Q4 2023

Credit Ratings

HIGHLIGHTS

- The industry's average parent company credit rating in 2023 remained at BBB+ for the tenth straight year.
- There were only 43 actions in 2023 (16 upgrades, 27 downgrades). On December 31, 68% of parent company outlooks were "stable", 16% were "positive" or "watchpositive", 16% were "negative" or "watch-negative".
- Upgrades cited reduced financial uncertainty and reduced regulatory lag due to predictable regulation and improved metrics related to wildfire risk in California.
- Many of the year's downgrades related to the Maui wildfires in August 2023. Additional downgrades were linked to a terminated acquisition, increased wildfire risk in Oregon, and increased debt from capital investment.
- As 2024 began. S&P maintained a stable outlook for regulated utilities. Moody's maintained the stable outlook for regulated utilities it had revised from negative in late 2023. Fitch retained its deteriorating outlook for North American utilities.

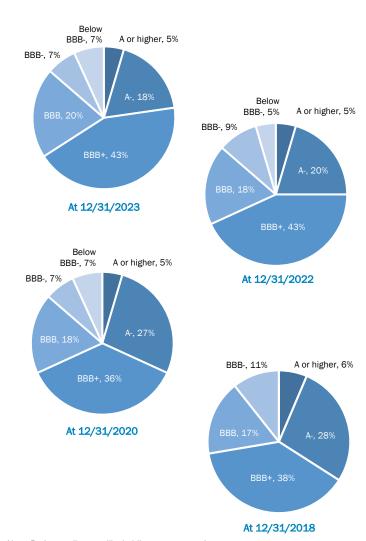
COMMENTARY

The industry's average parent company credit rating in 2023 remained at BBB+ for the tenth straight year, although four parent-level downgrades caused a weakening in aggregate holding company credit quality. There were only 43 total actions — 16 upgrades and 27 downgrades — affecting both parents and subsidiaries. This pace was far below the 68-action annual average of the previous ten calendar years and is the second-lowest annual total in our historical dataset (back to 2000).

On December 31, 2023, 68% of parent company ratings outlooks were "stable" and 16% were "positive" or "watch-

I. S&P Utility Credit Ratings Distribution

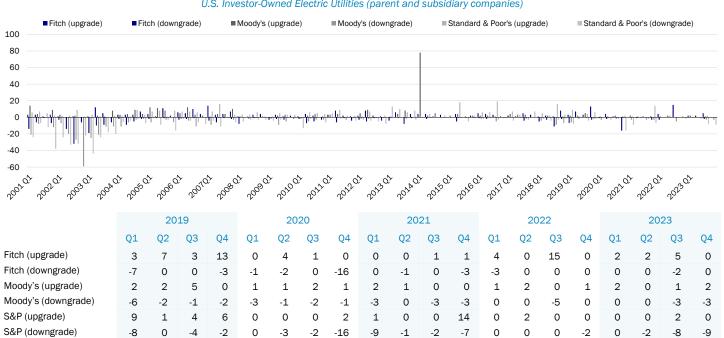
U.S. Investor-Owned Electric Utilities (parent level only)



Note: Rating applies to utility holding company entity. Source: Standard & Poor's, S&P Global Market Intelligence, and EEI Finance Dept.



U.S. Investor-Owned Electric Utilities (parent and subsidiary companies)



Note: Chart depicts the number of upgrades / downgrades for all rated companies, including subsidiaries, during the quarter. Source: S&P Global Market Intelligence and EEI Finance Dept.

III. Total Ratings Actions

U.S. Investor-Owned Electric Utilities (parent and subsidiary companies)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Fitch	22	31	41	17	14	24	25	26	23	14	11	16	15	33	36	24	6	22	11
Moody's	46	39	32	6	23	20	11	20	17	85	12	13	12	23	20	12	12	9	11
S&P	53	40	48	27	20	36	24	30	40	7	27	38	25	37	34	23	34	4	21
Total	121	110	121	50	57	80	60	76	80	106	50	67	52	93	90	59	52	35	43

Source: S&P Global Market Intelligence and EEI Finance Dept.

