



# North American Regulated Utilities

AGA Conference May 2024 Investor Presentation

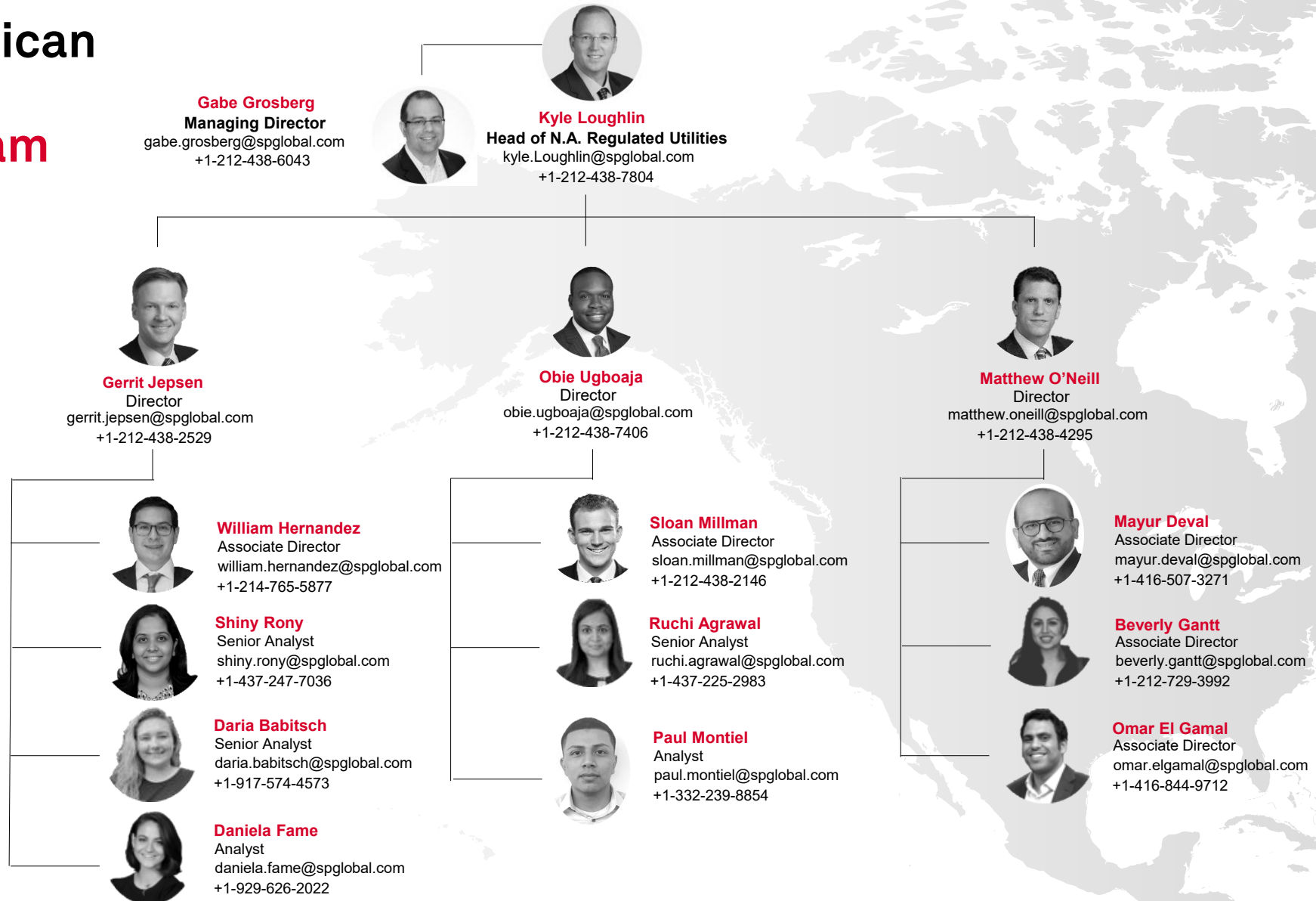
**S&P Global**  
Ratings

Gabe Grosberg

Managing Director NA Regulated  
Utilities

*This report does not constitute a rating action*

# North American Regulated Utilities Team



# Recent Publications

The Rationale Behind U.S. Utility Securitization And Reasons For Recent Growth



Plugged In: How EVs Supercharge Growth For North America's Investor-Owned Electric Regulated Utilities



A Closer Look At The Three Major California Investor-Owned Electric Utilities Amid 2023 Wildfire Season



Credit FAQ: What's Behind Our Recent Actions On Investor-Owned Utilities In Connecticut?



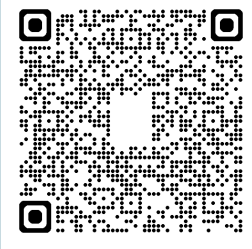
Record CapEx Fuels Growth Along With Credit Risk For North American Investor-Owned Utilities



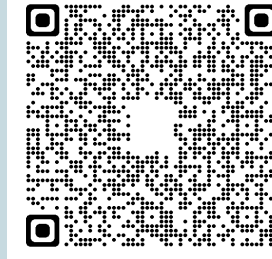
North American Electric, Gas, And Water Regulated Utilities, Strongest To Weakest



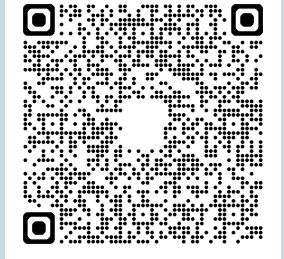
Rising Risks: Outlook For North American Investor-Owned Regulated Utilities Weakens



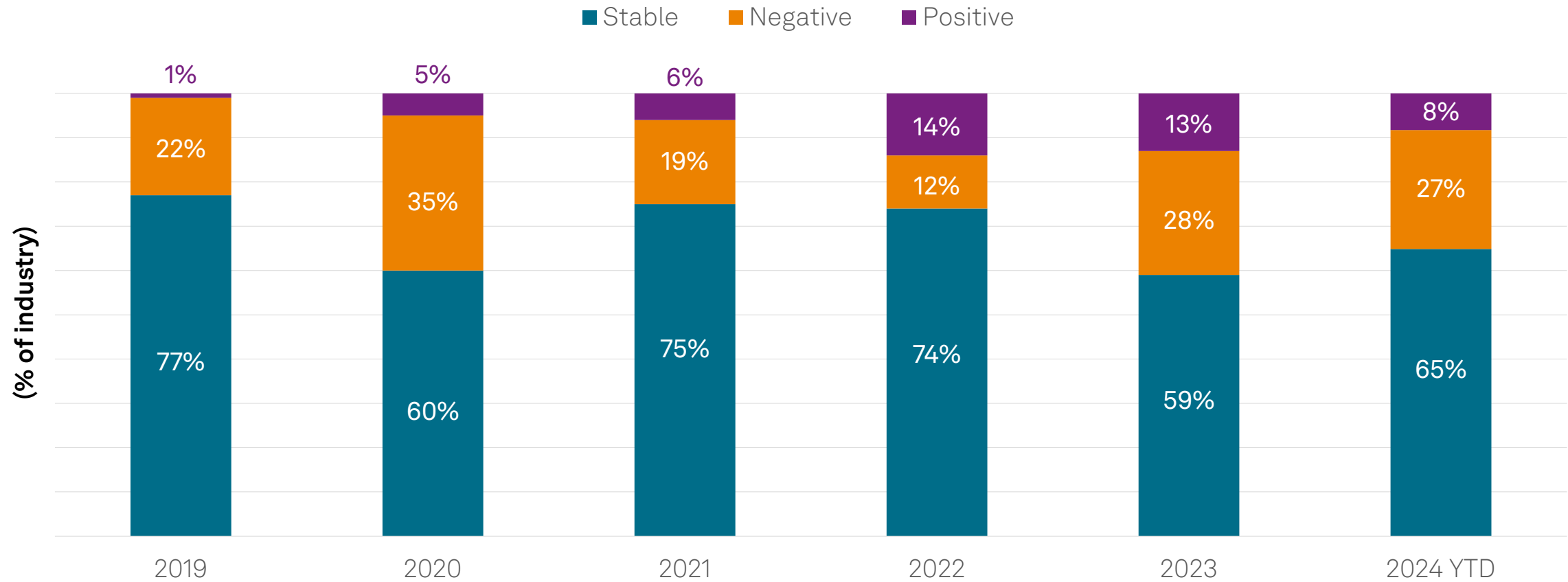
A Storm Is Brewing: Extreme Weather Events Pressure North American Utilities' Credit Quality



North American Utility Regulatory Jurisdictions Update: Ontario Remains Unchanged, Notable Developments Elsewhere

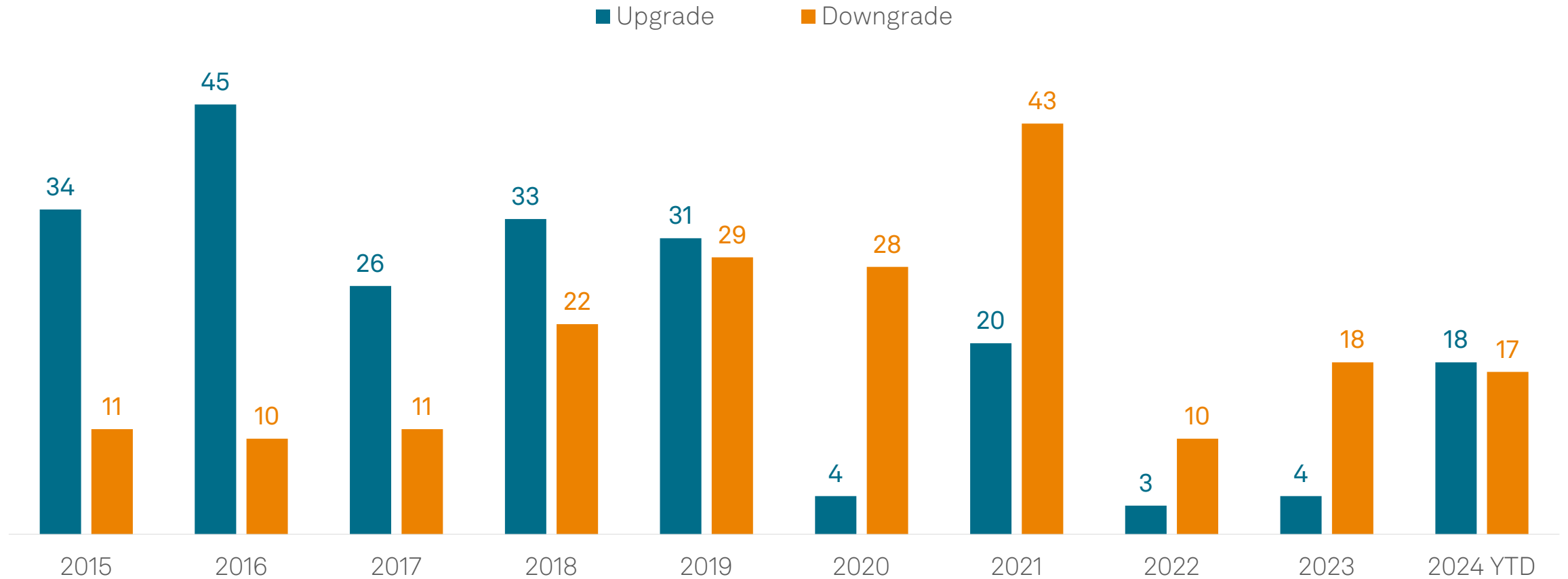


# NA Regulated Utilities | Industry Outlook



Annual outlook is as of year-end. YTD—Year to date is as of May 6, 2024. Source: S&P Global Ratings.

