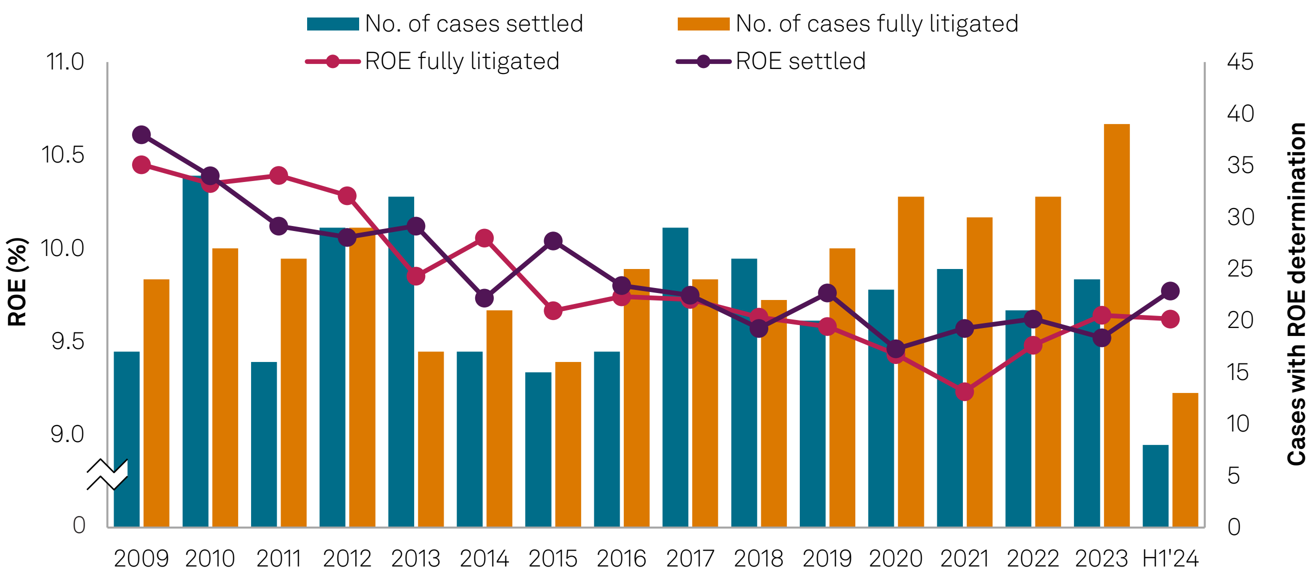
RRA finds that the annual average authorized ROEs in vertically integrated cases involving generation historically have been about 30-65 basis points higher than in distribution-only cases, arguably reflecting the increased risk associated with the ownership and operation of generation assets.

Average authorized electric ROEs (%)



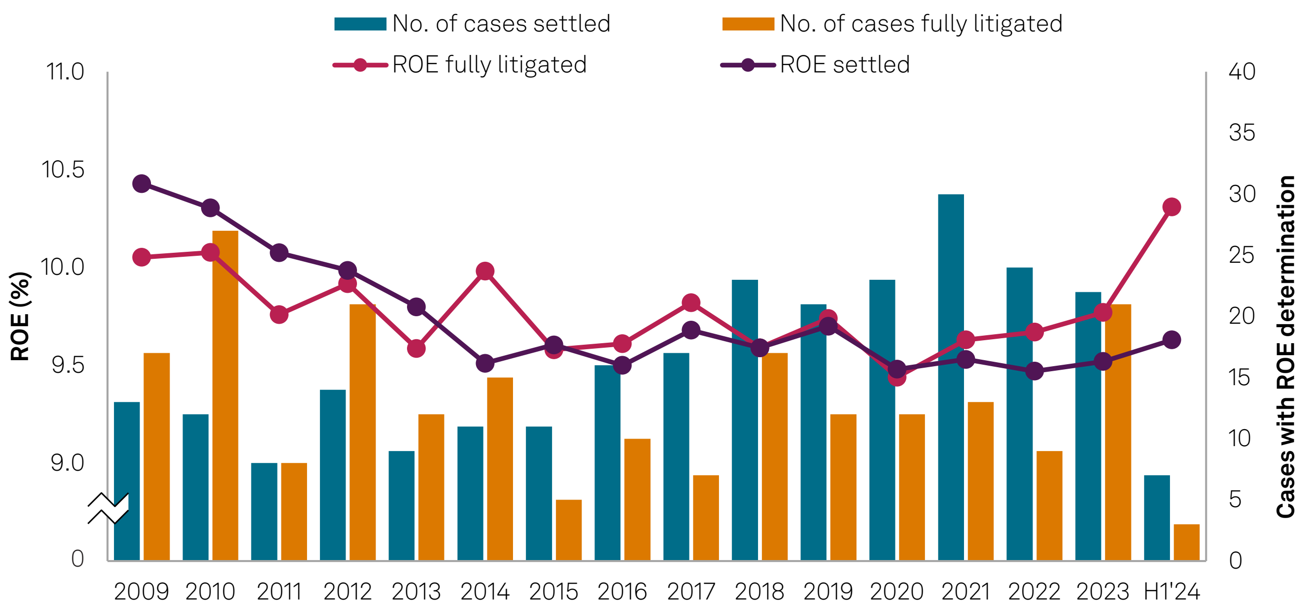
Data compiled July 23, 2024.
ROE = return on equity.
Source: Regulatory Research Associates, a group within S&P Global Commodity Insights.

Average authorized electric ROEs: settled vs. fully litigated cases



Data compiled July 23, 2024.
ROE = return on equity.
Source: Regulatory Research Associates, a group within S&P Global Commodity Insights.