IV. Direction of Ratings Actions

U.S. Investor-Owned Electric Utilities (parent and subsidiary companies)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Upgrades	51	73	67	73	24	23	29	39	37	60	103	35	49	38	41	55	12	20	25	16
Downgrades	59	48	43	48	26	34	51	21	39	20	3	15	18	14	52	35	47	32	10	27
% Upgrades	46.4	60.3	60.9	60.3	48.0	40.4	36.3	65.0	48.7	75.0	97.2	70.0	73.1	73.1	44.1	61.1	20.3	38.5	71.4	37.2
Total Actions	110	121	110	121	50	57	80	60	76	80	106	50	67	52	93	90	59	52	35	43



Source: Fitch Ratings, Moody's, Standard & Poor's

positive". Only 16% of outlooks were "negative" or "watchnegative"; this is an increase over the 11% at year-end 2022, which was the lowest negative share since 2013.

Electric utility industry credit quality has generally improved over the past decade. The industry's average parent-level rating has held at BBB+ since increasing from BBB in 2014. Upgrades have outnumbered downgrades in six of the past ten calendar years with an annual average upgrade percentage of 59% over the decade.

EEI captures upgrades and downgrades at both the parent and subsidiary levels. The industry's average credit rating and outlook are the unweighted averages of all Standard & Poor's (S&P) parent holding company ratings and outlooks. However, our upgrade/downgrade totals reflect all actions by the three major ratings agencies affecting parent holding companies as well as individual subsidiaries. Our universe of 44 U.S. parent company electric utilities on December 31, 2023 included 39 that are publicly traded and five that are either a subsidiary of an independent power producer, a subsidiary of a foreign owned company, or owned by an investment firm.

Credit Actions at Parent Level

The only parent-level ratings actions in 2023 by S&P were four downgrades. By comparison, there was one downgrade and no upgrades in 2022, three downgrades and one upgrade in 2021, and three downgrades, one upgrade and one reinstatement in 2020.

On August 15, S&P Global Ratings downgraded Hawaiian Electric Industries (HE) to BB- from BBB-. Subsidiaries Hawaiian Electric, Maui Electric, and Hawaii Electric Light were also downgraded to BB- from BBB. The downgrades resulted from the worst wildfires in Hawaii's history, predominantly on the island of Maui, with over 2,200 structures destroyed and many fatalities. S&P noted that the severity of the fires showed that wildfire risk for the utilities was higher than previously expected, and that class action lawsuits related to the event would significantly increase uncertainty and financial risk going forward.

On August 24, S&P Global Ratings again downgraded HE to B- from BB- following the announcement that its dividend would be suspended beginning in Q3 as a result of the wildfires. Subsidiaries Hawaiian Electric, Maui Electric, and Hawaii Electric Light were also downgraded to B- from BB-. S&P cited growing concern about the company's access to capital markets due to class-action lawsuits.

On November 8, S&P Global Ratings downgraded MDU Resources Group (MDU) to BBB from BBB+ after MDU completed a strategic review and announced the divestiture of its construction services business by year-end 2024. MDU completed a spinoff of its construction materials business, Knife River, in 2023. S&P said the November 8

downgrade reflected the fact that MDU Resources will no longer have the diversification benefit of multiple uncorrelated business lines.

On November 29, S&P Global Ratings downgraded Evergy (EVRG) to BBB+ from A-. Subsidiaries Evergy Kansas Central, Evergy Kansas South, and Evergy Missouri West were also downgraded to BBB+ from A-, while subsidiary Evergy Metro was downgraded to A- from A. S&P cited two recent rate review settlements in Kansas as the primary cause of the downgrades; these were the first rate review decisions in Kansas since the merger between Great Plains Energy and Westar Energy in 2018.

Ratings Activity Remained Slow in 2023

The 43 ratings actions during 2023 (upgrades and downgrades) was the second-lowest total for any year since our dataset's inception in 2000. By comparison, there were 35 actions in 2022, 52 actions in 2021, 59 actions in 2020, and an annual average of 68 over the last decade.

The industry's 16 upgrades in 2023 versus 27 downgrades produced an upgrade percentage of 37.2%, down from 71.4% in 2022 and 38.5% in 2021. Upgrades outnumbered downgrades in six of the past ten calendar years, with an annual average upgrade percentage of 59%.

