Q3 2023

Credit Ratings

HIGHLIGHTS

- The industry's average parent company credit rating remained at BBB+ throughout the first nine months of 2023, a level it has held since 2014.
- There were only 29 total actions — 14 upgrades and 15 downgrades — during the first nine months of 2023. On September 30, 65.9% of parent company ratings outlooks were "stable" and 11.4% were "positive" or "watch-positive". Only 22.7% of outlooks were "negative" or "watch-negative".
- Many upgrades cited a more predictable regulatory framework. Others 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.
- Of the 15 downgrades, one was linked to a terminated acquisition, one to increased wildfire risk in Oregon, and one to increased debt from capital investment. The remaining 12 were caused by August's Hawaii wildfires.

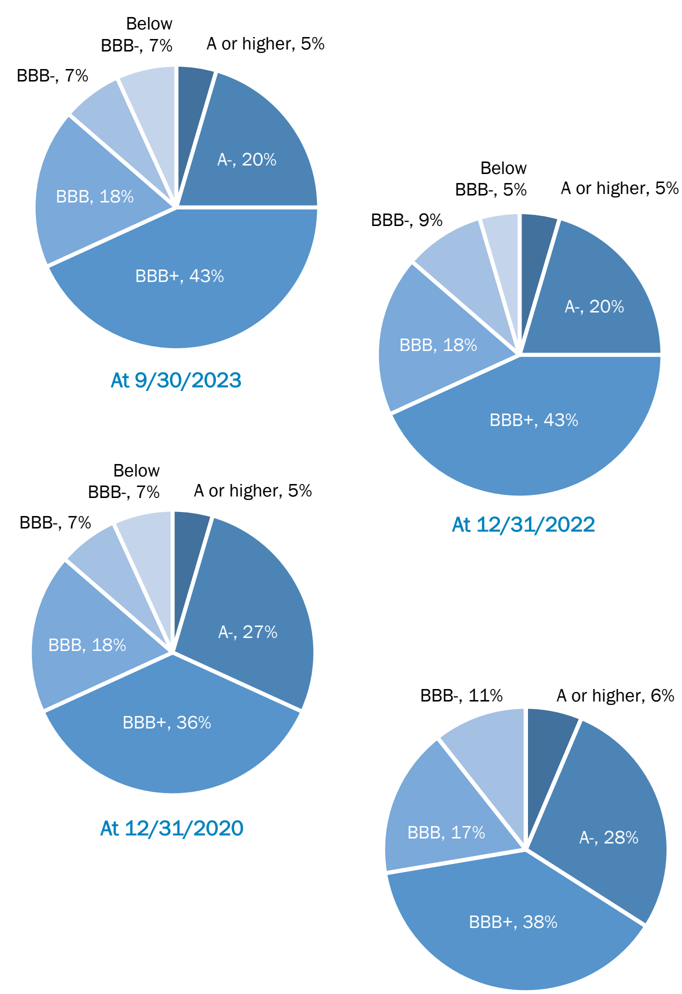
COMMENTARY

The industry's average parent company credit rating remained at BBB+ throughout the first nine months of 2023, a level it has held since 2014. Two parent-level downgrades caused a slight underlying weakening in general holding company credit quality. There were only 29 total actions — 14 upgrades and 15 downgrades — affecting both parents and subsidiaries. This compares to 32 total actions — 24 upgrades and eight downgrades — during the first nine months of 2022. The industry has averaged 68 actions annually over the last decade.

On September 30, 2023, 65.9% of parent company rat-

I. S&P Utility Credit Ratings Distribution

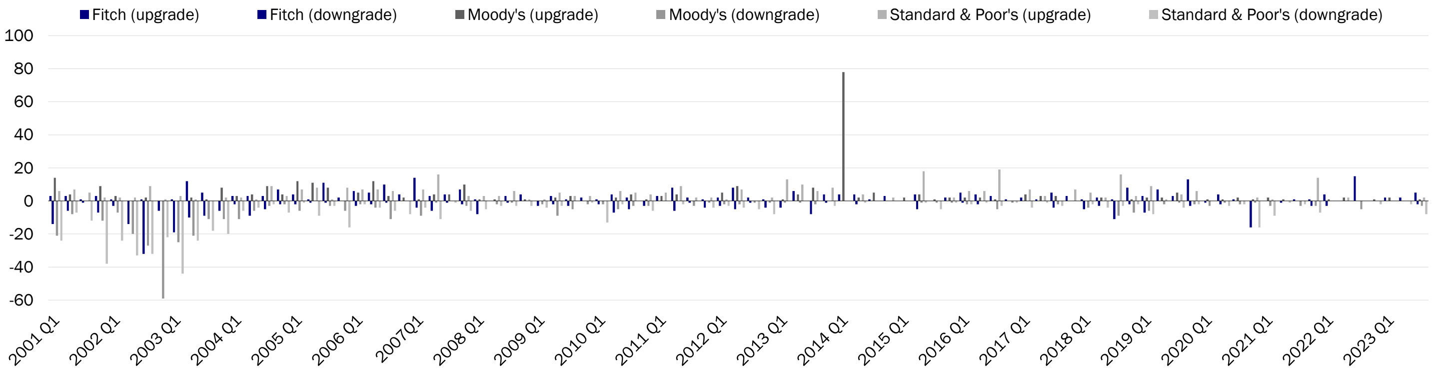
U.S. Investor-Owned Electric Utilities (parent level only)



