U.S. Public Power and Electric Cooperatives Outlook 2023

Mounting Cost Pressures Threaten Operating Performance

Fitch's Sector Outlook: Deteriorating

Fitch Ratings' Deteriorating Outlook for the Public Power and Electric Cooperatives sector reflects our expectation economic and business conditions will create a more challenging operating environment in 2023, relative to 2022. Strong headwinds related to general inflationary pressures, higher natural gas and slower economic growth are expected to contribute to diminished operating performance. This could lead to a weakening in credit quality across the sector, absent aggressive efforts to reduce or recover operating costs, and increase rates to preserve margins.

Rating Outlook Distribution

Rating Outlooks throughout the sector remain overwhelmingly stable and we do not expect many rating changes in the sector next year. Approximately 91% of public power and cooperative ratings assigned by Fitch maintained a Stable Outlook. Around 5% of the ratings maintained a Positive Outlook or Watch and 5% a Negative Outlook or Watch.

The lower ratio of downgrades and percentage of Negative Outlooks in 2022 largely reflects Outlook revisions to Stable from Negative of 12 issuers operating in the Electric Reliability Council of Texas (ERCOT) market. We maintained Negative Outlooks on 15 ERCOT-based issuers as of YE 2021, resulting from structural weaknesses in the market that were exposed by the February 2021 winter storm event. Outlook revisions in 2022 reflect our view market reforms and risk mitigation activities taken by these issuers adequately reduced the magnitude of potential financial risk during future market disruptions.

Rating changes and Outlook revisions for pre-paid energy issuers were largely positive in 2022, driven by the improved financial profiles of major supply counterparties, such as Macquarie Group Limited (A/Stable) and Morgan Stanley (A+/Stable). However, pre-paid energy issuers were excluded from the sector rating metrics, as ratings are predominately driven by the credit quality of financial institution counterparties.

What to Watch

- Improved operating cost environment, including lower natural gas prices and interest rates.
- Sustained balance of capacity and demand.
- Demonstrated stability in the affordability of electric service.
- Expanded implementation of emissions limits.
- Improved efficiency in capital spending.

Kathy Masterson, Senior Director

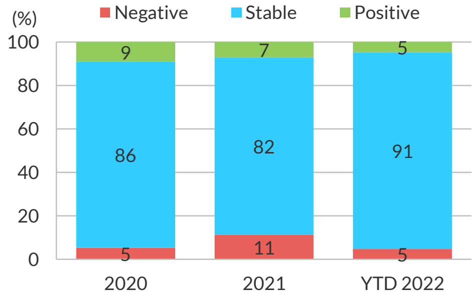
"Sustained cost pressures and slower economic growth through 2023 will result in the most challenging operating environment the Public Power sector has faced in many years. While disciplined cost recovery and rate-setting are a hallmark of the sector, a prolonged period of high inflation and lower demand could undermine efforts to preserve financial margins."

Core Credit Drivers: Public Power

	Revenues			Expenditures				Financial Profile		
Sub-Sectors	Personal Income/ Affordability	Real-Estate Values	Demand/ Volumes	Labor Costs	Labor Availability	Non-Labor Operating Costs	Capital Input Costs	Leverage	Cost of Debt	Financial Reserves & Liquidity
Public Power	↘	N.A.	↔	↘	↔	↘	↘	↘	↘	↔

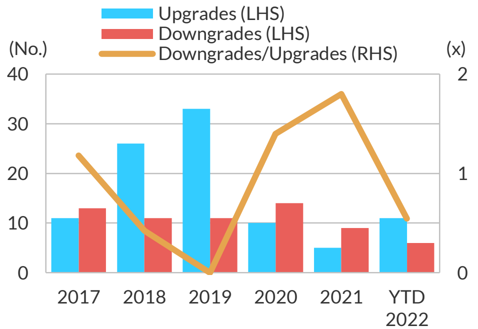
↑ Improving — High relevance. ↗ Improving — Moderate relevance. ↔ Neutral. ↘ Deteriorating — Moderate relevance.
↓ Deteriorating — High relevance. N.A. – Not a material driver of credit quality in the sector.
Source: Fitch Ratings

Public Power — Rating Outlooks



Note: Excludes pre-paid energy issuers.
Source: Fitch Ratings

Public Power — Rating Changes



Source: Fitch Ratings

Operating Cost Burden

Near-Term Operating Cost Pressures Build

Rising operating costs are expected to weaken operating margins and credit quality across the sector, absent timely cost recovery and decisive rate actions. Inflationary pressures alone are expected to push costs roughly 7% higher in 2022 and nearly 4% higher in 2023. Rising costs attributable to regional labor shortages and increasingly aggressive renewable energy mandates, along with spending necessary to protect systems against cyberattacks and the effects of climate change, will drive electric costs even higher. While Fitch expects the real price of electricity to remain relatively flat, we forecast nominal prices to rise 4.1% in 2023, marking the first-time prices rose by more than 4% three years in a row in over two decades.