The Credit Rating Agency Upgrades and Downgrades table presents quarterly activity by all three ratings agencies. Following are full-year totals for 2023:

Fitch (9 upgrades, 2 downgrades) Moody's (5 upgrades, 6 downgrades) Standard & Poor's (2 upgrades, 19 downgrades)

Upgrades in 2023

Many of the year's upgrades cited reduced financial uncertainty and reduced regulatory lag due to a more predictable regulatory framework. Other upgrades were driven by improved metrics related to wildfire risk in California, with a significant decline in the number of wildfires linked to utility equipment in the state.

On February 23, Moody's upgraded Edison International (EIX) to Baa2 from Baa3 and its Southern California Edison subsidiary to Baa1 from Baa2. Moody's noted the progress made by Southern California Edison to address wild-fire risk, combined with its access to the state's wildfire fund and the legislative reform of the wildfire cost recovery process, has materially improved overall credit quality.

On March 20, Fitch upgraded PG&E (PCG) to BB+ from BB and upgraded subsidiary Pacific Gas & Electric to BB+ from BB. Fitch cited as primary catalyst for the upgrades the significant decline in the number of wildfires involving PG&E equipment during 2019–2022 compared with 2017–2018, along with lower related liabilities. The up-

V. S&P Utility Credit Rating Distribution by Company Category

U.S. Investor-Owned Electric Utilities (parent level only)

	12/31/2018		12/31/2019		12/31/2020		12/31/2021		12/31/2022		12/31/2023	
DECLI ATER	12/01/2		12/01/2	2010	12/01/	2020	12/01/	2021	12/01/	2022	12/01/	2020
REGULATED												
A or higher	1	3%	1	3%	1	3%	1	3%	1	3%	1	3%
A-	11	32%	11	31%	11	32%	8	23%	8	22%	11	32%
BBB+	11	32%	11	31%	10	29%	14	40%	15	42%	10	29%
BBB	7	21%	8	23%	7	21%	7	20%	7	19%	7	21%
BBB-	4	12%	2	6%	2	6%	3	9%	3	8%	2	6%
Below BBB-	0	0%	2	6%	3	9%	2	6%	2	6%	3	9%
Total	34	100%	35	100%	34	100%	35	100%	36	100%	34	100%
MOSTLY REGULATED												
A or higher	2	15%	1	10%	1	10%	1	11%	1	13%	1	10%
A-	2	15%	1	10%	1	10%	1	11%	1	13%	1	10%
BBB+	7	54%	7	70%	6	60%	5	56%	4	50%	6	60%
BBB	1	8%	0	0%	1	10%	1	11%	1	13%	1	10%
BBB-	1	8%	1	10%	1	10%	1	11%	1	13%	1	10%
Below BBB-	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Total	13	100%	10	100%	10	100%	9	100%	8	100%	10	100%

Sources: Standard & Poor's, S&P Global Market Intelligence, and EEI Finance Dept.

grades were also driven by California's wildfire-related legislative reforms, by PG&E's ongoing management efforts to reduce wildfire risk, and by Fitch's expectation that credit metrics at the utilities will improve.

On April 28, Fitch upgraded Edison International (EIX) to BBB from BBB- and upgraded subsidiary Southern California Edison to BBB from BBB-. The upgrades mostly reflect the significant decline in wildfires linked to Southern California Edison's equipment after 2018 despite elevated wildfire activity in California in 2020 and 2021, as well as ongoing efforts to enhance system resilience. With the large majority of 2017/2018 wildfire liabilities resolved, Fitch also said it expects EIX's 2023-2026 credit metrics to improve significantly.

On July 24, S&P Global Ratings upgraded Xcel Energy subsidiary Northern States Power to A from A-. The move followed a final order by the Minnesota Public Utility Commission authorizing a \$306 million aggregate rate increase for 2022-2024. S&P Global Ratings cited constructive regulation in Minnesota that includes a multi-year ratemaking framework for electric rates based on forecasted rate-base estimates. The agency noted this reduces regulatory lag, cash flow volatility and uncertainty for the utility and its stakeholders.