# NA Regulated Utilities | Upgrades And Downgrades

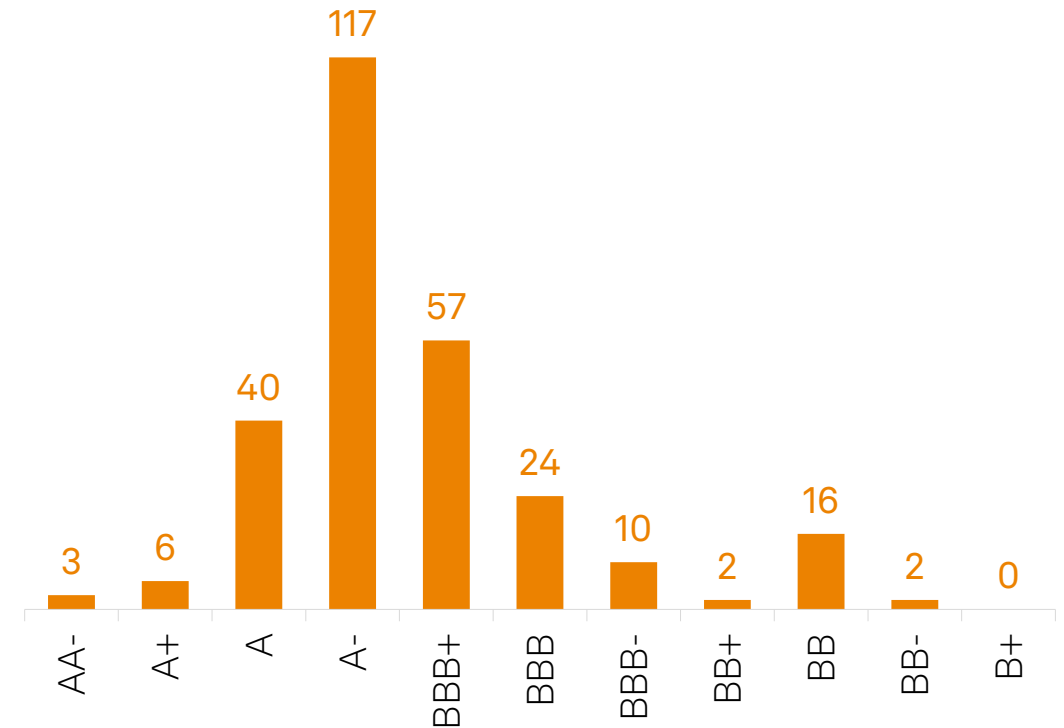
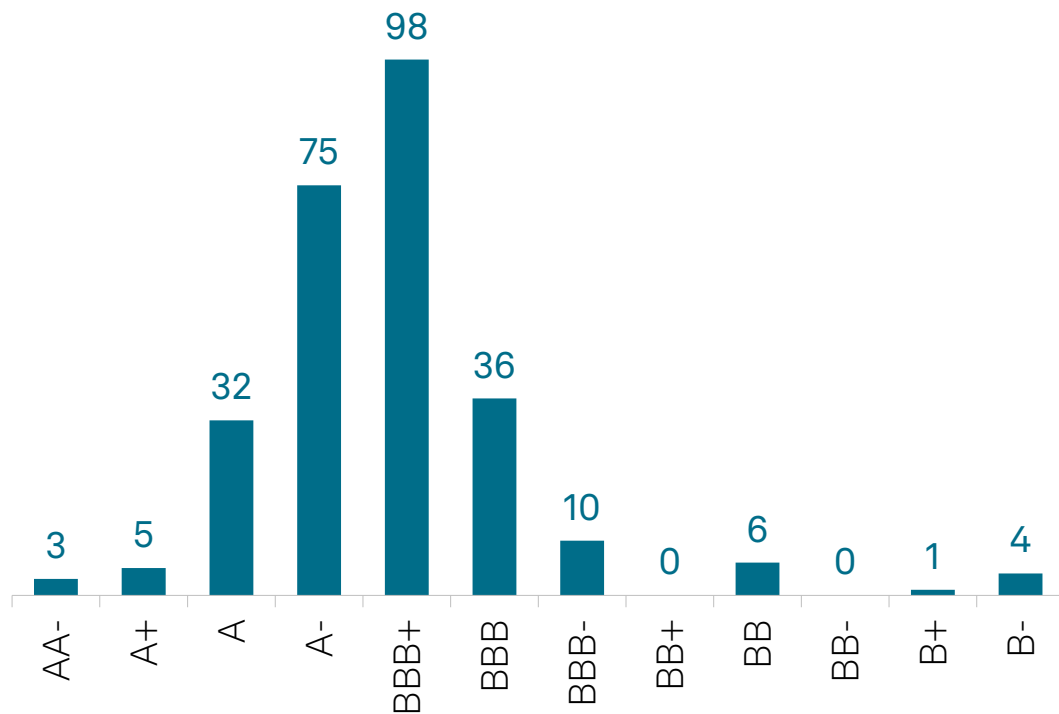


YTD—Year to date is as of May 6, 2024. Source: S&P Global Ratings.

# NA Regulated Utilities Ratings Distribution | Credit Quality Has Weakened

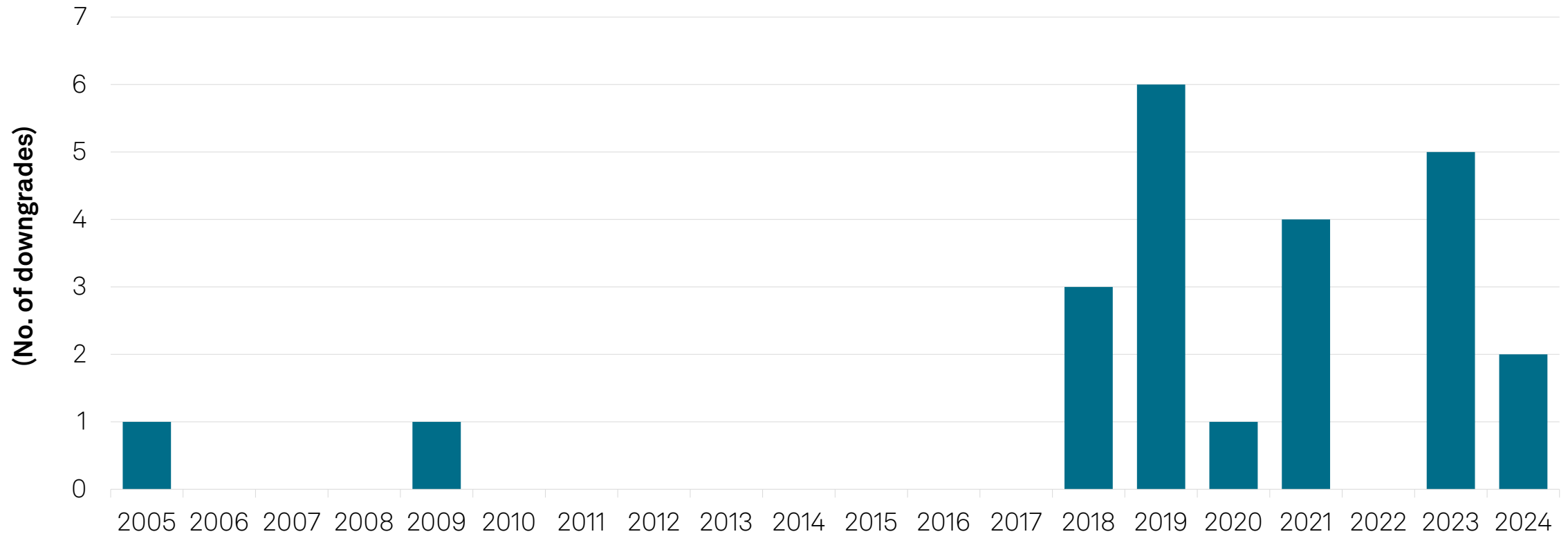
YTD 2024

YE 2020



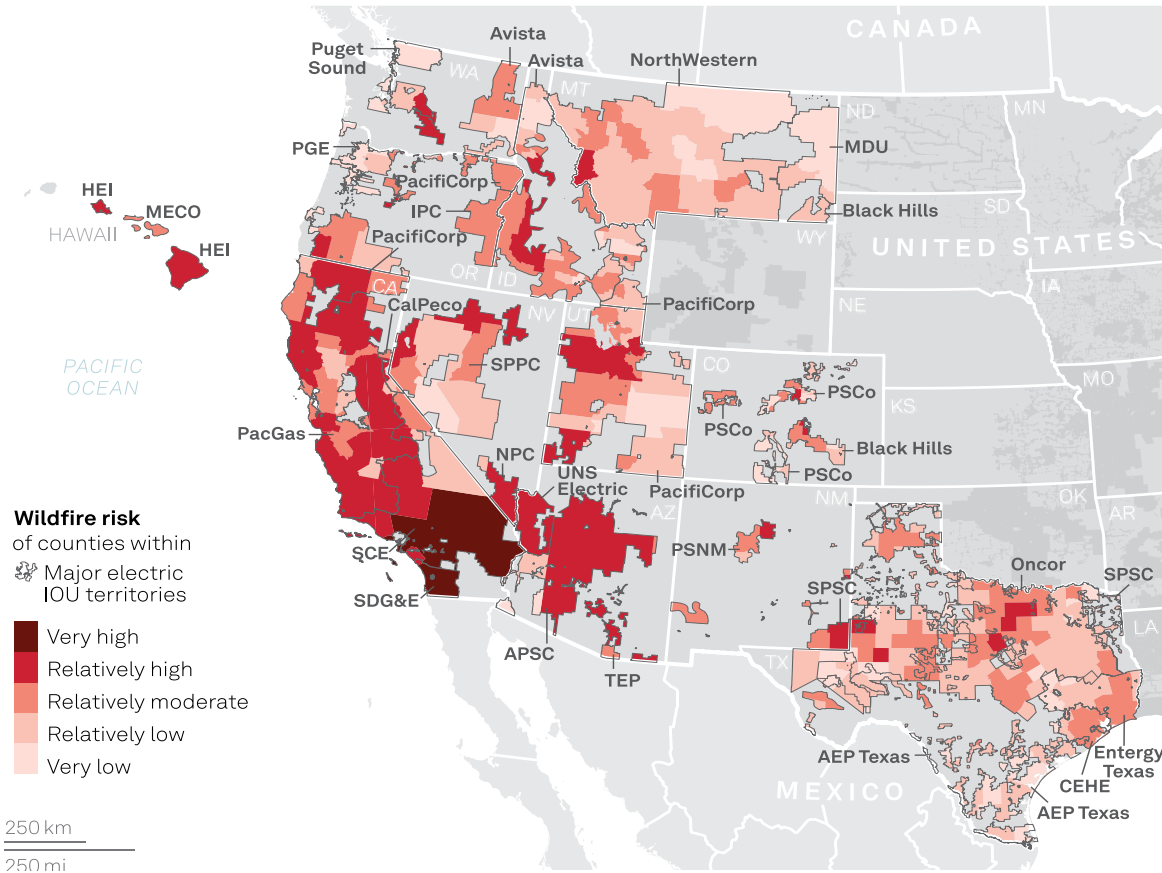
YTD—Year to date is as of May 6, 2024. YE—Year end. Source: S&P Global Ratings.

# NA Regulated Utilities | Downgrades Attributed To Physical Risks

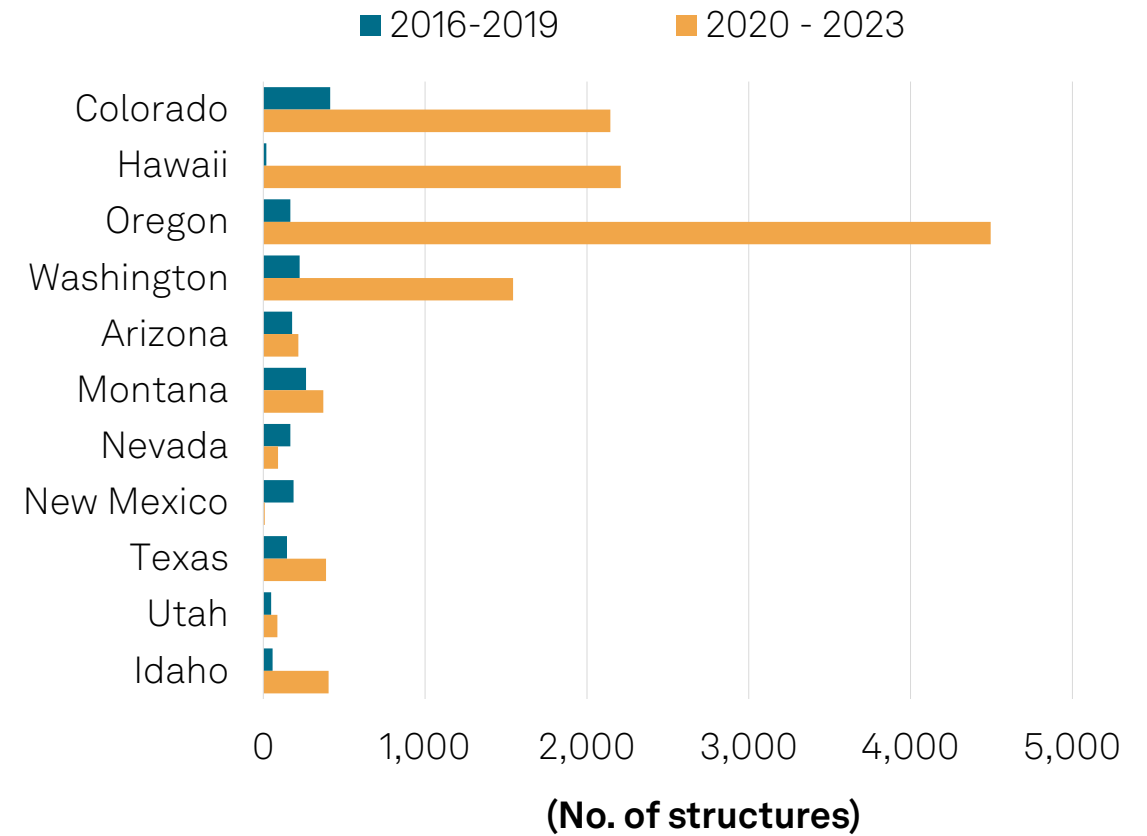


As of May 6, 2024. Source: S&P Global Ratings.