Average authorized gas ROEs: settled vs. fully litigated cases



Data compiled July 23, 2024.
ROE = return on equity.
Source: Regulatory Research Associates, a group within S&P Global Commodity Insights.

The industry average ROE for vertically integrated electric utilities was 9.74% in cases decided in the first half of 2024 versus the 9.80% average in full year 2023. For electric distribution-only cases, the industry average ROE was 9.53% in January–June 2024 versus the 9.24% average in full year 2023.

Settlements have frequently been used to resolve rate cases over the last several years, and many are "black box" settlements that do not specify the ROE or other typical rate case parameters underlying the stipulated rate change. Some states, however, preclude this type of treatment, requiring settlements to specify these values, if not the specific adjustments from which these values were derived.

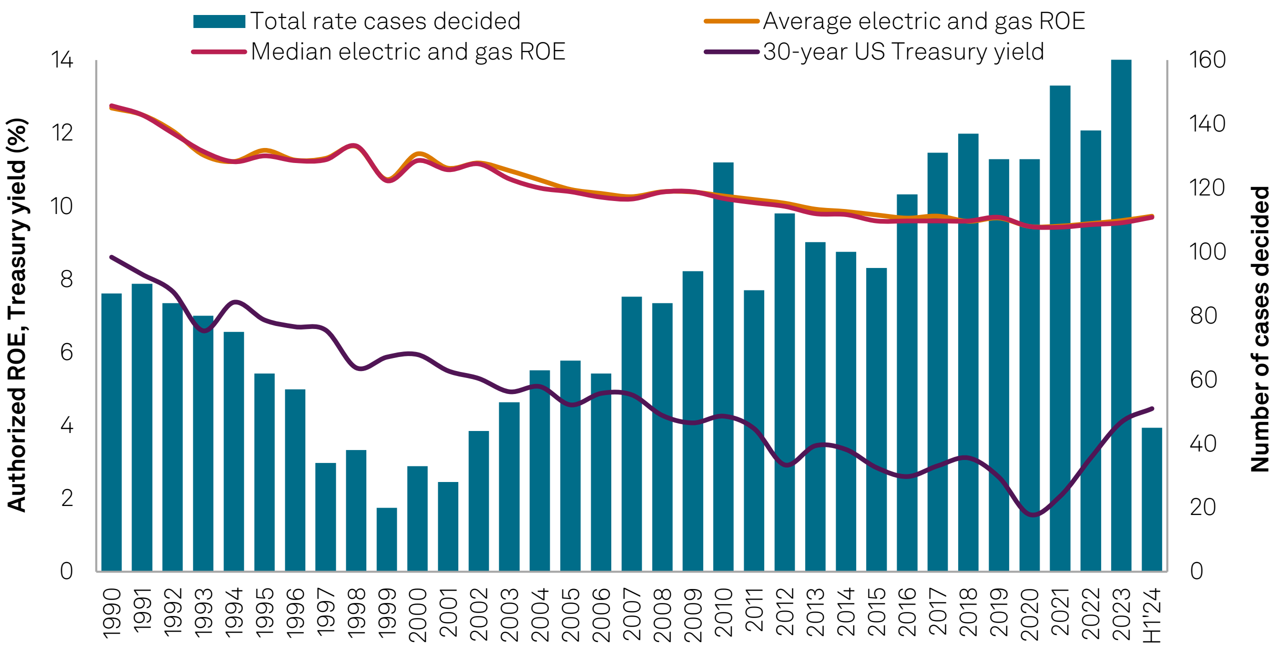
For both electric and gas cases, RRA has found no discernible pattern in the average authorized ROEs in cases that were settled versus those that were fully litigated. In some years, the average authorized ROE was higher for fully litigated cases, while in others, it was higher for settled cases.

The following discussion focuses on the corresponding tables available here.

Table 1 shows the average ROE authorized in major electric and gas rate decisions annually since 1990 and quarterly since 2019, followed by the number of observations in each period. **Table 2** indicates the composite electric and gas industry data for all major cases, summarized annually since 2004 and quarterly since 2021.

Tables 3 and 4 provide comparisons since 2009 of average authorized ROEs for settled versus fully litigated cases, general rate cases versus limited-issue rider proceedings and vertically integrated cases versus delivery-only cases for electric and gas utilities, respectively.

Composite electric, gas average authorized ROEs; total number of rate cases



Data compiled July 23, 2024.
ROE = return on equity.
Sources: Regulatory Research Associates, a group within S&P Global Commodity Insights; US Treasury Department.

The individual electric and gas cases decided in the first half of 2024 are listed in **Table 5**, with the decision date shown first, followed by the company name, the abbreviation for the state issuing the decision, the authorized rate of return, the ROE and the percentage of common equity in the adopted capital structure. Next, RRA indicates the month and year in which the adopted test year ended, whether the commission utilized an average or a year-end rate base and the amount of the permanent rate change authorized. The dollar amounts represent the permanent rate change ordered at the time the decisions were rendered. This study does not reflect fuel adjustment clause rate changes.

The simple mean is utilized for the return averages. In addition, the average equity returns indicated in this report reflect the ROEs approved in cases decided during the specified time periods and are not necessarily representative of the average currently authorized ROEs for utilities industrywide or the returns earned by the utilities.

Table 6 and the graph above track the average and median equity return authorized for all electric and gas rate cases combined since 1990. As the table indicates, authorized ROEs have generally trended downward since 1990, reflecting the significant decline in interest rates and capital costs over this time frame.