On July 26, S&P Global Ratings upgraded Exelon subsidiary Commonwealth Edison to A- from BBB+ due to an improved assessment of governance. The U.S. District Court for the Northern District of Illinois dismissed a brib-

ery charge against the utility following completion of a three-year deferred prosecution agreement that required increased oversight and training related to internal controls.

On July 28, prior to the wildfires in Maui, Fitch upgraded Hawaiian Electric Industries (HE) to BBB+ from BBB and upgraded subsidiary Hawaiian Electric to A- from BBB+. Fitch cited a more predictable regulatory framework implemented in 2021 as the primary reason; regulatory adjustments have improved stability of earnings and cash flow and will moderate the impact of inflation. Fitch also expected Hawaiian Electric to narrow the gap between allowed and earned ROEs over the next few years.

On September 1, Fitch upgraded Southern Company subsidiary Georgia Power to BBB+ from BBB due to the successful start of commercial operation at Vogtle Unit 3. The nuclear unit was placed into service on July 31, 2023. The upgrade also reflects a constructive agreement with the Georgia Public Service Commission (PSC) and other intervenors that allows Georgia Power to recover \$7.6 billion of capital costs and \$1.0 billion of capitalized financing costs associated with construction of the two Vogtle nuclear units.

On September 22, Fitch upgraded utility parent company Otter Tail (OTTR) to BBB from BBB- and upgraded subsidiary Otter Tail Power to BBB+ from BBB. Fitch cited the predictable earnings and cash flow from the company's regulated operations and strong performance at its non-utility manufacturing and plastics business segments. Fitch

expects the regulatory environment to remain supportive of credit quality across the company's three state jurisdictions (Minnesota, North Dakota and South Dakota).

On September 26, Moody's upgraded Southern Company subsidiary Mississippi Power to A3 from Baa1 based on an improved Mississippi regulatory environment. Moody's cited the consistency and predictability shown by the Mississippi PSC during the last few years as it approved rate orders in several Mississippi Power regulatory proceedings.

On November 20, Moody's upgraded Consolidated Edison (ED) to Baa1 from Baa2 and upgraded subsidiary Consolidated Edison (CECONY) to A3 from Baa1. Moody's noted better regulatory support as the primary reason, citing recent decisions by the New York PSC that resulted in revenue increases and improved financial metrics. Moody's stated that stakeholder relationships have improved since the last rate order in 2020, with increased political support, more predictable regulatory outcomes and better cost recovery.

Downgrades in 2023

Many of the year's downgrades related to the Maui wildfires in August 2023. Additional downgrades were linked to a terminated acquisition, increased wildfire risk in Oregon, and increased debt from capital investment.

On April 20, S&P Global Ratings downgraded AEP subsidiary Kentucky Power to BBB from BBB+ following cancellation of the planned sale of Kentucky Power to Liberty Utilities. The downgrade was driven by weakening stand-alone financial measures at Kentucky Power. In 2021 and 2022, Kentucky Power's FFO to debt was 11.6% and 11.4%, respectively, significantly below S&P's downgrade threshold of 15%.

On June 20, S&P Global Ratings downgraded Berkshire Hathaway Energy subsidiary PacifiCorp to BBB+ from A following a negative decision in a class action lawsuit related to four Oregon wildfires in 2020. In S&P's view, the verdict that the company contributed to the wildfires significantly increases operating risk for PacifiCorp. S&P also noted that the jury award on a per-plaintiff basis was materially above base-case assumptions. The jury also found that a broader absent class affected by the fires could bring more claims against the company.