# NA Regulated Utilities | Wildfire Risk Has Increased



## Structures damaged or destroyed Western states



Sources: Company documents. Federal Emergency Management Agency (FEMA). S&P Global Market Intelligence.



# NA Regulated Utilities | Wildfire Mitigation and Recovery

☑ Enacted ☒ Not enacted

Utility name	Undergrounding	Covered conductor	Poles enhancements/replacements	Public safety power shutoff programs (PSPS)	Vegetation management	Periodic inspections	Situational awareness and forecasting	Aerial surveillance/HD cameras
American States Water Company (BVESI)	☑	☑	☑	☑	☑	☑	☑	☑
<b>Detail:</b> Data governance, ignition detection sensors and systems, fault monitoring								
FortisAlberta Inc.	☒	☒	☑	☒	☑	☑	☒	☑
<b>Detail:</b> Insulator washing, porcelain switch replacement								
Idaho Power Company	☑	☑*	☑	☑	☑	☑	☑	☑*
<b>Detail:</b> Satellite imagery, shared stewardship								
Liberty Utilities (CalPeco Electric) LLC	☑	☑	☑	☑	☑	☑	☑	☑
<b>Detail:</b> Wildfire, outreach, communication, stakeholder communication, plans to sponsor 8 cameras to the ALERT Wildfire Network in 2023								
Los Angeles Dept. of Water and Power	☒	☑	☑	☒	☑	☑	☑	☑
<b>Detail:</b> LAFD notifies LADWP of NWS Red Flag Warnings, block reclosers in certain situations								
NorthWestern Corporation	☒	☒	☑	☒	☑	☑	☑	☑
NV Energy Inc. (NPC and SPPC)	☑	☑	☑	☑	☑	☑	☑	☑
<b>Detail:</b> AI, FTM relay settings, installed 65 weather stations and 11 cameras								
PacGas	☑	☑	☑	☑	☑	☑	☑	☑
<b>Detail:</b> EPSS/downed conductor detection, early fault detection sensors, partial voltage force out, satellite IR imaging, HD video, land-based IR cameras								
PacifiCorp	☑	☑	☑	☑	☑	☑	☑	☑*
<b>Detail:</b> Public safety partner portal, AI and machine learning, downed conductor detection, early fault detection, installed 454 weather stations and 25 cameras								
Public Service Company of Colorado	☒	☑	☑	☒	☑	☑	☑	☑
<b>Detail:</b> AI and machine learning, early fault detection, open phase detection, unmanned aerial system and LiDAR-equipped helicopter inspection								
Sacramento Municipal Utility District	☑	☑	☑	☑	☑	☑	☑	☑
<b>Detail:</b> Disables reclosers during wildfire season, installed 14 weather stations								
SDG&E	☑	☑	☑	☑	☑	☑	☑	☑
<b>Detail:</b> AI and machine learning, early fault detection, public safety partner portal, weather stations, smoke plume modeling, satellite-based remote sensing cameras, AI smoke detection algorithm								
Southern California Edison Co.	☑	☑	☑	☑	☑	☑	☑	☑
<b>Detail:</b> AI and machine learning, early fault detection, open phase detection, HD cameras, aerial suppression, fast curve relay systems, REFCL technology								

Sources: Company documents. As of October 2023.

Rate payers

Insurance

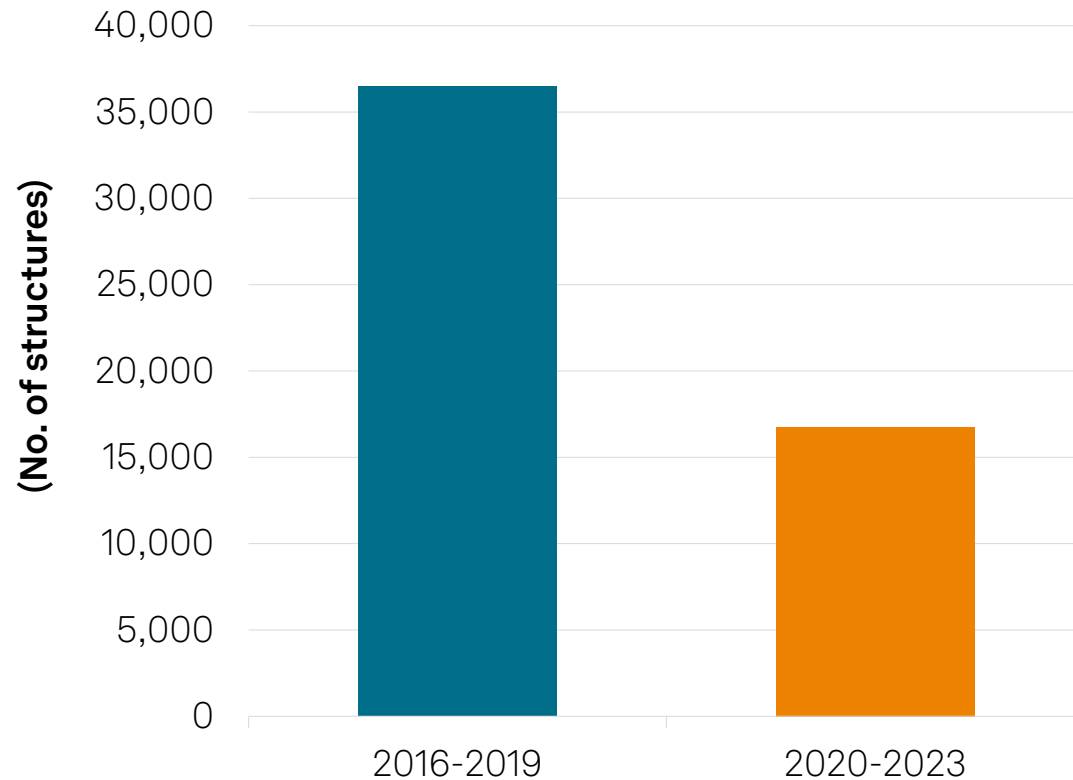
Self-insurance

Wildfire fund

Securitization

# NA Regulated Utilities | Wildfire Mitigation Efforts

## Structures damaged or destroyed California



Sources: Company documents.

## Recent updates

**S&P Global Ratings** RatingsDirect®

Research Update:

**PG&E Corp. Upgraded To 'BB' On Improving Risk Management; Debt Rating Raised To 'BB'; Outlook Stable**

February 23, 2024

**Rating Action Overview**

- On Feb. 22, 2024, PG&E Corp. concluded fiscal 2023 without causing a catastrophic wildfire. We believe this improvement reflects management's ongoing implementation of its wildfire mitigation efforts that is reducing the company's wildfire risks.
- As such, we raised our issuer credit rating on PG&E and subsidiary Pacific Gas & Electric Co. (Pac Gas) to 'BB' from 'BB-'. We also raised our issue-level ratings on PG&E's senior secured debt rating to 'BB' from 'BB-' and Pac Gas' senior secured debt on its first-mortgage bonds (FMBs) to 'BB' from 'BB-'.
- The stable outlooks on PG&E and Pac Gas reflect our expectation that consolidated funds from operations (FFO) to debt will improve to 14%-20% through 2026 and the company will not be the cause of a catastrophic wildfire.

**Rating Action Rationale**

We revised upward our assessment of PG&E's and Pac Gas' management and governance (M&G) to neutral from negative. While the company has a history of regulatory and legal infractions beyond isolated episodes that we assessed as outside of the industry norms, we believe management's more recent effective implementation of its longer-term wildfire mitigation plans improves its risk management and reduces its wildfire exposure. Management has implemented public safety power shutoffs, enhanced powerline safety settings, enhanced vegetation management, improved situational awareness to identify wildfires, and installed cover conductors and undergrounded various distribution lines to decrease the likelihood of causing a wildfire.

In addition, it effectively partnered with state agencies to decrease the likelihood of catastrophic wildfires and has a large wildfire fund it can access if it is the cause of a catastrophic wildfire. We view management's successful implementation of these many risk decreasing initiatives as clear

**PRIMARY CREDIT ANALYST**  
Gerit W. Jepsen, CFA  
New York  
+1 212 854 2529  
gerit.jepsen@spglobal.com

**SECONDARY CONTACT**  
Daria Babitsch  
New York  
NY 212-854-4372  
daria.babitsch1@spglobal.com

www.spglobal.com/ratingdirect February 23, 2024 1

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Research Update:

**Edison International And Subsidiary Southern California Edison Ratings Affirmed: Outlooks Stable**

April 22, 2024

**Rating Action Overview**

- Over the past five years, Rosemead, Calif.-based Edison International (Edison), through its main subsidiary Southern California Edison (SCE) has made significant investments and progress on its wildfire mitigation plan (WMP), decreasing its wildfire exposure, despite our expectations for continued severe wildfire conditions within SCE's service territory because of climate change. Furthermore, the company has maintained a valid safety certification and has not yet accessed California's approximate \$21 billion wildfire fund, which we also assess as supportive of credit quality.
- Therefore, we lowered Edison's downgrade and upgrade thresholds.
- We also affirmed our ratings on Edison, including our 'BBB' issuer credit rating, 'A-2' commercial paper rating, 'BBB-' senior unsecured debt issue-level ratings, and 'BB+' ratings for the company's hybrid instruments. We also affirmed our 'BBB' issuer credit and issue-level ratings for Southern California Edison's senior unsecured debt, 'A-2' commercial paper ratings, 'A-' senior secured ratings and 1+ recovery rating, and 'BB+' ratings for the company's hybrid instruments.
- The stable outlooks on Edison and SCE reflect our expectations for steady improvement to consolidated financial measures, effective regulatory risk management, continuous progress in the company's wildfire mitigation practices, and the wildfire fund to remain substantially undrawn. Our base-case forecast for Edison assumes consolidated funds from operations (FFO) to debt of 16%-17%.