Further Reading

The rate case process: A conduit to enlightenment

Rate base: It's more complicated than it sounds

Frequently Asked Questions

Intro to Water Utilities — Current Trends and Growth Drivers

An Overview of FERC Regulation

FERC Regulatory Review

State Regulatory Evaluations — Energy

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About Regulatory Research Associates

Regulatory Research Associates, a group within S&P Global Commodity Insights, is the leading authority on utility securities and regulation. Understanding the financial and strategic impact of federal and state regulation is a key to success in the energy business. For over 40 years, Regulatory Research Associates has been the leading provider of independent research, expert analysis, proprietary data and consultation on utility securities and regulation. S&P Global Commodity Insights produces content for distribution on S&P Capital IQ Pro.

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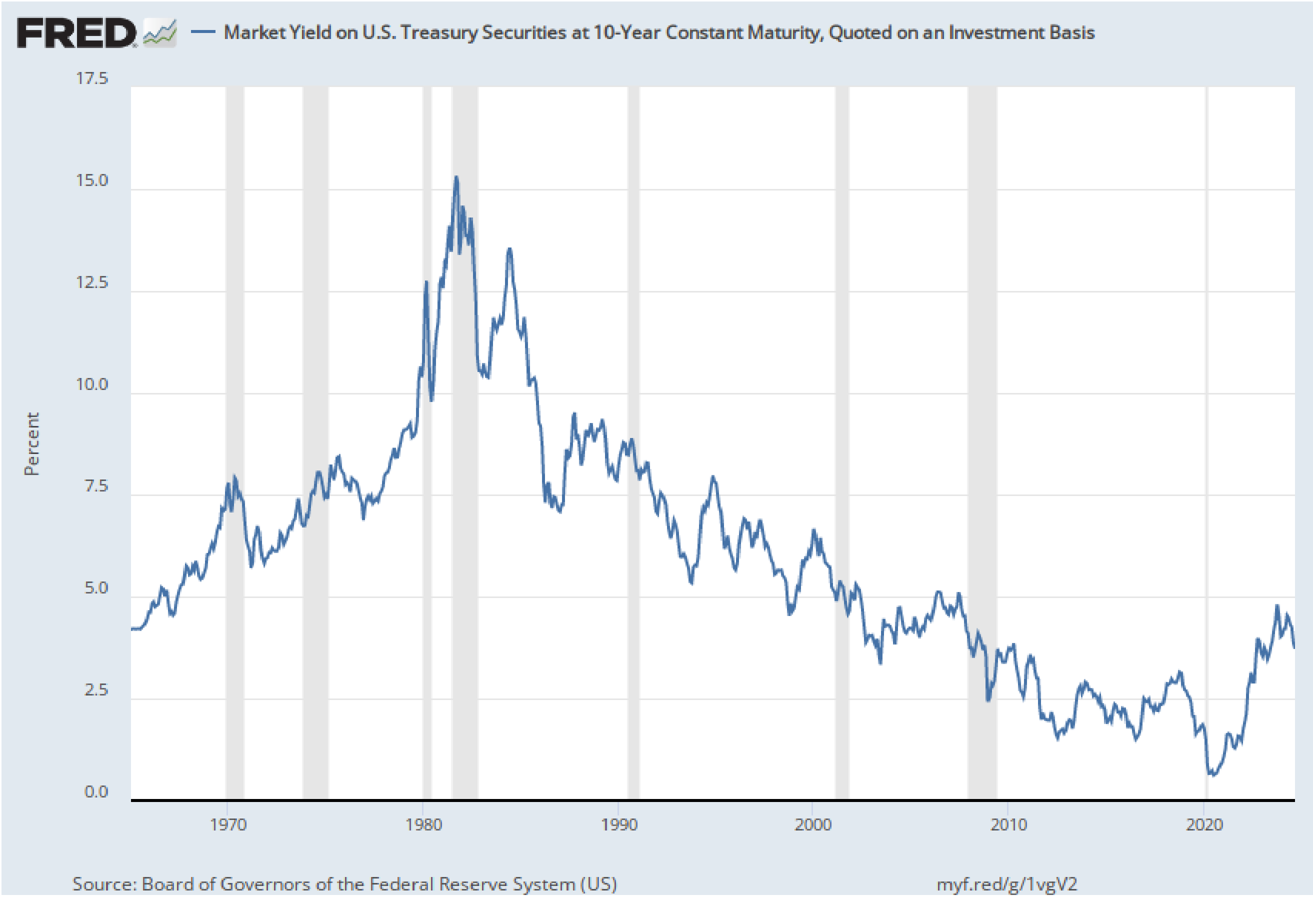
FRED
Market Yield on U.S. Treasury Securities at 10-Year Constant Maturity, Quoted on an Investment Basis
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0
Percent
1970
1980
1990
2000
2010
2020
Source: Board of Governors of the Federal Reserve System (US)
myf.red/g/1vgV2

S&P Global
Ratings

RatingsDirect®

Issuer Ranking:

North American Electric, Gas, And Water Regulated Utilities, Strongest To Weakest

September 10, 2024

The following list ranks North American regulated utility companies by the rating, outlook, and business and financial risk profile assessment. S&P Global Ratings ranks investment-grade companies (rated 'BBB-' or higher) with the same rating and outlook first by the business risk profile, then the financial risk profile. Speculative-grade companies (rated 'BB+' or lower) with the same rating and outlook are ordered by financial risk profile, then by business risk profile. If not distinguished by these factors, companies are listed in alphabetical order. The ratings and scores in this report are as of Sept. 9, 2024.