On August 11, Moody's downgraded DPL to Ba2 from Ba1 and downgraded subsidiary Dayton Power & Light (DP&L) to Baa3 from Baa2. Moody's observed that the pace of DP&L's investments in transmission, distribution and smart-grid improvements is driving a significant increase in debt, which will more than double between 2021 and 2024. While DP&L's Energy Security Plan IV recently became effective in Ohio, allowing it to implement a delayed

VI. Cı	edit Ratings	Distribution	
Investment Grade	Moody's	S&P	Fitch
	Aaa	AAA	AAA
	Aa1	AA+	AA+
	Aa2	AA	AA
	Aa3	AA-	AA-
	A1	A+	A+
	A2	Α	Α
	A3	A-	A-
	Baa1	BBB+	BBB+
	Baa2	BBB	BBB
	Baa3	BBB-	BBB-
Speculative Grade	Moody's	S&P	Fitch
	Ba1	BB+	BB+
	Ba2	ВВ	ВВ
	Ba3	BB-	BB-
	B1	B+	B+
	B2	В	В
	В3	B-	B-
	Caa1	CCC+	CCC+
	Caa2	CCC	CCC
	Caa3	CCC-	CCC-
	Ca	СС	СС
	С	С	С
Default	Moody's	S&P	Fitch
	С	D	D

Source: Fitch Ratings, Moody's, Standard & Poor's

base-rate increase, Moody's noted DP&L's agreement to not pursue decoupling exposes its cash flow to more volatility.

On August 18, Moody's downgraded Hawaiian Electric Industries subsidiary Hawaiian Electric Company to Ba3 from Baa1 due to the Maui wildfires. Moody's expects significant financial liabilities if the utility is found to be at fault once investigations are complete. Moody's also noted the future regulatory risk related to cost recovery for system rebuilding.

On August 21, Fitch downgraded Hawaiian Electric Industries to B from BBB+ and downgraded subsidiary Hawaiian Electric to B from A-. Fitch also assigned first-time ratings of B to Hawaiian Electric Company's subsidiaries Maui Electric and Hawaii Electric Light. If investigations

find that utility equipment caused the August wildfires and the utility is deemed by a court to be negligent, Fitch believes the companies may be subject to large third-party liabilities in a process that could take several years.

On October 27, Moody's downgraded Eversource Energy (ES) to Baa2 from Baa1 and downgraded subsidiary NSTAR Electric to A2 from A1. Moody's cited heightened uncertainty related to the company's pending offshore wind project sale and concerns that additional balance sheet actions would be needed to offset the challenges associated with the wind project transaction. Moody's also noted a challenging regulatory environment in Connecticut.

On November 20, S&P Global Ratings downgraded Berkshire Hathaway Energy (BHE) subsidiaries MidAmerican Energy, Nevada Power, and Sierra Pacific Power to Afrom A. The downgrades were driven by an assessment that BHE will not provide extraordinary support to its subsidiaries under all foreseeable circumstances. S&P said it now expects BHE's extraordinary support for subsidiary PacifiCorp would be limited should PacifiCorp receive further adverse outcomes in a class action lawsuit related to wildfires.

On December 11, Moody's downgraded Alliant Energy subsidiary Wisconsin Power and Light to Baa1 from A3. Moody's stated that WPL's financial metrics have been weak since 2018 largely due to a three-year base rate freeze associated with the 2017 Tax Cuts and Jobs Act and the coronavirus pandemic, additional debt issuance to help finance higher capital expenditures, and under-recovered fuel costs.

Ratings by Company Category

The S&P Utility Credit Ratings Distribution by Company Category table presents the distribution of credit ratings over time by company category (Regulated, Mostly Regulated and Diversified) for the investor-owned electric utilities. The Diversified category was eliminated in 2017 due to its dwindling number of companies. Ratings are based on S&P's long-term issuer ratings at the holding company level, with only one rating assigned per company. On December 31, 2023, the average rating for the Regulated category was BBB+ and the average rating for the Mostly Regulated category was BBB.

Rating Agency Credit Outlooks

The three major ratings agencies held divergent utility industry credit outlooks as 2024 began. S&P maintained a stable outlook for regulated utilities. Moody's maintained the stable outlook for regulated utilities that it had revised from negative in late 2023. Fitch retained its deteriorating outlook for North American utilities. The agencies cited increased physical risks to utility infrastructure, elevated capital expenditures and related customer bill impacts, and stability of financial metrics as key themes they are watching. We note

that the groups of underlying companies vary slightly across the three rating agency outlooks.