**Rating Action Rationale**

We lowered our FFO to debt downgrade and upgrade thresholds for Edison to reflect the company's decreasing business risk. While Edison's service territory experienced several wildfires in recent years, they were not nearly as devastating as the 2017-2018 wildfires. More recent wildfires include the Saddle Ridge Fire (2019) that damaged 107 structures, the Bobcat Fire (2020) that damaged 217 structures, the Coastal Fire (2022) that damaged 31 structures, and the Fairview Fire (2022) that damaged 44 structures. We believe the lower level of damage from these

**PRIMARY CREDIT ANALYST**  
Olivera Igbodje  
New York  
+1 212 438 7406  
oliva.igbodje@spglobal.com

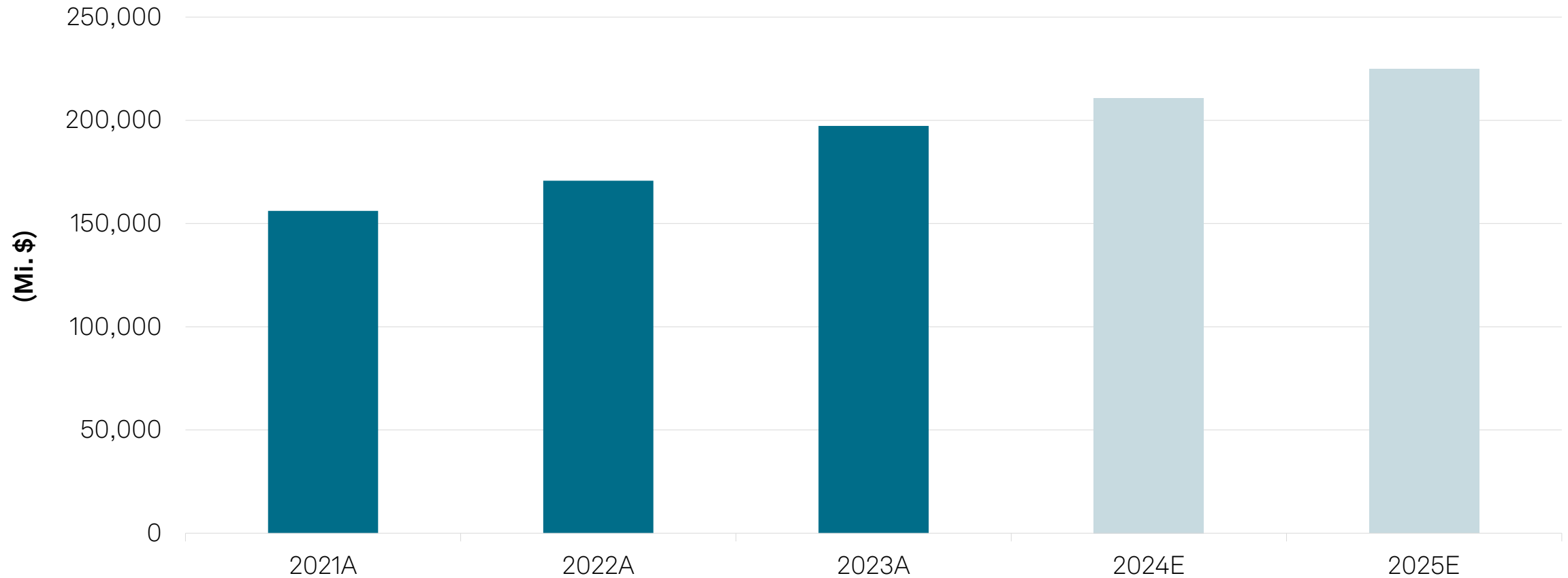
**SECONDARY CONTACT**  
Gabe Greenberg  
New York  
+1 212 438 6043  
gabe.greenberg@spglobal.com

**RESEARCH CONTRIBUTOR**  
Dhananjay Gulwani  
CRISL, Global Analytical Center, an S&P Global Business

**RESEARCH ASSISTANT**  
Paul Mouton  
New York

www.spglobal.com/ratingdirect April 22, 2024 1

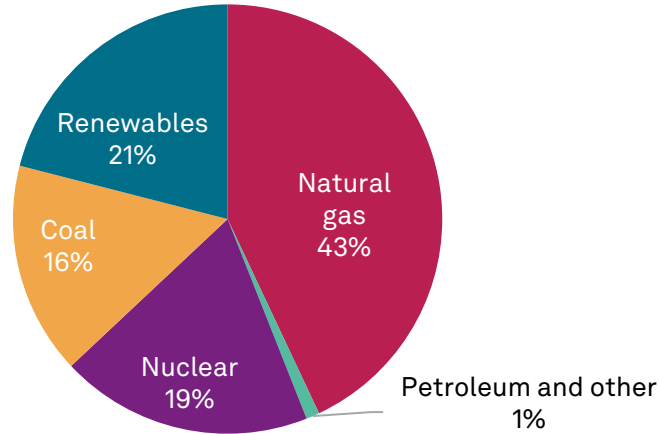
# NA Regulated Utilities | Rising Capital Expenditures



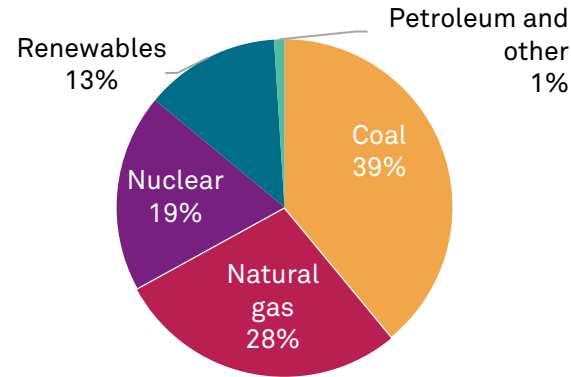
As of May. 06, 2024. A- Actual. E- Estimate. Capital expenditures represent North American investor-owned electric gas, and water utilities. Source: S&P Global Ratings.

# Transformation Of U.S. Generation

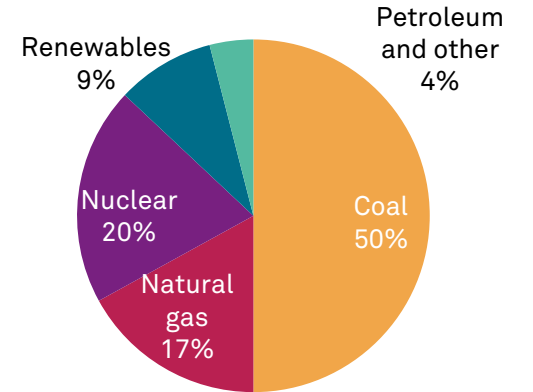
2023



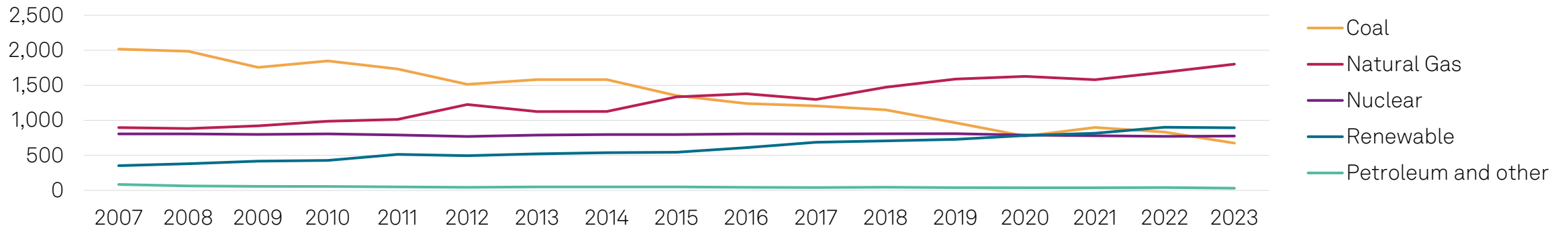
2013



2003

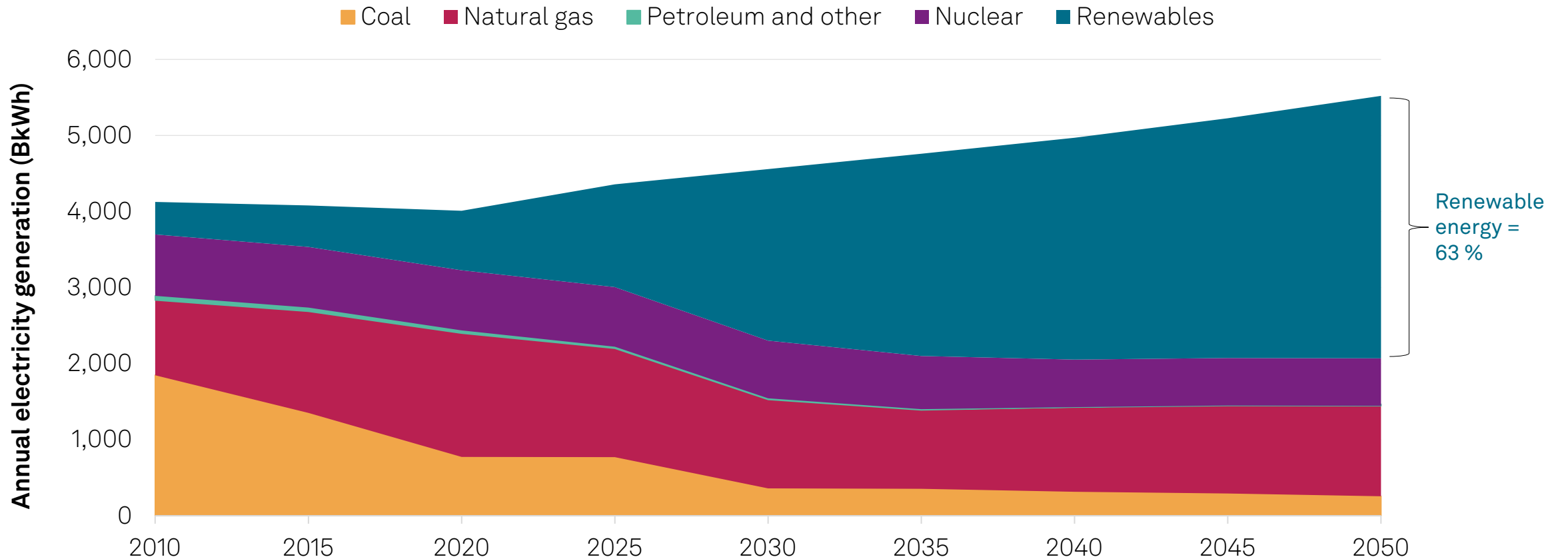


Generation mix 2007-2023 (Bil. Killowatt-hours)



Data as of May. 7, 2024. Source: U.S. Energy Information Administration.

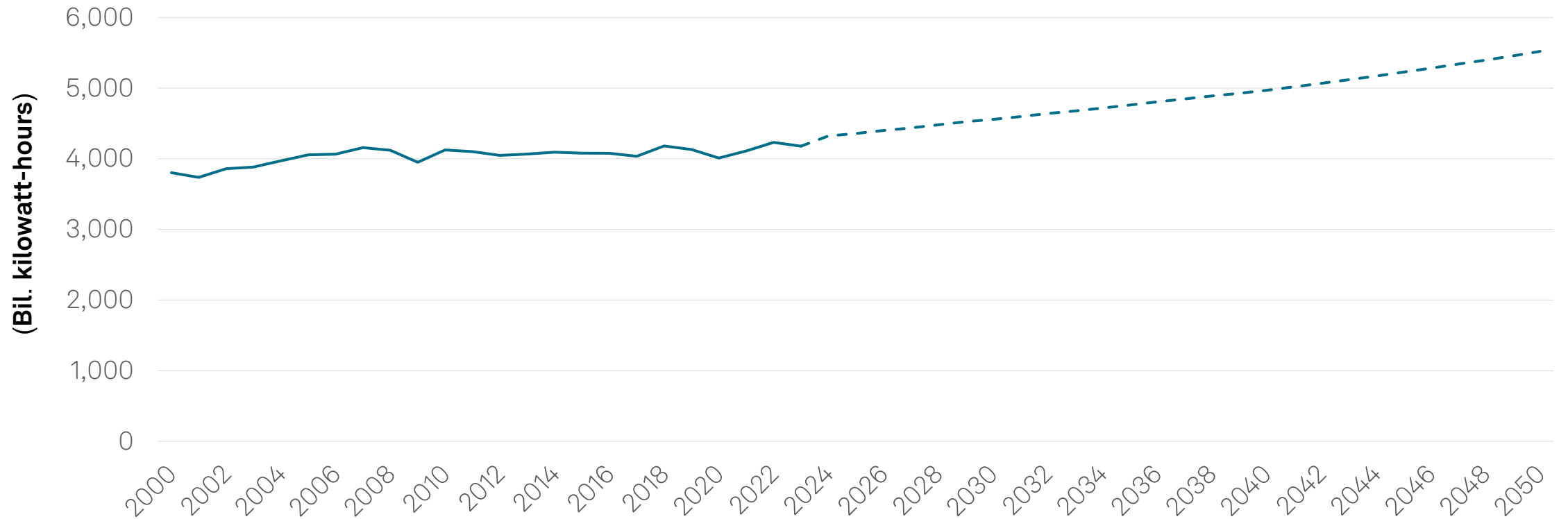
# U.S. Generation Transformation | 2010 – 2050



Data as of May 2024. BkWh—Billion kilowatt-hours. Source: U.S. Energy Information Administration.