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

II. Credit Rating Agency Upgrades and Downgrades

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



	2018				2019				2020				2021				2022				2023		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Fitch (upgrade)	1	2	1	8	3	7	3	13	0	4	1	0	0	0	1	1	4	0	15	0	2	2	5
Fitch (downgrade)	-5	-3	-11	-2	-7	0	0	-3	-1	-2	0	-16	0	-1	0	-3	-3	0	0	0	0	0	-2
Moody’s (upgrade)	0	2	0	1	2	2	5	0	1	1	2	1	2	1	0	0	1	2	0	1	2	0	1
Moody’s (downgrade)	-4	0	-9	-7	-6	-2	-1	-2	-3	-1	-2	-1	-3	0	-3	-3	0	0	-5	0	0	0	-3
S&P (upgrade)	5	2	16	3	9	1	4	6	0	0	0	2	1	0	0	14	0	2	0	0	0	0	2
S&P (downgrade)	-2	-4	-3	-2	-8	0	-4	-2	0	-3	-2	-16	-9	-1	-2	-7	0	0	0	-2	0	-2	-8

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)

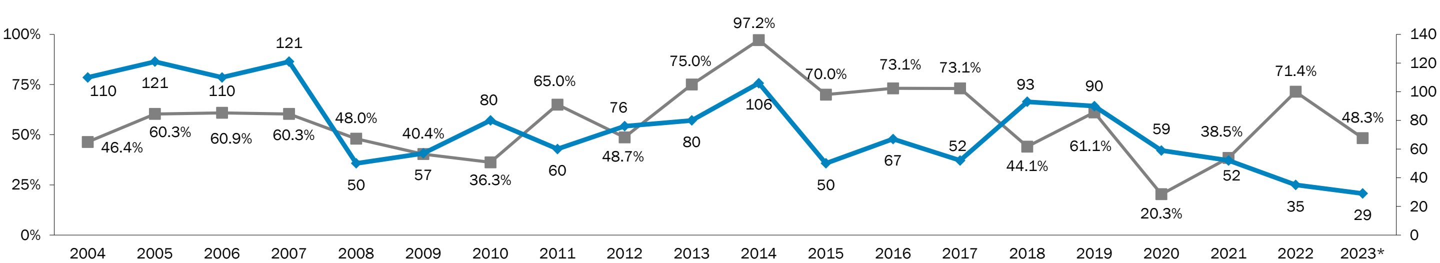
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023*
Fitch	22	31	41	17	14	24	25	26	23	14	11	16	15	33	36	24	6	22	11
Moody’s	46	39	32	6	23	20	11	20	17	85	12	13	12	23	20	12	12	9	6
S&P	53	40	48	27	20	36	24	30	40	7	27	38	25	37	34	23	34	4	12
Total	121	110	121	50	57	80	60	76	80	106	50	67	52	93	90	59	52	35	29

*Through September 30
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	14
Downgrades	59	48	43	48	26	34	51	21	39	20	3	15	18	14	52	35	47	32	10	15
% 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	48.3
Total Actions	110	121	110	121	50	57	80	60	76	80	106	50	67	52	93	90	59	52	35	29



*Through September 30
Source: Fitch Ratings, Moody’s, Standard & Poor’s

ings outlooks were "stable" and 11.4% were "positive" or "watch-positive". Only 22.7% of outlooks were "negative" or "watch-negative"; this is an increase over the 11.4% 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 seven of the past ten calendar years with an annual average upgrade percentage of 62% 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 S&P parent holding company ratings and outlooks. However, our upgrade/downgrade totals reflect all actions by the three major ratings agencies directed at parent holding companies as well as individual subsidiaries. Our universe of 44 U.S. parent-company electric utilities on September 30, 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

Parent-level ratings actions during the first nine months of 2023 included two downgrades and no upgrades. 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 Inc. (HE) to BB- from BBB-. Subsidiaries Hawaiian Electric Company, Maui Electric Company, and Hawaii Electric Light Company 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 these wildfires demonstrated higher wildfire risk for the companies than previously expected, and that class action lawsuits related to the wildfires would significantly increase uncertainty and financial risk going forward.

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

Ratings Activity Remains Slow

With only 29 rating actions during the first nine months of the year, 2023 is on track to be one of the quietest years for ratings activity 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 14 upgrades and 15 downgrades through Q3 2023 resulted in a 48% upgrade percentage, down from 75% during the first nine months of 2022.