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Issuer ranking: North American regulated utility companies

Company	Issuer credit rating	Outlook	Stand-alone credit profile	Business risk profile	Financial risk profile	Primary analyst
Alberta Electric System Operator (AESO)	AA-	Stable	aa-	Excellent	Modest	Shiny A Rony
Midcontinent Independent System Operator Inc.	AA-	Stable	aa-	Excellent	Modest	Daria Babitsch
Madison Gas & Electric Co.	AA-	Stable	aa-	Excellent	Intermediate	Shiny A Rony
American Transmission Co.	A+	Stable	a+	Excellent	Intermediate	Beverly R Gantt
California Independent System Operator Corp.	A+	Stable	a+	Excellent	Intermediate	Daria Babitsch
California Water Service Co.	A+	Stable	a+	Excellent	Intermediate	Beverly R Gantt
Golden State Water Co.	A+	Stable	aa-	Excellent	Intermediate	Sloan Millman, CFA, FRM
Northwest Natural Gas Co.	A+	Stable	a+	Excellent	Intermediate	Mayur Deval
Toronto Hydro Corp.	A	Positive	a	Excellent	Significant	Omar El Gamal, CFA
Alabama Power Co.	A	Stable	a	Excellent	Intermediate	Shiny A Rony
Energir Inc.	A	Stable	a	Excellent	Intermediate	Omar El Gamal, CFA

Issuer ranking: North American regulated utility companies (cont.)

Company	Issuer credit rating	Outlook	Stand-alone credit profile	Business risk profile	Financial risk profile	Primary analyst
Entegrus Powerlines Inc.	A	Stable	a	Excellent	Intermediate	Mayur Deval
Florida Power & Light Co.	A	Stable	a+	Excellent	Intermediate	Daria Babitsch
GrandBridge Energy Inc.	A	Stable	a	Excellent	Intermediate	Mayur Deval
London Hydro Inc.	A	Stable	a	Excellent	Intermediate	Obioma Ugboaja
Middlesex Water Co.	A	Stable	a	Excellent	Intermediate	Daria Babitsch
New Jersey-American Water Co.	A	Stable	a+	Excellent	Intermediate	William Hernandez
Oncor Electric Delivery Co. LLC	A	Stable	a	Excellent	Intermediate	Daria Babitsch
Pennsylvania-American Water Co.	A	Stable	a+	Excellent	Intermediate	William Hernandez
San Jose Water Co.	A	Stable	a	Excellent	Intermediate	Daria Babitsch
Veolia Utility Resources LLC	A	Stable	a	Excellent	Intermediate	Sloan Millman, CFA, FRM
Windsor Canada Utilities Ltd.	A	Stable	a	Excellent	Intermediate	Shiny A Rony
Wisconsin Gas LLC	A	Stable	a	Excellent	Intermediate	Shiny A Rony
American States Water Co.	A	Stable	a	Excellent	Significant	Sloan Millman, CFA, FRM
American Water Works Co. Inc.	A	Stable	a	Excellent	Significant	William Hernandez
Berkshire Hathaway Energy Co.	A	Stable	bbb	Excellent	Significant	Sloan Millman, CFA, FRM
Central Maine Power Co.	A	Stable	a	Excellent	Significant	Omar El Gamal, CFA
Georgia Power Co.	A	Stable	a	Excellent	Significant	Shiny A Rony
Green Mountain Power Corp.	A	Stable	bbb+	Excellent	Significant	Omar El Gamal, CFA
Hydro One Inc.	A	Stable	a	Excellent	Significant	Mayur Deval
Hydro One Ltd.	A	Stable	a	Excellent	Significant	Mayur Deval
PPL Electric Utilities Corp.	A	Stable	a	Excellent	Significant	Mayur Deval
Northern New England Energy Corp.	A	Stable	bbb	Excellent	Aggressive	Omar El Gamal, CFA
Connecticut Natural Gas Corp.	A	Negative	a+	Excellent	Intermediate	Omar El Gamal, CFA
Northwest Natural Holding Co.	A	Negative	a	Excellent	Intermediate	Mayur Deval

Issuer ranking: North American regulated utility companies (cont.)

Company	Issuer credit rating	Outlook	Stand-alone credit profile	Business risk profile	Financial risk profile	Primary analyst
NSTAR Electric Co.	A	Negative	a+	Excellent	Intermediate	Ruchi Agrawal
Public Service Co. of New Hampshire	A	Negative	a	Excellent	Intermediate	Ruchi Agrawal
Baltimore Gas and Electric Co.	A	Negative	a	Excellent	Significant	Daria Babitsch
Connecticut Light & Power Co.	A	Negative	a	Excellent	Significant	Ruchi Agrawal
Southern California Gas Co.	A	Negative	a	Excellent	Significant	Obioma Ugboaja
Wisconsin Power & Light Co.	A	Negative	a	Excellent	Significant	Beverly R Gantt
Trans-Allegheny Interstate Line Co.	A-	Positive	a+	Excellent	Modest	Ruchi Agrawal
American Transmission Systems Inc.	A-	Positive	a	Excellent	Intermediate	Sloan Millman, CFA, FRM
Mid-Atlantic Interstate Transmission LLC	A-	Positive	a	Excellent	Intermediate	Sloan Millman, CFA, FRM
FirstEnergy Transmission LLC	A-	Positive	a-	Excellent	Significant	Sloan Millman, CFA, FRM
Aqua Pennsylvania Inc.	A-	Stable	a+	Excellent	Intermediate	Beverly R Gantt
Atlanta Gas Light Co.	A-	Stable	aa-	Excellent	Intermediate	Shiny A Rony
DTE Gas Co.	A-	Stable	a+	Excellent	Intermediate	Ruchi Agrawal
MidAmerican Energy Co.	A-	Stable	a-	Excellent	Intermediate	Sloan Millman, CFA, FRM
Public Service Electric & Gas Co.	A-	Stable	a+	Excellent	Intermediate	Gerrit W Jepsen, CFA
York Water Co. (The)	A-	Stable	a-	Excellent	Intermediate	Daria Babitsch
Alectra Inc.	A-	Stable	a-	Excellent	Significant	Omar El Gamal, CFA
AltaLink Investments L.P.	A-	Stable	a-	Excellent	Significant	Ruchi Agrawal
AltaLink L.P.	A-	Stable	a-	Excellent	Significant	Ruchi Agrawal
Atlantic City Electric Co.	A-	Stable	a-	Excellent	Significant	Daria Babitsch
Atmos Energy Corp.	A-	Stable	a-	Excellent	Significant	Shiny A Rony
Cleco Power LLC	A-	Stable	a-	Excellent	Significant	Shiny A Rony
Commonwealth Edison Co.	A-	Stable	a-	Excellent	Significant	Daria Babitsch

Issuer ranking: North American regulated utility companies (cont.)