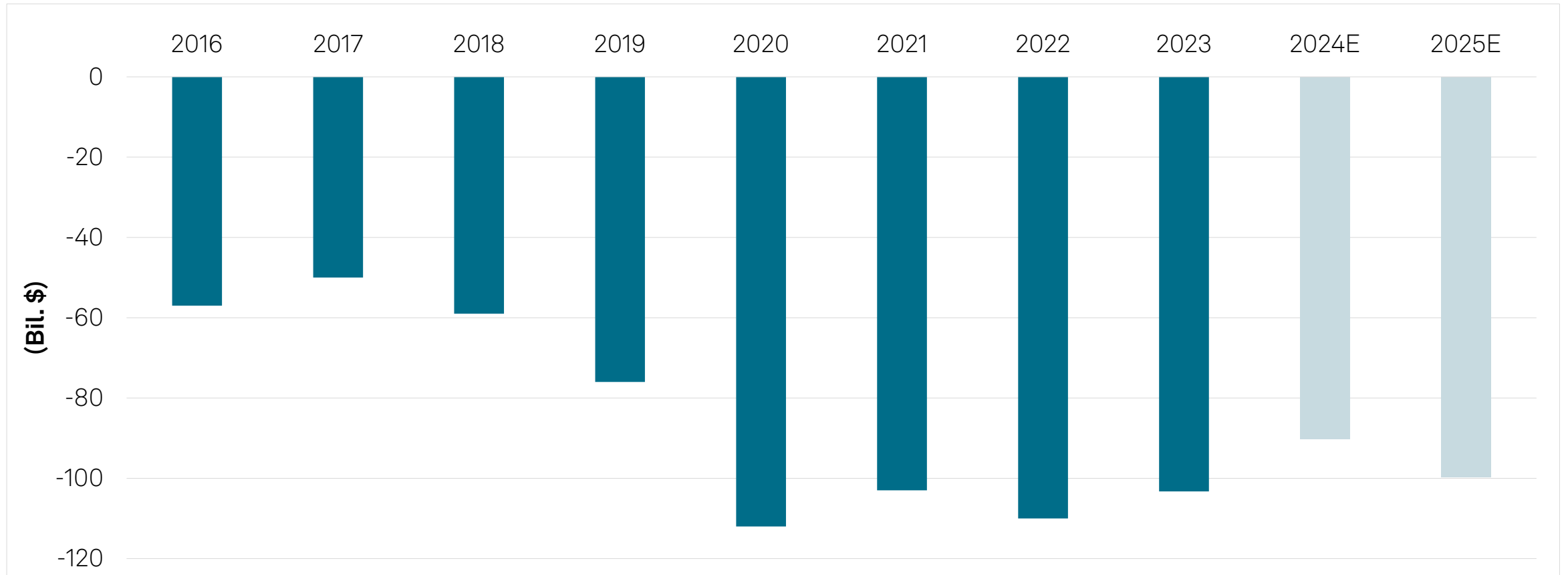
# NA Regulated Utilities | Forecast Electricity Demand

Net electricity generation 2000-2050



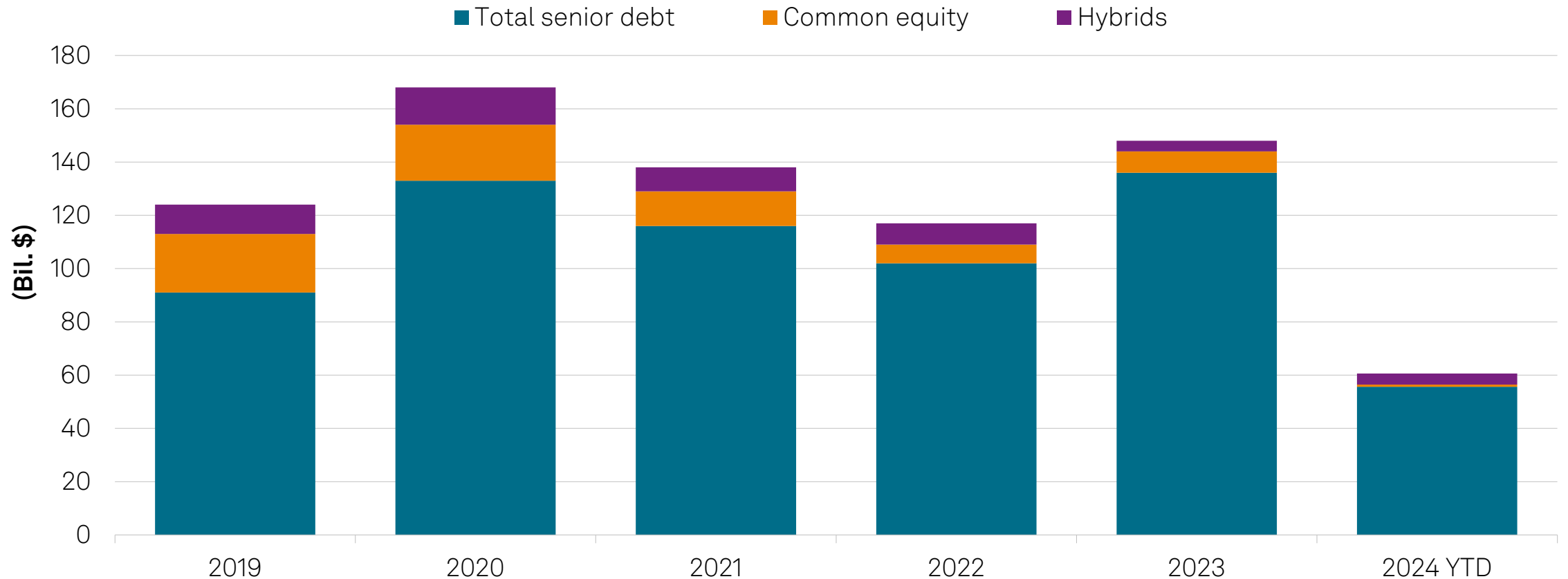
Data as of May. 10, 2024. Source: U.S. Energy Information Administration.

# NA Regulated Utilities | Negative Discretionary Cash Flows



As of May. 06, 2024. E- Estimate. Source: S&P Global Ratings.

# NA Regulated Utilities | Capital Market Issuance

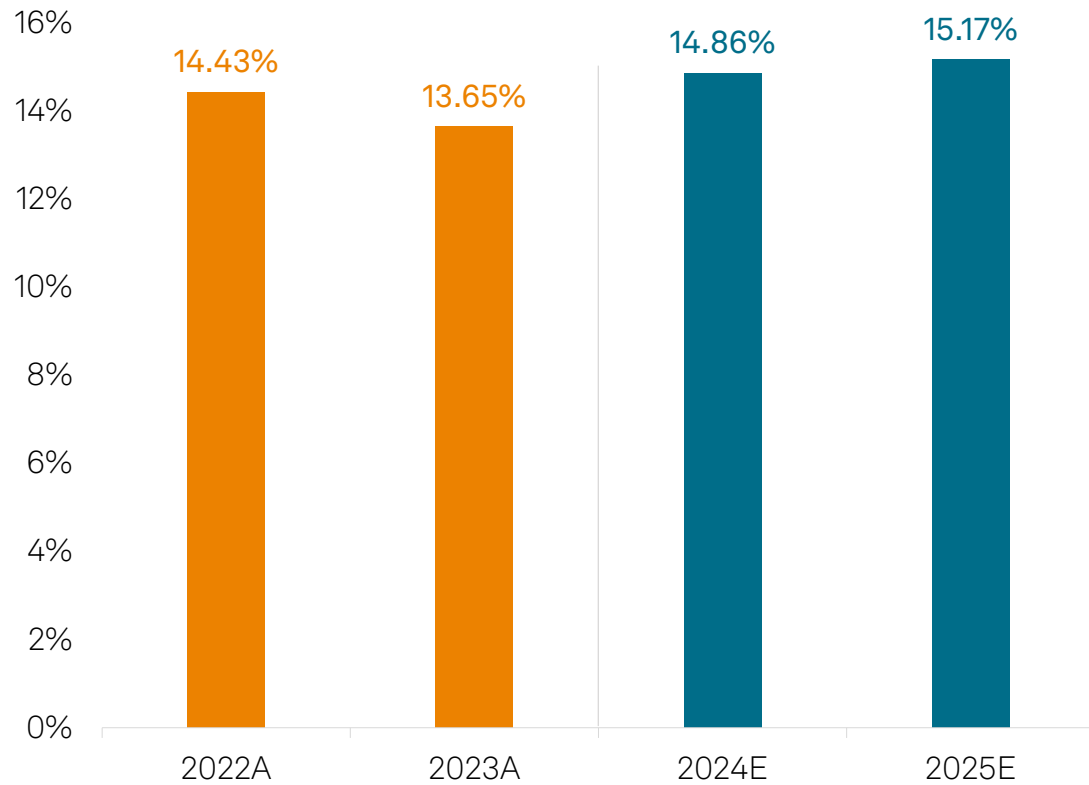


Senior debt includes first-mortgage bonds and senior unsecured. Hybrids includes junior subordinated debt, preferreds, subordinated debt, and equity units. YTD—Year to date as May 6, 2024. Sources: S&P Global Ratings. S&P Market Intelligence.