Table II, Credit Rating Agency Upgrades and Downgrades, presents quarterly activity by all three ratings agencies since 2001.

S&P accounted for the majority of 2023's 29 actions with two upgrades and 10 downgrades, Fitch produced eleven (nine upgrades, two downgrades) and Moody's six (three upgrades, three downgrades).

Upgrades in 2023

Many of the year's upgrades cited a more predictable regulatory framework that reduced financial uncertainty and regulatory lag. Additional upgrades were specifically 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 upgraded subsidiary Southern California Edison to Baa1 from Baa2. Moody's stated that the progress made by Southern California Edison to address its wildfire risk, combined with its access to the state's wildfire fund and legislative reform of the wildfire cost recovery process, has materially improved overall credit quality.

On March 20, Fitch upgraded PG&E Corporation (PCG) to BB+ from BB and upgraded subsidiary Pacific Gas & Electric to BB+ from BB. Fitch cited a significantly lower number of wildfires involving PG&E equipment during 2019-2022 compared with 2017-2018, with lower related liabilities, as the primary catalyst of the credit upgrades. The upgrades were also driven by California's wildfire-related legislative reforms, by PG&E's ongoing management efforts to reduce wildfire risk, and by the agency's expectation for improving credit metrics at the utilities.

On April 28, Fitch upgraded Edison International (EIX) to BBB from BBB- and upgraded subsidiary Southern California Edison to BBB from BBB-. The upgrades primarily reflect a 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 wildfire system resilience. In addition, with the large majority of 2017 and 2018 wildfire liabilities resolved, Fitch 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

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		9/30/2023	
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%	8	21%
BBB+	11	32%	11	31%	10	29%	14	40%	15	42%	17	45%
BBB	7	21%	8	23%	7	21%	7	20%	7	19%	7	18%
BBB-	4	12%	2	6%	2	6%	3	9%	3	8%	3	8%
Below BBB-	0	0%	2	6%	3	9%	2	6%	2	6%	2	5%
Total	34	100%	35	100%	34	100%	35	100%	36	100%	38	100%
MOSTLY REGULATED												
A or higher	2	15%	1	10%	1	10%	1	11%	1	13%	1	17%
A-	2	15%	1	10%	1	10%	1	11%	1	13%	1	17%
BBB+	7	54%	7	70%	6	60%	5	56%	4	50%	2	33%
BBB	1	8%	0	0%	1	10%	1	11%	1	13%	1	17%
BBB-	1	8%	1	10%	1	10%	1	11%	1	13%	0	0%
Below BBB-	0	0%	0	0%	0	0%	0	0%	0	0%	1	17%
Total	13	100%	10	100%	10	100%	9	100%	8	100%	6	100%

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

followed a final order by the Minnesota PUC authorizing a $306 million aggregate rate increase for 2022-2024. S&P Global Ratings cited constructive regulation in Minnesota that reflects 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 bribery 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 Company 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 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 Otter Tail Corp (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 business, which consists of two segments: manufacturing and plastics. 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.

Downgrades in 2023

Of the 15 downgrades through September 30, one was linked to a terminated acquisition, one to increased wildfire risk in Oregon, and one to increased debt from capital investment. The remaining 12 were all caused by the Maui wildfires in August 2023.

On April 20, S&P Global Ratings downgraded AEP subsidiary Kentucky Power to BBB from BBB+ following the termination of the sale of Kentucky Power to Liberty Utilities. The downgrade was driven by weakening standalone 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 additional claims against the company.

On August 11, Moody's downgraded DPL Inc. to Ba2 from Ba1 and downgraded subsidiary Dayton Power & Light Company (DP&L) to Baa3 from Baa2. Moody's stated 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 to $1.2 billion. While DP&L's Energy Security Plan IV recently became effective in Ohio, allowing it to implement a delayed base-rate increase, Moody's noted that DP&L's agreement to not pursue decoupling exposes its cash flow to more volatility. Moody's also noted concern about a lower ratio of holding company debt to consolidated debt.

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

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

VI. Credit 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	A	A
	A3	A-	A-
	Baa1	BBB+	BBB+
	Baa2	BBB	BBB
	Baa3	BBB-	BBB-
Speculative Grade	**Moody's**	**S&P**	**Fitch**
	Ba1	BB+	BB+
	Ba2	BB	BB
	Ba3	BB-	BB-
	B1	B+	B+
	B2	B	B
	B3	B-	B-
	Caa1	CCC+	CCC+
	Caa2	CCC	CCC
	Caa3	CCC-	CCC-
	Ca	CC	CC
	C	C	C
Default	**Moody's**	**S&P**	**Fitch**
	C	D	D

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

Ratings by Company Category

Table V, S&P Utility Credit Ratings Distribution by Company Category, shows 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 September 30, 2023, the average rating for the Regulated category was BBB+ and the average rating for the Mostly Regulated category was BBB.■