Company	Issuer credit rating	Outlook	Stand-alone credit profile	Business risk profile	Financial risk profile	Primary analyst
Consolidated Edison Co. of New York Inc.	A-	Stable	a-	Excellent	Significant	Matthew L O'Neill
Consolidated Edison Inc.	A-	Stable	a-	Excellent	Significant	Matthew L O'Neill
Consumers Energy Co.	A-	Stable	a-	Excellent	Significant	Ruchi Agrawal
Delmarva Power & Light Co.	A-	Stable	a-	Excellent	Significant	Daria Babitsch
DTE Electric Co.	A-	Stable	a-	Excellent	Significant	Obioma Ugboaja
Entergy Arkansas LLC	A-	Stable	a-	Excellent	Significant	Omar El Gamal, CFA
Entergy Mississippi LLC	A-	Stable	a	Excellent	Significant	Omar El Gamal, CFA
Essential Utilities Inc.	A-	Stable	a-	Excellent	Significant	Beverly R Gantt
Evergy Metro Inc.	A-	Stable	a	Excellent	Significant	Shiny A Rony
Kentucky Utilities Co.	A-	Stable	a-	Excellent	Significant	Mayur Deval
Louisville Gas & Electric Co.	A-	Stable	a-	Excellent	Significant	Mayur Deval
New York State Electric & Gas Corp.	A-	Stable	a-	Excellent	Significant	Omar El Gamal, CFA
NextEra Energy Inc.	A-	Stable	a-	Excellent	Significant	Gerrit W Jepsen, CFA
Nicor Gas Co.	A-	Stable	a-	Excellent	Significant	Shiny A Rony
Oklahoma Gas & Electric Co.	A-	Stable	a-	Excellent	Significant	Sloan Millman, CFA, FRM
ONE Gas Inc.	A-	Stable	a-	Excellent	Significant	Sloan Millman, CFA, FRM
Orange and Rockland Utilities Inc.	A-	Stable	bbb+	Excellent	Significant	Matthew L O'Neill
Peoples Gas Light & Coke Co. (The)	A-	Stable	a-	Excellent	Significant	Shiny A Rony
Pepco Holdings LLC	A-	Stable	a-	Excellent	Significant	Daria Babitsch
PNG Cos. LLC	A-	Stable	a-	Excellent	Significant	Beverly R Gantt
Potomac Electric Power Co.	A-	Stable	a-	Excellent	Significant	Daria Babitsch
PPL Corp.	A-	Stable	a-	Excellent	Significant	Matthew L O'Neill
Rhode Island Energy	A-	Stable	bbb+	Excellent	Significant	Mayur Deval

Issuer ranking: North American regulated utility companies (cont.)

Company	Issuer credit rating	Outlook	Stand-alone credit profile	Business risk profile	Financial risk profile	Primary analyst
Rochester Gas & Electric Corp.	A-	Stable	a-	Excellent	Significant	Omar El Gamal, CFA
Southern Co.	A-	Stable	a-	Excellent	Significant	Gabe Grosberg
WEC Energy Group Inc.	A-	Stable	a-	Excellent	Significant	William Hernandez
Wisconsin Electric Power Co.	A-	Stable	a-	Excellent	Significant	Shiny A Rony
Wisconsin Public Service Corp.	A-	Stable	a-	Excellent	Significant	Shiny A Rony
Mississippi Power Co.	A-	Stable	bbb+	Strong	Significant	Shiny A Rony
Nevada Power Co.	A-	Stable	bbb	Strong	Significant	Sloan Millman, CFA, FRM
Sierra Pacific Power Co.	A-	Stable	bbb	Strong	Significant	Sloan Millman, CFA, FRM
Southern Co. Gas	A-	Stable	bbb+	Strong	Significant	Shiny A Rony
Southern Connecticut Gas Co.	A-	Developing	a-	Excellent	Intermediate	Omar El Gamal, CFA
Connecticut Water Service Inc.	A-	Negative	a-	Excellent	Intermediate	Daria Babitsch
Alliant Energy Corp.	A-	Negative	a-	Excellent	Significant	Beverly R Gantt
Enbridge Gas Inc.	A-	Negative	a-	Excellent	Significant	Shiny A Rony
Eversource Energy	A-	Negative	a-	Excellent	Significant	Sloan Millman, CFA, FRM
Fortis Inc.	A-	Negative	a-	Excellent	Significant	Mayur Deval
FortisAlberta Inc.	A-	Negative	a-	Excellent	Significant	Mayur Deval
Interstate Power & Light Co.	A-	Negative	a-	Excellent	Significant	Beverly R Gantt
ITC Holdings Corp.	A-	Negative	a-	Excellent	Significant	Mayur Deval
Northern States Power Co.	A-	Negative	a	Excellent	Significant	William Hernandez
Northern States Power Wisconsin	A-	Negative	a-	Excellent	Significant	William Hernandez
NSTAR Gas Co.	A-	Negative	a-	Excellent	Significant	Ruchi Agrawal
Public Service Co. of Colorado	A-	Negative	a-	Excellent	Significant	William Hernandez
SJW Group	A-	Negative	a-	Excellent	Significant	Daria Babitsch
Tucson Electric Power Co.	A-	Negative	bbb+	Excellent	Significant	Mayur Deval

Issuer ranking: North American regulated utility companies (cont.)