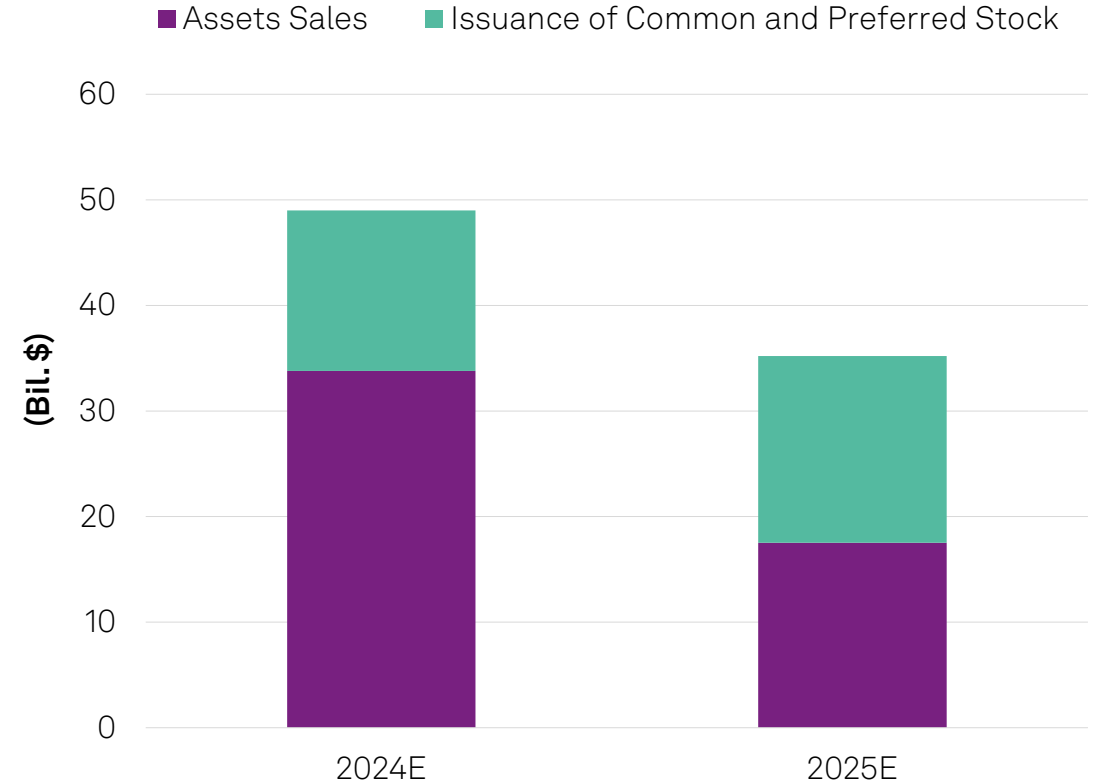


# Maintaining Financial Performance | Predicated On Balanced Funding

## FFO to debt (average)

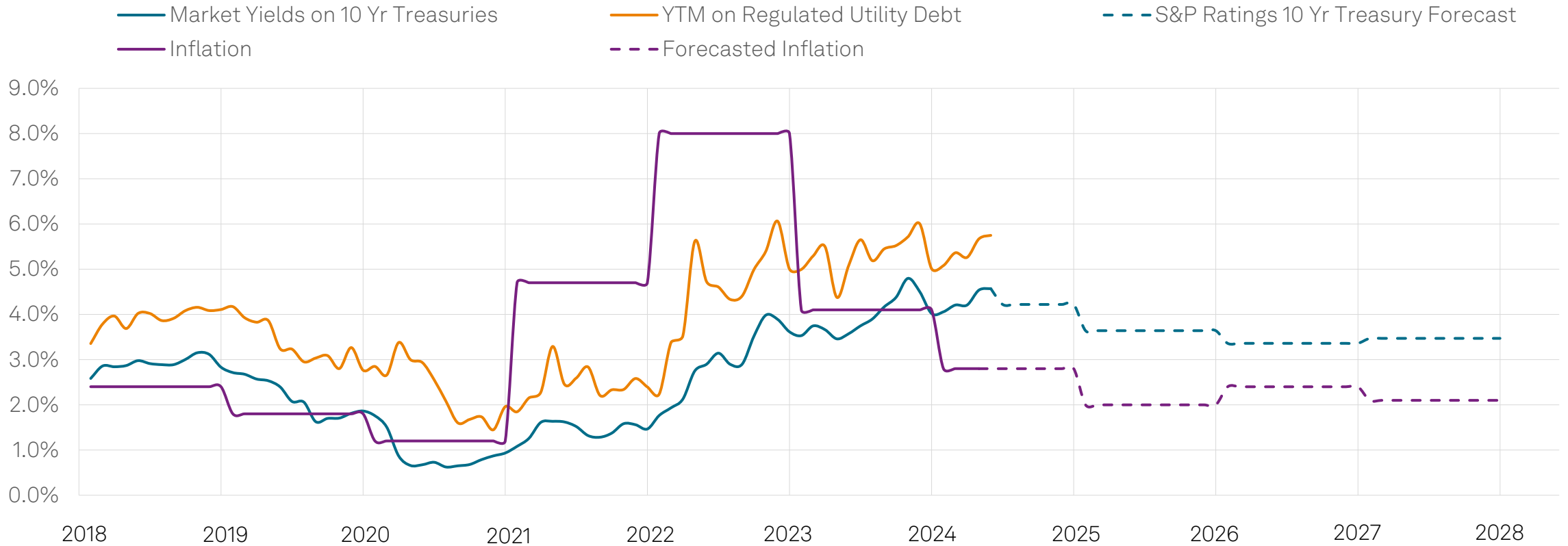


## Asset sales and equity issuance



Data as of May. 6, 2024. FFO— Funds from operations. E—Estimate. Source: S&P Global Ratings

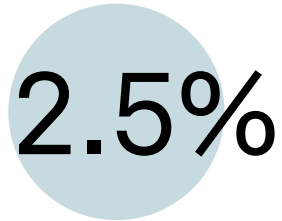
# 10 Year Treasury Yields | Utility Debt Yields | Inflation



Data as of May. 7, 2024. Sources: Federal Reserve Economic Data. Bureau of Economic Analysis. Bureau of Labor Statistics. S&P Capital IQ. S&P Global Ratings: Persistent Above-Target Inflation Will Delay The Start Of Rate Cuts In The U.S.. Economic Outlook U.S. Q2 2024: Heading For An Encore.

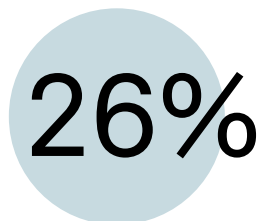
# S&P Global Ratings | Macroeconomic Outlook

GDP will grow



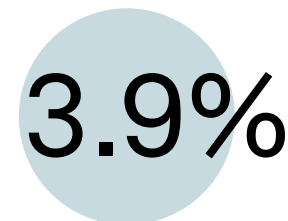
In 2024

Recession risk at



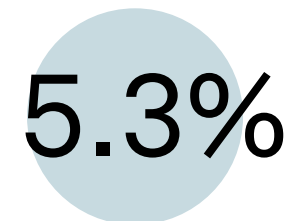
For the next 12 months

Unemployment rate at



In 2024

The Fed funds rate averages about



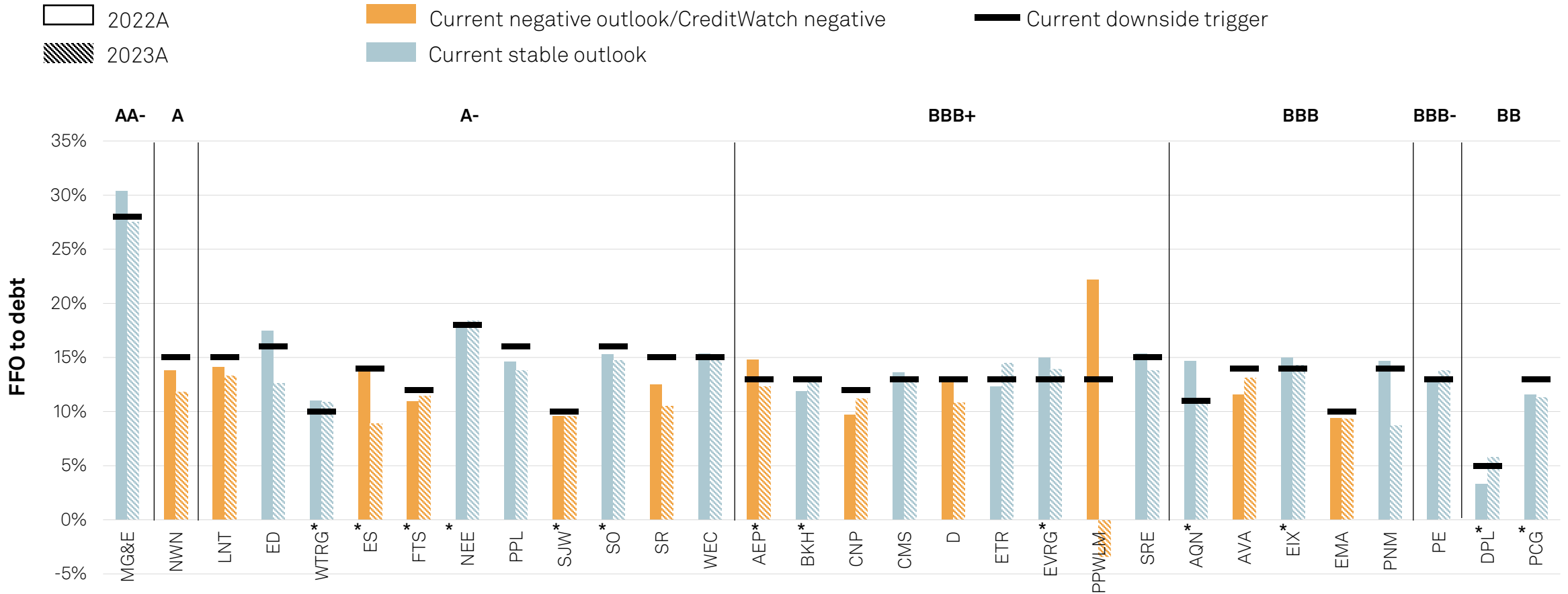
In 2024

## Economic forecast summary – United States

Key indicators	2023	2024f	2025f	2026f	2027f
GDP (Real, YOY%)	2.5	2.5	1.5	1.7	1.9
CPI (Average, YOY%)	4.1	2.8	2.0	2.4	2.1
Unemployment (%)	3.6	3.9	4.2	4.2	3.9
Consumer spending (Real, YOY%)	2.2	2.3	1.9	2.0	2.3
Federal funds rate average (%)	5.0	5.3	4.6	3.3	2.9
10-year Treasury yield (%)	4.0	4.2	3.6	3.4	3.5

As of May. 7, 2024. YOY—Year over year. f—Forecast. Sources: S&P Global Ratings: (1) Persistent Above-Target Inflation Will Delay The Start Of Rate Cuts In The U.S., (2) Economic Outlook U.S. Q2 2024: Heading For An Encore, (3) U.S. Business Cycle Barometer: Recession Risk Moderates, But Growth Is Limited By Potential

# NA Regulated Utilities | Minimal Financial Cushion

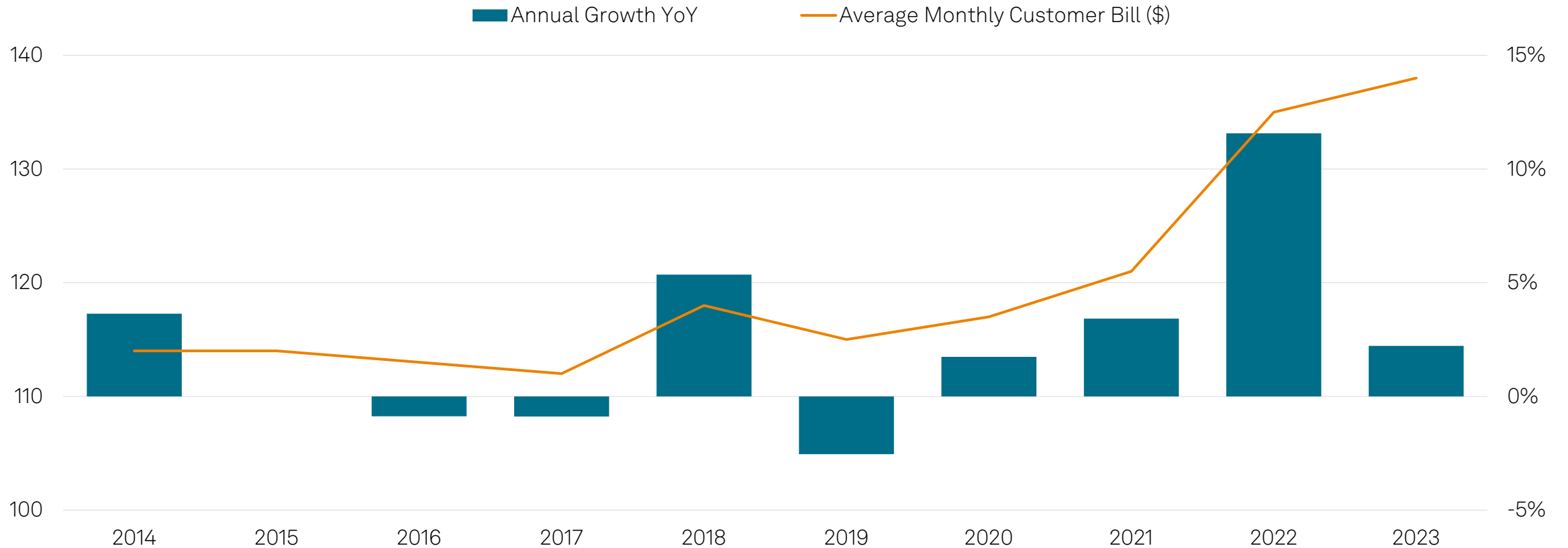


Data as of May. 9, 2024. FFO--Funds from operations. MG&E--Madison Gas & Electric. NWN--Northwest Natural Holding Co. LNT--Alliant Energy Corp. ED--Consolidated Edison Inc. WTRG--Essential Utilities, Inc. ES--Eversource Energy. FTS--Fortis Inc. NEE--NextEra Energy Inc. PPL--PPL Corp. SJW--SJW Group. SO--The Southern Co. SR--Spire Inc. WEC--WEC Energy Group, Inc. AEP--American Electric Power Co, Inc. BKH--Black Hills Corp. CNP--CenterPoint Energy Inc. CMS--CMS Energy Corp. D--Dominion Energy Inc. ETR--Entergy Corp. EVRG--Eversource Energy Inc. PPWLM--PacifiCorp. SRE--Sempra. AQN--Algonquin Power & Utilities Corp. AVA--Avista Corp. EIX--Edison International. EMA--Emera Inc. PNM--PNM Resources, Inc. PE--Puget Energy, Inc. DPL--DPL Inc. PCG--PG&E Corp.

\*Downside trigger was revised since 2022, please refer to the appendix on page 36 for details.