Standard & Poor's (S&P)

Published in January 2024, S&P's report "Industry Credit Outlook 2024 – North America Regulated Utilities" maintained the agency's stable industry outlook. However, the report observed that downgrades outpaced upgrades for the fourth consecutive year in 2023. And, given that 28% of the industry has a negative outlook versus 14% with a positive outlook, the agency said it's possible that downgrades may outpace upgrades once again in 2024.

S&P's base case assumes that industry credit quality will remain challenged in 2024. For many utilities, the physical risk to system infrastructure is growing as climate change increases the frequency of extreme weather events such as wildfires. S&P cited industry initiatives that are addressing wildfire risk, including detailed wildfire mitigation plans, system hardening, improved weather forecasting using machine learning, implementation of public safety power shutoffs (PSPS) programs, and vegetation management. S&P also noted that, while the industry's robust capital spending represents necessary investment in safety, reliability, and in the nation's energy transition, it is also leading to rising leverage. Consistent access to the capital markets will be necessary for the industry to fund its debt maturities and cash flow deficits.

S&P noted that effective management of regulatory risk will be key to maintaining the industry's credit quality going forward. This will require constructive rate case orders, minimized regulatory lag, and management of customer bill impacts. Timely recovery of capital expenditures and operation and maintenance costs will also be necessary for the industry to maintain credit quality.

Moody's

In its "Outlook – Regulated Electric and Gas Utilities – US" (published in September 2023), Moody's revised its outlook for the sector to stable from negative. Moody's noted that sustained lower natural gas prices, moderating inflation, and continued regulatory support for the recovery of fuel and purchased power costs will improve credit metrics for the industry. The significant decline in natural gas prices since mid-2022 has provided relief to utilities and has eased both affordability pressures and regulatory risk.

The report also stated that interest rates and capital spending will continue to pressure holding company credit metrics. Although the pace and magnitude of interest rate increases have slowed, increased debt and debt refinancing costs will pressure parent company metrics. Moody's expects utilities to maintain high levels of capital spending as they focus on reducing carbon emissions and investing in

system resilience and reliability. Moody's noted that, despite many challenges, aggregate sector FFO metrics have been remarkably steady and are likely to remain so. The sector's aggregate industry funds from operations (FFO) to debt ratio will likely stabilize at 14% in 2024, according to the report.

Moody's listed several factors that could change its outlook back to negative: 1) if there is a sustained decline in regulatory support for timely cost recovery, 2) if capital market access becomes less certain or the availability of bank credit facilities becomes constrained, or 3) if the sector's aggregate FFO-to-debt ratio dips materially below 14%. Factors that could change its outlook to positive were: 1) if the regulatory and political environment turns even more credit supportive, and 2) if the sector's aggregate FFO-to-debt ratio rises to around 18% on a sustainable basis.

Fitch Ratings

In its "North American Utilities, Power & Gas Outlook 2024" (released December 2023), Fitch Ratings maintained its deteriorating outlook for the sector. Fitch stated that macroeconomic headwinds, elevated capital expenditures, and higher funding costs will continue to pressure utility credit metrics. Fitch noted that customer affordability concerns will persist despite a reduction in natural gas prices and inflation. However, with 90% of companies at a stable

ratings outlook, Fitch expects little ratings movement in 2024. Fitch expects median leverage metrics for the sector to improve in 2024, driven by the recovery of deferred fuel balances.

Fitch also cited the catastrophic wildfires in Maui to highlight the heightened physical risks faced by electric utilities as a result of climate change. The agency explained that California provides a roadmap for other states to follow regarding the development of comprehensive plans to prevent, mitigate and respond to wildfires. Some other states have begun to address this issue, and Fitch believes that progress on these initiatives could improve utility credit risk.

The report also noted positive tailwinds for the industry. Several electric utilities have begun to see sales growth from data centers, expansion of manufacturing facilities, and electrification trends in oil and gas drilling. Fitch expects weather-normalized total retail sales to be 0.5%-1.0% higher in 2024 compared with 2023. Fitch also expects authorized ROEs to start trending up with the increase in interest rates, although with a lag that could be longer than in previous cycles. Fitch stated that the gap between authorized and earned ROEs continues to narrow. Fitch also views the Inflation Reduction Act as a positive for credit quality since its tax incentives for clean generation will help offset inflationary bill pressures.