Company	Issuer credit rating	Outlook	Stand-alone credit profile	Business risk profile	Financial risk profile	Primary analyst
United Illuminating Co. (The)	A-	Negative	a-	Excellent	Significant	Omar El Gamal, CFA
Washington Gas Light Co.	A-	Negative	a-	Excellent	Significant	Ruchi Agrawal
Yankee Gas Services Co.	A-	Negative	bbb+	Excellent	Significant	Ruchi Agrawal
Eversource Gas Co. of Massachusetts	A-	Negative	bbb	Strong	Significant	Ruchi Agrawal
Exelon Corp.	BBB+	Positive	bbb+	Excellent	Significant	Gerrit W Jepsen, CFA
FirstEnergy Pennsylvania Electric Co.	BBB+	Positive	bbb+	Excellent	Significant	Sloan Millman, CFA, FRM
Ohio Edison Co.	BBB+	Positive	a-	Excellent	Significant	Ruchi Agrawal
PECO Energy Co.	BBB+	Positive	a	Excellent	Significant	Daria Babitsch
Toledo Edison Co.	BBB+	Positive	bbb+	Excellent	Significant	Sloan Millman, CFA, FRM
Duquesne Light Co.	BBB+	Stable	aa-	Excellent	Modest	Sloan Millman, CFA, FRM
Evergy Kansas South Inc.	BBB+	Stable	aa-	Excellent	Modest	Shiny A Rony
New England Power Co.	BBB+	Stable	aa-	Excellent	Modest	Ruchi Agrawal
Northern Indiana Public Service Co. LLC	BBB+	Stable	a-	Excellent	Intermediate	Beverly R Gantt
Piedmont Natural Gas Co. Inc.	BBB+	Stable	a	Excellent	Intermediate	Beverly R Gantt
Spire Alabama Inc.	BBB+	Stable	a+	Excellent	Intermediate	William Hernandez
Ameren Corp.	BBB+	Stable	bbb+	Excellent	Significant	Beverly R Gantt
Ameren Illinois Co.	BBB+	Stable	a-	Excellent	Significant	Beverly R Gantt
Arizona Public Service Co.	BBB+	Stable	bbb+	Excellent	Significant	Beverly R Gantt
Black Hills Corp.	BBB+	Stable	bbb+	Excellent	Significant	Shiny A Rony
Black Hills Power Inc.	BBB+	Stable	bbb+	Excellent	Significant	Shiny A Rony
CMS Energy Corp.	BBB+	Stable	bbb+	Excellent	Significant	Sloan Millman, CFA, FRM
Dominion Energy Inc.	BBB+	Stable	bbb+	Excellent	Significant	Obioma Ugboaja
Dominion Energy Ohio	BBB+	Stable	a-	Excellent	Significant	Obioma Ugboaja

Issuer ranking: North American regulated utility companies (cont.)

Company	Issuer credit rating	Outlook	Stand-alone credit profile	Business risk profile	Financial risk profile	Primary analyst
DTE Energy Co.	BBB+	Stable	bbb+	Excellent	Significant	Obioma Ugboaja
Duke Energy Carolinas LLC	BBB+	Stable	a-	Excellent	Significant	Beverly R Gantt
Duke Energy Corp.	BBB+	Stable	bbb+	Excellent	Significant	Matthew L O'Neill
Duke Energy Florida LLC	BBB+	Stable	a-	Excellent	Significant	Beverly R Gantt
Duke Energy Indiana Inc.	BBB+	Stable	a-	Excellent	Significant	Beverly R Gantt
Duke Energy Kentucky Inc.	BBB+	Stable	bbb+	Excellent	Significant	Beverly R Gantt
Duke Energy Ohio Inc.	BBB+	Stable	a-	Excellent	Significant	Beverly R Gantt
Duke Energy Progress LLC	BBB+	Stable	a-	Excellent	Significant	Beverly R Gantt
Entergy Corp.	BBB+	Stable	bbb+	Excellent	Significant	Matthew L O'Neill
Entergy Louisiana LLC	BBB+	Stable	bbb+	Excellent	Significant	Omar El Gamal, CFA
Entergy Texas Inc.	BBB+	Stable	bbb+	Excellent	Significant	Omar El Gamal, CFA
Evergy Inc.	BBB+	Stable	bbb+	Excellent	Significant	Shiny A Rony
Evergy Kansas Central Inc.	BBB+	Stable	a-	Excellent	Significant	Shiny A Rony
KeySpan Gas East Corp.	BBB+	Stable	bbb+	Excellent	Significant	Obioma Ugboaja
Massachusetts Electric Co.	BBB+	Stable	a-	Excellent	Significant	Ruchi Agrawal
Niagara Mohawk Power Corp.	BBB+	Stable	bbb+	Excellent	Significant	Obioma Ugboaja
NiSource Inc.	BBB+	Stable	bbb+	Excellent	Significant	Beverly R Gantt
OGE Energy Corp.	BBB+	Stable	bbb+	Excellent	Significant	Sloan Millman, CFA, FRM
Pinnacle West Capital Corp.	BBB+	Stable	bbb+	Excellent	Significant	Beverly R Gantt
Portland General Electric Co.	BBB+	Stable	bbb+	Excellent	Significant	Sloan Millman, CFA, FRM
Progress Energy Inc.	BBB+	Stable	bbb+	Excellent	Significant	Beverly R Gantt
Public Service Co. of North Carolina Inc.	BBB+	Stable	a-	Excellent	Significant	Obioma Ugboaja

Issuer ranking: North American regulated utility companies (cont.)