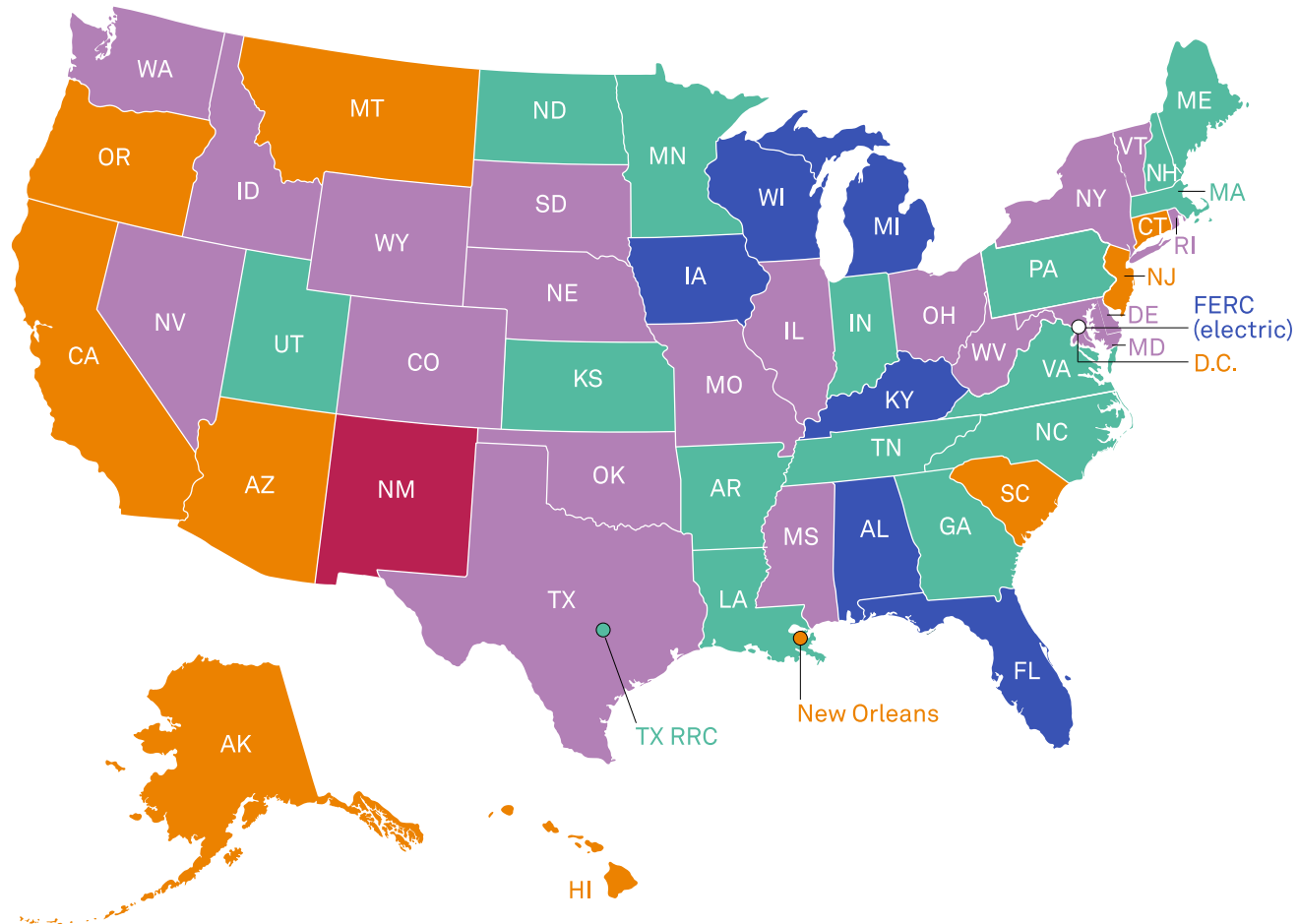
Source: S&P Global Ratings.

# U.S. Monthly Electric Bill For Residential Customers



Source: U.S. Energy Information Administration (EIA), 2023 data is preliminary.

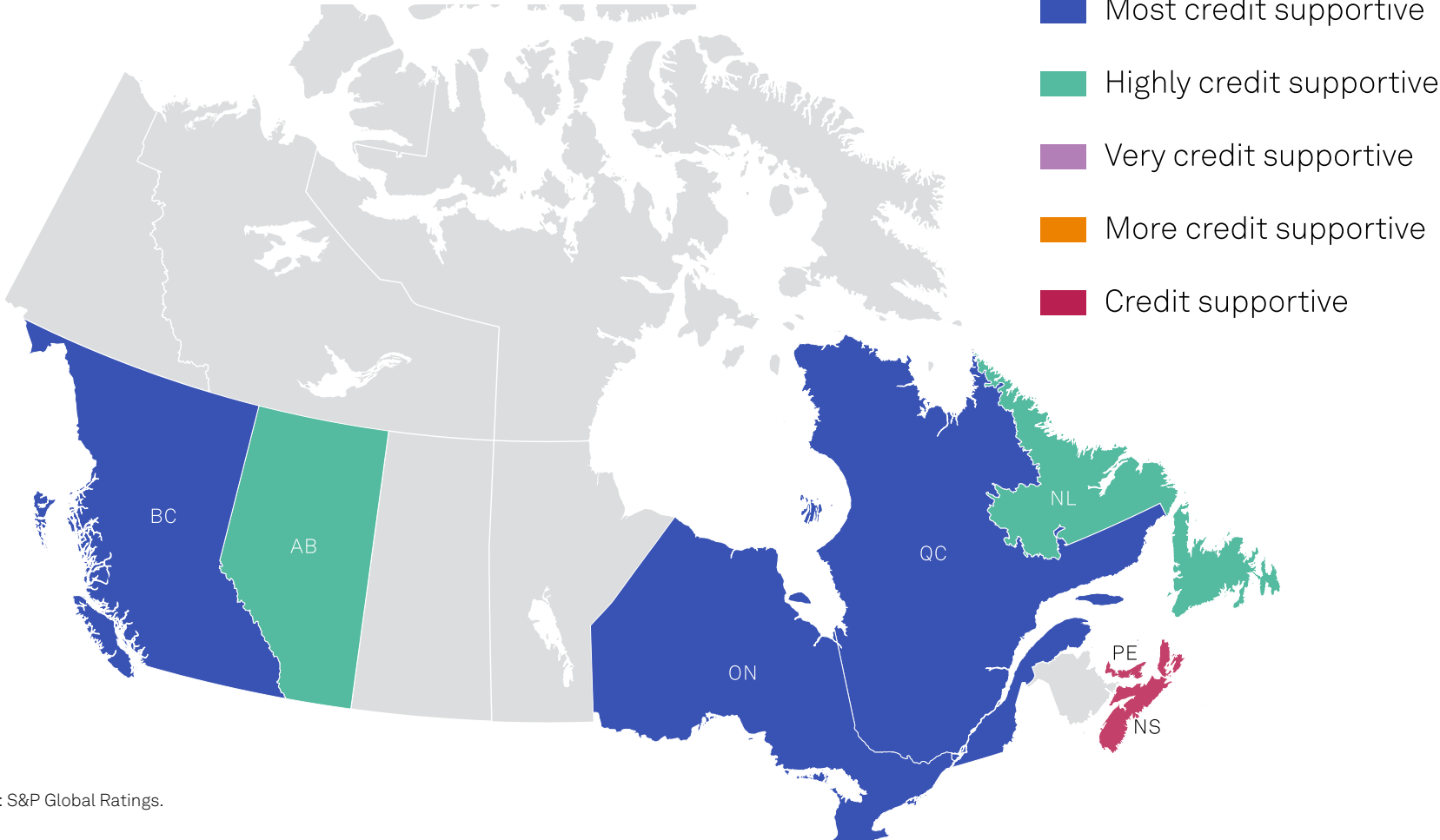
# U.S. Regulatory Jurisdiction Assessment



- Most credit supportive
- Highly credit supportive
- Very credit supportive
- More credit supportive
- Credit supportive

Data as of May 2024. Source: S&P Global Ratings.

# Canada Regulatory Jurisdiction Assessment



Data as of May 2024. Source: S&P Global Ratings.

# Changes To NA Regulated Utility Jurisdictions

## Nova Scotia



- Political interference – undermining regulatory construct; breaching regulator's independence;
- Bill 212 limits nonfuel rate increases to 1.8% through 2024. The bill further limits ROE to 9.25% and caps equity ratio at 40%; and
- The Utilities Act amended to increase the annual utility penalty cap to \$25 million from \$1 million.

Most credit supportive (strong)

Highly credit supportive (strong/adequate)

Very credit supportive (strong/adequate)

More credit supportive (strong/adequate)

**Credit supportive (adequate)**





# Changes To NA Regulated Utility Jurisdictions

## Mississippi



- Post-Kemper regulation allows for timely cost recovery, minimizing regulatory lag and improving the utility's ability to earn their authorized ROE; and
- Continuation of the performance evaluation plan (PEP), mechanisms to recover system reliability costs, future test years, and the jurisdiction's support to build storm reserves shows a very supportive regulatory jurisdiction.

Most credit supportive (strong)

Highly credit supportive (strong/adequate)

**Very credit supportive (strong/adequate)**

More credit supportive (strong/adequate)

Credit supportive (adequate)



# Changes To NA Regulated Utility Jurisdictions

## Oregon



- In 2023, a Multnomah County class action jury verdict against PacifiCorp found the company liable for damages related to four 2020 wildfires;
- The jury found that the company acted in a grossly negligent and reckless manner, awarding the 17 plaintiffs \$4 million in economic damages, \$68 million in noneconomic damages, and \$18 million in punitive damages; and
- The jury also found that a broader absent class affected by the fires could bring claims against the company.

Most credit supportive (strong)

Highly credit supportive (strong/adequate)

Very credit supportive (strong/adequate)

**More credit supportive (strong/adequate)**

Credit supportive (adequate)



# Recent Notable Developments

## Ontario



- Local distribution companies' (LDCs) weakening financial performance due to regulatory lag associated with rising transmission costs and higher wholesale market service charges; and
- Lower than average approved equity layers and average approved ROE.

**Most credit supportive (strong)**

Highly credit supportive (strong/adequate)

Very credit supportive (strong/adequate)

More credit supportive (strong/adequate)

Credit supportive (adequate)

**Toronto Hydro Corporation**

**Alectra Inc.**

**Entegrus Powerlines Inc.**

**Grandbridge Energy Inc.**

**Windsor Canada Utilities Ltd.**

**London Hydro Inc.**

# Recent Notable Developments

## Connecticut



- Senate Bill 7 gives the commission greater latitude in determining whether companies over earn, prohibits the commission from reauthorizing the electric system improvements charge, and allows discretion for the use of decoupling; and
- Recent rate case order materially deviated from our base case.

Most credit supportive (strong)

Highly credit supportive (strong/adequate)

Very credit supportive (strong/adequate)

**More credit supportive (strong/adequate)**

Credit supportive (adequate)

**The United Illuminating Co.**

**Connecticut Light & Power Co**

**Connecticut Natural Gas Corp.**

**Connecticut Water Service Inc.**

**Southern Connecticut Gas Co.**

**Aquarion Co.**

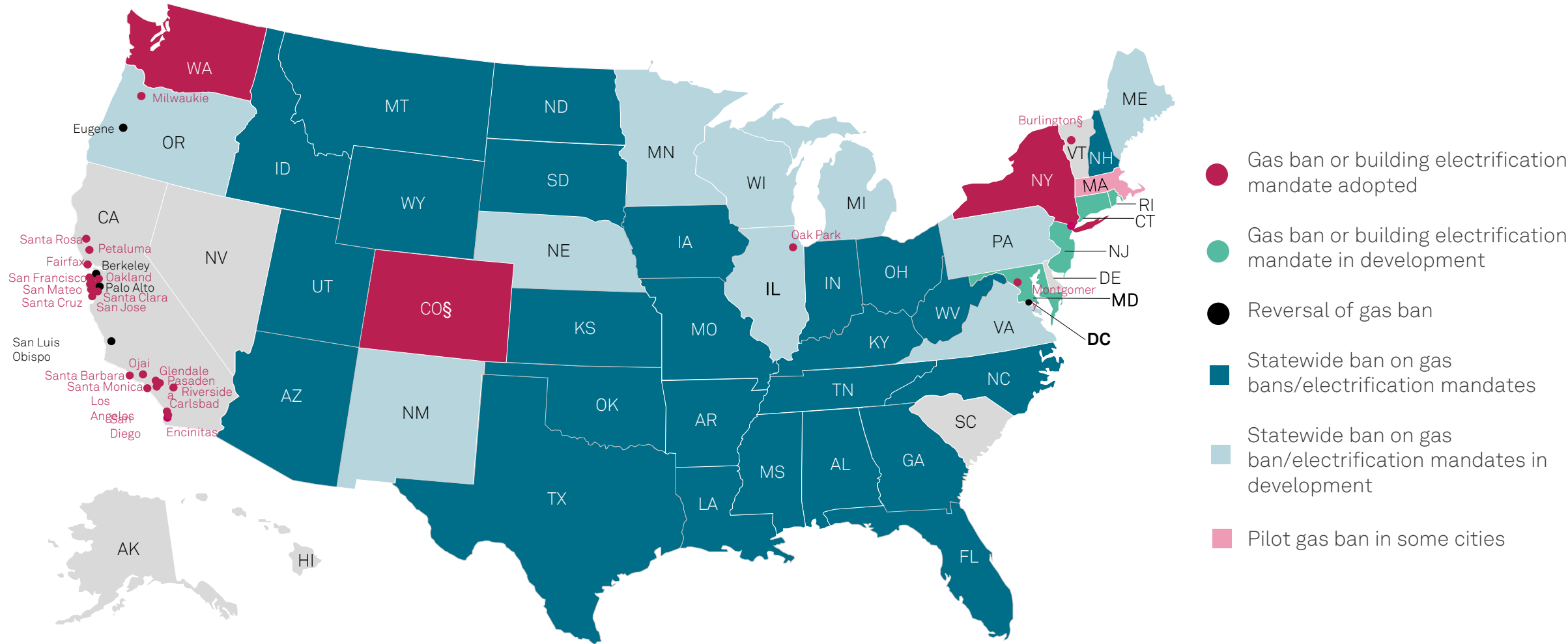
**Yankee Gas Services Co.**

**Avangrid, Inc.**

**SJW Group**

**Eversource Energy**

# Current State Of Gas Bans And Electrification Mandates



Data as of April 26, 2024. \*Municipalities shown on map are a subset of municipalities in the US that have gas ban policies or electric reach codes in place. §Colorado and Burlington mandates target emissions requirements set out in respective laws or regulations. Source: S&P Commodity Insights

	Algonquin Power & Utilities Corp.	ALLETE Inc.	Alliant Energy Corp.	AltaGas Ltd.	Ameren Corp.	American Electric Power Co. Inc.	American Water Works Co. Inc.	American States Water Co.	Atmos Energy Corp.	AVANGRID Inc.
<b>Rating/Outlook</b>	BBB/Stable	BBB/ <b>Negative</b>	A-/ <b>Negative</b>	BBB- /Stable	BBB+/ Stable	BBB+/ <b>Negative</b>	A/Stable	A/Stable	A-/ Stable	BBB+/ Stable
<b>Upgrade trigger</b>	> 13%	N/A	N/A	> 15%	> 18%	N/A	> 16%	> 25%	> 22%	> 20% *
<b>Downgrade trigger</b>	< 11%	< 17%	< 15%	< 10%	< 13%	< 13%	< 12%	< 20%	< 16%	< 17% *
<b>FFO/debt (%)</b>										
<b>2023A</b>	11.2	19.6	13.3	10.7	15.3	12.3	14.3	19.3	21.1	17.9 *
<b>2024E</b>	11-13	17 – 19	14– 17	11 – 13	16 – 17	12 – 15	13 – 14	20 – 23	21 – 22	19 – 20 *
<b>2025E</b>	11-13	17 – 19	14– 17	11 – 13	16 – 17	14 – 16	12 – 14	22 – 25	20 – 21	19 – 20 *
<b>2026E</b>	11-13	17 – 19	14– 17	11 – 13	16 – 17	13 – 15	12 – 14	23 – 26	19 – 20	19 – 20 *

\*Reflects parent Iberdrola S.A.'s upgrade and downgrade triggers and metrics. Source: S&P Global as of May. 13, 2024.

	Avista Corp.	Berkshire Hathaway Energy Co.	Black Hills Corp.	CenterPoint Energy Inc.	Cleco Corporate Holdings LLC	CMS Energy Corp.	Consolidated Edison Inc.	Dominion Energy Inc.	DPL Inc.	DTE Energy Co.
<b>Rating/Outlook</b>	BBB/ Negative	A/Stable	BBB+/ Stable	BBB+/ Negative	BBB-/ WatchPos	BBB+/Stable	A-/Stable	BBB+/ Negative	BB/Stable	BBB+/Stable
<b>Upgrade Trigger</b>	N/A	> 21%	> 17%	N/A	> 23%	> 16%	> 21%	N/A	> 8%	> 18%
<b>Downgrade Trigger</b>	< 14%	< 13%	< 13%	< 12%	N/A	< 13%	< 16%	< 13%	< 5%	< 13%
<b>FFO/Debt (%)</b>										
<b>2023A</b>	13.1	11.3	12.9	11.2	4.1	12.7	12.6	10.8	5.8	16.2
<b>2024E</b>	13 – 14	16 – 17	13 – 14	12 – 13	13 – 15	13 – 15	17 – 19	17 – 18	4 – 7	14 – 16
<b>2025E</b>	14 – 16	15 – 17	13 – 14	12 – 13	13 – 15	13 – 15	17 – 19	13 – 14	4 – 7	14 – 16
<b>2026E</b>	14 – 16	15 – 17	13 – 14	12 – 13	13 – 15	13 – 15	17 – 19	13 – 14	5 – 8	14 – 16

Source: S&P Global as of May. 13, 2024.

	Duke Energy Corp.	Edison International	Emera Inc.	Energir Inc.	Entergy Corp.	Essential Utilities Inc.	Energy Inc.	Eversource Energy	Exelon Corp.	FirstEnergy Corp.
<b>Rating/Outlook</b>	BBB+/Stable	BBB/Stable	BBB/ Negative	A/Stable	BBB+/Stable	A-/Stable	BBB+/Stable	A-/Negative	BBB+/Positive	BBB/ Positive
<b>Upgrade Trigger</b>	> 16%	> 20%	N/A	> 20%	> 18%	> 12%	> 16%	N/A	> 13%	> 12%
<b>Downgrade Trigger</b>	< 12%	< 14%	< 10%	< 14%	< 13%	< 10%	< 13%	< 14%	N/A	N/A
<b>FFO/Debt (%)</b>										
<b>2023A</b>	13.3	14.3	9.3	16.8	14.5	10.9	13.9	8.9	12.9	10.4
<b>2024E</b>	12 – 14	15 – 17	9 – 11	16 – 19	14 – 17	10 – 12	14 – 16	13 – 15	13 – 14	12 – 14
<b>2025E</b>	12 – 14	15 – 17	9 – 11	16 – 19	14 – 17	10 – 12	14 – 16	13 – 15	13 – 14	13 – 15
<b>2026E</b>	12 – 14	15 – 17	9 – 11	16 – 19	14 – 17	10 – 12	14 – 16	13 – 15	13 – 14	13 – 15

Source: S&P Global as of May. 13, 2024.



	Fortis Inc.	Hawaiian Electric Industries Inc.	Hydro One Ltd.	IDACORP Inc.	MDU Resources Group Inc.	Madison Gas & Electric Co.	NextEra Energy Inc.	NiSource Inc.	Northwest Natural Holding Co.	NorthWestern Corp.
<b>Rating/Outlook</b>	A-/Negative	B-/Negative	A/Positive	BBB/Stable	BBB/Negative	AA-/Stable	A-/Stable	BBB+/Stable	A/Negative	BBB/Stable
<b>Upgrade Trigger</b>	N/A	N/A	> 11%	> 20%	N/A	> 40%	> 25%	> 16%	N/A	> 22%
<b>Downgrade Trigger</b>	< 12%	N/A	N/A	< 14%	< 15%	< 28%	< 18%	< 13%	< 15%	< 14%
<b>FFO/Debt (%)</b>										
<b>2023A</b>	11.4	14.1	13.2	14.5	18.6	27.5	18.4	14.0	11.8	13.4
<b>2024E</b>	11 – 12	14 – 17	12 – 13	15 – 18	16 – 17	27 – 29	18 – 20	14 – 16	14 – 16	14 – 16
<b>2025E</b>	11 – 13	14 – 17	12 – 13	15 – 18	14 – 15	27 – 29	18 – 20	14 – 16	14 – 16	14 – 16
<b>2026E</b>	11 – 13	14 – 17	12 – 13	15 – 18	15 – 16	27 – 29	18 – 20	14 – 16	14 – 16	14 – 16

Source: S&P Global as of May. 13, 2024.

	OGE Energy Corp.	Oncor Electric Delivery Co. LLC	ONE Gas Inc.	Ontario Power Generation Inc.	Otter Tail Corp.	PacifiCorp	Portland General Electric Co.	PG&E Corp.	Pinnacle West Capital Corp.	PNM Resources Inc.
<b>Rating/Outlook</b>	BBB+/Stable	A/Stable	A-/Stable	BBB+/Stable	BBB/Stable	BBB+/Negative	BBB+/Stable	BB/Stable	BBB+/Stable	BBB/Stable
<b>Upgrade Trigger</b>	> 18%	> 18%	> 23%	> 20%	> 31%	N/A	> 18%	> 13%	> 19%	> 21%
<b>Downgrade Trigger</b>	< 13%	< 13%	< 16%	< 13%	< 21%	< 13%	< 15%	< 13%	< 13%	< 14%
<b>FFO/Debt (%)</b>										
<b>2023A</b>	18.3	14.1	20.4	19.8	41.7	(3.4)	16.2	11.3	15.7	8.7
<b>2024E</b>	16 – 18	13 – 14	18 – 20	13 – 14	26 – 42	13 – 15	18 – 20	13 – 15	17 – 19	14 – 15
<b>2025E</b>	17 – 19	13 – 14	18 – 20	13 – 14	26 – 42	13 – 15	16 – 18	16 – 18	17 – 19	14 – 15
<b>2026E</b>	17 – 19	13 – 14	18 – 20	13 – 14	26 – 42	13 – 15	19 – 21	17 – 19	17 – 19	14 – 15

Source: S&P Global as of May. 13, 2024.

	PPL Corp.	Puget Energy Inc.	Sempra	SJW Group	Southern Co.	Southwest Gas Holdings Inc.	Spire Inc.	WEC Energy Group Inc.	Xcel Energy Inc.
<b>Rating/Outlook</b>	A-/Stable	BBB-/Stable	BBB+ /Stable	A-/Negative	A-/Stable	BBB-/Positive	A-/Negative	A-/Stable	BBB+/Negative
<b>Upgrade Trigger</b>	> 21%	> 16%	> 25%	N/A	> 21%	> 10%	N/A	> 20%	N/A
<b>Downgrade Trigger</b>	< 16%	< 13%	< 15%	< 10%	< 16%	N/A	< 15%	< 15%	< 13%
<b>FFO/Debt (%)</b>									
<b>2023A</b>	13.8	13.8	13.8	9.6	14.7	12.0	10.5	15.3	16.2
<b>2024E</b>	17 – 19	14– 16	15 – 16	10 – 11	16 – 17	10 – 12	13 – 14	15 – 16	15 – 16
<b>2025E</b>	17 – 19	14 – 16	15 – 16	10 – 11	16 – 17	10 – 12	13 – 14	15 – 16	15 – 16
<b>2026E</b>	17 – 19	14 – 16	15 – 16	10 – 11	16 – 17	10 – 12	14 – 15	15 – 16	15 – 16

Source: S&P Global as of May. 13, 2024.

# Appendix

- NextEra Energy's (NEE) downside trigger was revised on March 16, 2023, to 18% from 20%
- Algonquin Power and Utilities Corp.'s (AQN) downside trigger was revised on August 15, 2023, to 11% from 14%, predicated on the sale of the renewable business
- DPL Inc.'s (DPL) downside trigger was revised on August 18, 2023, to 5%
- Fortis Inc.'s (FTS) downside trigger was revised on November 03, 2023, to 12% from 10.5%
- SJW Group's (SJW) downside trigger was revised on September 19, 2023, to 10% from 9%
- Evergy Inc. (EVRG) was downgraded to 'BBB+' from 'A-' on November 29, 2023, and downside trigger was revised to 13%
- Eversource Energy's (ES) downside trigger was revised on January 11, 2024, to 14% from 13%
- PG&E Corp. (PCG) was upgraded to 'BB' from 'BB-' on February 24, 2024, and downgrade trigger was revised to 13%
- American Electric Power (AEP) was downgraded to 'BBB+' from 'A-' on March 04, 2024, and downside trigger was revised to 13%
- Essential Utilities, Inc. (WTRG) was downgraded to 'A-' from 'A' on March 19, 2024, and downside trigger was revised to 10%
- Edison International's (EIX) downside trigger was revised on April 22, 2024, to 14% from 15%
- The Southern Co. (SO) was upgraded to 'A-' from 'BBB+' on May 02, 2024, and downgrade trigger was revised to 16%
- Black Hills Corp.'s (BKH) downside trigger was revised on May 09, 2024, to 13%

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