Company	Issuer credit rating	Outlook	Stand-alone credit profile	Business risk profile	Financial risk profile	Primary analyst
Public Service Enterprise Group Inc.	BBB+	Stable	bbb+	Excellent	Significant	Gerrit W Jepsen, CFA
Questar Gas Co.	BBB+	Stable	a-	Excellent	Significant	Obioma Ugboaja
San Diego Gas & Electric Co.	BBB+	Stable	bbb+	Excellent	Significant	Obioma Ugboaja
Spire Missouri Inc.	BBB+	Stable	a-	Excellent	Significant	William Hernandez
Texas-New Mexico Power Co.	BBB+	Stable	a-	Excellent	Significant	Omar El Gamal, CFA
Union Electric Co. (d/b/a Ameren Missouri)	BBB+	Stable	bbb+	Excellent	Significant	Beverly R Gantt
Unitil Corp.	BBB+	Stable	bbb+	Excellent	Significant	Shiny A Rony
Virginia Electric & Power Co.	BBB+	Stable	a	Excellent	Significant	Obioma Ugboaja
National Grid North America Inc.	BBB+	Stable	bbb+	Excellent	Aggressive	Obioma Ugboaja
Spire Inc.	BBB+	Stable	bbb+	Excellent	Aggressive	William Hernandez
AVANGRID Inc.	BBB+	Stable	bbb+	Strong	Significant	Omar El Gamal, CFA
Berkshire Gas Co.	BBB+	Stable	bbb	Strong	Significant	Omar El Gamal, CFA
Boston Gas Co.	BBB+	Stable	bbb+	Strong	Significant	Ruchi Agrawal
Brooklyn Union Gas Co. (The)	BBB+	Stable	bbb	Strong	Significant	Obioma Ugboaja
Dominion Energy South Carolina Inc.	BBB+	Stable	bbb+	Strong	Significant	Obioma Ugboaja
Evergy Missouri West Inc.	BBB+	Stable	bbb	Strong	Significant	Shiny A Rony
Ontario Power Generation Inc.	BBB+	Stable	bb+	Strong	Significant	Mayur Deval
Otter Tail Power Co.	BBB+	Stable	bbb+	Strong	Significant	Ruchi Agrawal
Sempra	BBB+	Stable	bbb+	Strong	Significant	Obioma Ugboaja
Versant Power	BBB+	Stable	bbb+	Strong	Significant	Ruchi Agrawal
Southern Power Co.	BBB+	Stable	bbb-	Satisfactory	Significant	Shiny A Rony
Aquarion Co.	BBB+	Developing	bbb	Excellent	Aggressive	Ruchi Agrawal
AEP Transmission Co. LLC	BBB+	Negative	a+	Excellent	Intermediate	Daria Babitsch
Indiana Gas Co. Inc.	BBB+	Negative	a	Excellent	Intermediate	Shiny A Rony
American Electric Power Co. Inc.	BBB+	Negative	bbb+	Excellent	Significant	Gabe Grosberg

Issuer ranking: North American regulated utility companies (cont.)

Company	Issuer credit rating	Outlook	Stand-alone credit profile	Business risk profile	Financial risk profile	Primary analyst
Appalachian Power Co.	BBB+	Negative	a-	Excellent	Significant	Daria Babitsch
CenterPoint Energy Houston Electric LLC	BBB+	Negative	a	Excellent	Significant	William Hernandez
CenterPoint Energy Resources Corp.	BBB+	Negative	a-	Excellent	Significant	William Hernandez
Indiana Michigan Power Co.	BBB+	Negative	a-	Excellent	Significant	Daria Babitsch
Montana-Dakota Utilities Co.	BBB+	Negative	bbb+	Excellent	Significant	William Hernandez
Ohio Power Co.	BBB+	Negative	a-	Excellent	Significant	Daria Babitsch
Southern Indiana Gas & Electric Co.	BBB+	Negative	a-	Excellent	Significant	Shiny A Rony
Southwestern Electric Power Co.	BBB+	Negative	bbb+	Excellent	Significant	Daria Babitsch
Tampa Electric Co.	BBB+	Negative	a	Excellent	Significant	Mayur Deval
Xcel Energy Inc.	BBB+	Negative	bbb+	Excellent	Significant	William Hernandez
AEP Texas Inc.	BBB+	Negative	bbb	Excellent	Aggressive	Daria Babitsch
CenterPoint Energy Inc.	BBB+	Negative	bbb+	Excellent	Aggressive	William Hernandez
Central Hudson Gas & Electric Corp.	BBB+	Negative	bbb	Excellent	Aggressive	Mayur Deval
Caribbean Utilities Co. Ltd.	BBB+	Negative	bbb	Strong	Significant	Mayur Deval
Maritime Electric Co. Ltd.	BBB+	Negative	bbb	Strong	Significant	Mayur Deval
PacifiCorp	BBB+	Negative	bb+	Strong	Significant	Sloan Millman, CFA, FRM
Public Service Co. of Oklahoma	BBB+	Negative	bbb	Strong	Significant	Daria Babitsch
FirstEnergy Corp.	BBB	Positive	bbb	Excellent	Significant	Sloan Millman, CFA, FRM
Southwest Gas Corp.	BBB	Positive	a-	Excellent	Significant	Mayur Deval
Cleveland Electric Illuminating Co.	BBB	Positive	bbb	Excellent	Aggressive	Sloan Millman, CFA, FRM
Jersey Central Power & Light Co.	BBB	Positive	bbb	Strong	Significant	Sloan Millman, CFA, FRM
Cleco Corporate Holdings LLC	BBB	Stable	bbb+	Excellent	Significant	Shiny A Rony

Issuer ranking: North American regulated utility companies (cont.)

Company	Issuer credit rating	Outlook	Stand-alone credit profile	Business risk profile	Financial risk profile	Primary analyst
Duquesne Light Holdings Inc.	BBB	Stable	bbb	Excellent	Significant	Sloan Millman, CFA, FRM
Indianapolis Power & Light Co.	BBB	Stable	a-	Excellent	Significant	Omar El Gamal, CFA
Puget Sound Energy Inc.	BBB	Stable	bbb+	Excellent	Significant	William Hernandez
IPALCO Enterprises Inc.	BBB	Stable	bbb	Excellent	Aggressive	Omar El Gamal, CFA
Algonquin Power & Utilities Corp.	BBB	Stable	bbb	Strong	Significant	Omar El Gamal, CFA
Edison International	BBB	Stable	bbb	Strong	Significant	Obioma Ugboaja
Empire District Electric Co. (The)	BBB	Stable	bbb	Strong	Significant	Omar El Gamal, CFA
IDACORP Inc.	BBB	Stable	bbb	Strong	Significant	Beverly R Gantt
Idaho Power Co.	BBB	Stable	bbb	Strong	Significant	Beverly R Gantt
Monongahela Power Co.	BBB	Stable	bbb	Strong	Significant	Sloan Millman, CFA, FRM
NorthWestern Corp.	BBB	Stable	bbb	Strong	Significant	Mayur Deval
NorthWestern Energy Group Inc.	BBB	Stable	bbb	Strong	Significant	Mayur Deval
NorthWestern Energy Public Service Corp.	BBB	Stable	bbb	Strong	Significant	Mayur Deval
Potomac Edison Co.	BBB	Stable	bbb	Strong	Significant	Sloan Millman, CFA, FRM
Public Service Co. of New Mexico	BBB	Stable	bbb	Strong	Significant	Omar El Gamal, CFA
Southern California Edison Co.	BBB	Stable	bbb	Strong	Significant	Obioma Ugboaja
TXNM Energy Inc.	BBB	Stable	bbb	Strong	Significant	Omar El Gamal, CFA
Otter Tail Corp.	BBB	Stable	bbb	Satisfactory	Intermediate	Ruchi Agrawal
National Grid Generation LLC	BBB	Stable	bbb-	Fair	Intermediate	Obioma Ugboaja
SEMCO Energy Inc.	BBB	Negative	a-	Excellent	Significant	Ruchi Agrawal
Emera Inc.	BBB	Negative	bbb	Excellent	Aggressive	Mayur Deval
ALLETE Inc.	BBB	Negative	bbb	Strong	Significant	William Hernandez
Avista Corp.	BBB	Negative	bbb	Strong	Significant	Ruchi Agrawal

Issuer ranking: North American regulated utility companies (cont.)

Company	Issuer credit rating	Outlook	Stand-alone credit profile	Business risk profile	Financial risk profile	Primary analyst
Southwestern Public Service Co.	BBB	Negative	bbb	Strong	Significant	William Hernandez
Cascade Natural Gas Corp.	BBB	Negative	bb+	Strong	Aggressive	William Hernandez
Kentucky Power Co.	BBB	Negative	bbb-	Strong	Aggressive	Daria Babitsch
MDU Resources Group Inc.	BBB	Negative	bbb	Satisfactory	Significant	William Hernandez
Southwest Gas Holdings Inc.	BBB-	Positive	bbb-	Satisfactory	Significant	Matthew L O'Neill
CEHI LLC	BBB-	Positive	bb	Fair	Significant	William Hernandez
Puget Energy Inc.	BBB-	Stable	bbb+	Excellent	Significant	William Hernandez
ENMAX Corp.	BBB-	Stable	bbb-	Strong	Significant	Ruchi Agrawal
Allegheny Generating Co.	BBB-	Stable	bb+	Satisfactory	Intermediate	Sloan Millman, CFA, FRM
WGL Holdings Inc.	BBB-	Negative	a-	Excellent	Significant	Ruchi Agrawal
AltaGas Ltd.	BBB-	Negative	bbb-	Strong	Aggressive	Ruchi Agrawal
Nova Scotia Power Inc.	BBB-	Negative	bb+	Strong	Aggressive	Mayur Deval
Fortis TCI Ltd.	BBB-	Negative	bb+	Satisfactory	Significant	Mayur Deval
System Energy Resources Inc.	BB+	Positive	bb	Satisfactory	Intermediate	Omar El Gamal, CFA
Entergy New Orleans LLC	BB	Stable	bb	Satisfactory	Significant	Omar El Gamal, CFA
Pacific Gas & Electric Co.	BB	Stable	bb	Satisfactory	Significant	Daria Babitsch
PG&E Corp.	BB	Stable	bb	Satisfactory	Significant	Gerrit W Jepsen, CFA
Dayton Power & Light Co. (d/b/a AES Ohio)	BB	Stable	bbb-	Strong	Aggressive	Sloan Millman, CFA, FRM
DPL Inc.	BB	Stable	bb-	Strong	Highly Leveraged	Sloan Millman, CFA, FRM
Centuri Group Inc.	B+	Developing	b+	Weak	Aggressive	Mayur Deval
Hawaiian Electric Co. Inc.	B-	WatchNeg	b-	Fair	Aggressive	Ruchi Agrawal
Hawaiian Electric Industries Inc.	B-	WatchNeg	b-	Fair	Aggressive	Ruchi Agrawal

This report does not constitute a rating action.

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