Fuel Prices and Interest Rates Face Upward Pressure

Fitch expects energy prices to remain elevated through 2023, driving fuel and purchased power costs higher and reducing financial headroom across the sector. Our forecast assumption for U.S. natural gas prices is $5.00/thousand cubic feet (mcf) for 2023, down from $6.75/mcf in 2022, but still higher than levels observed in recent years. Fitch expects power prices to remain elevated as natural gas prices are a significant driver. Natural gas generation is expected to continue to account for 36% to 38% of electric supply over the near term. While coal generation is accounting for a declining share of electric supply, regional shortages and transportation challenges could add to cost pressures.

While interest rates remain low by historical standards and access to capital markets remain robust for the capital-intensive Public Power sector, upward pressure on interest rates is expected to increase financing costs and revenue requirements, significantly reducing benefits of refunding. Municipal power debt issuance earmarked for refunding fell to roughly 40% in 2022, down from 79% in 2015. Fitch expects this trend to continue as 10-year U.S. Treasury yields and U.S. Fed policy rates rise gradually through 2023 to 5.00% and 4.50%, respectively.

Capacity Concerns Emerge

Risks related to generating capacity constraints and energy shortfalls are emerging, raising the spectre of higher wholesale energy prices and "rolling blackouts". Extreme temperatures may drive record peak demand for electricity, while drought conditions, plant retirements and wildfire risks could challenge resource availability. Projected capacity needs to offset plant closures and meet growing demand are aggressive, and may be difficult to achieve, given lingering supply chain disruptions. The U.S. Energy Information Administration (EIA) reference case projects 2022–2025 capacity additions that are 50% higher than actual capacity added during 2018–2021.

What to Watch — Improved Operating Cost Environment

Operating costs are expected to remain elevated but should moderate beginning in 2024. However, a sudden, more favorable operating cost environment in 2023, including lower natural gas prices and interest rates, could shift the Outlook to Neutral. Alternatively, a more sustained high-cost environment would likely pressure the sector beyond what is currently factored.

What to Watch — Sustained Balance of Capacity and Demand

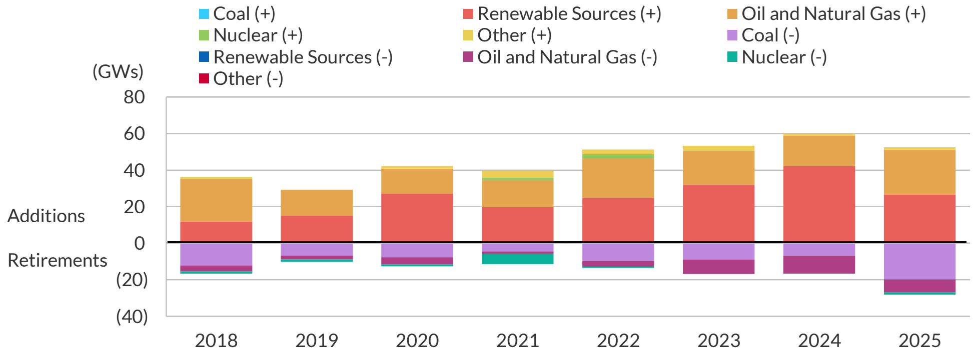
Increased constraints and shortfalls, as a result of accelerated plant closures or underdevelopment of new capacity, would further deteriorate the Outlook, whereas a sustained balance of capacity and demand would support an improvement to the Outlook.

United States — Forecast Summary

(%)	Annual Average 2017–2021	2021	2022F	2023F	2024F
GDP	2.1	5.9	1.9	0.2	1.6
CPI Inflation (Year-End)	2.5	7.0	7.0	3.6	2.7
Unemployment Rate	5.1	5.4	3.7	4.8	5.3
Policy Interest Rate (Year-End)	1.22	0.25	4.50	5.00	3.50

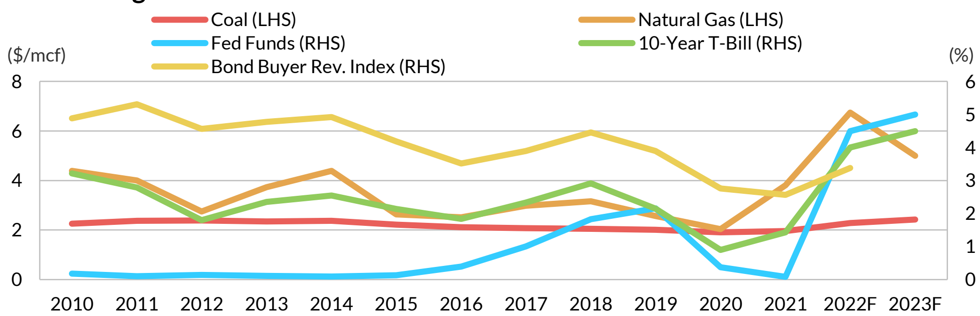
F – Forecast.
Source: Fitch Ratings.

Generating Capacity Additions and Retirements



Source: U.S. Energy Information Administration.

U.S. Average Cost of Fuel and Interest Rates



Mcf – Thousand cubic feet. F – Forecast.
Source: U.S. Energy Information Administration, U.S. Federal Reserve.

Affordability of Service

Weakening Trend Continues

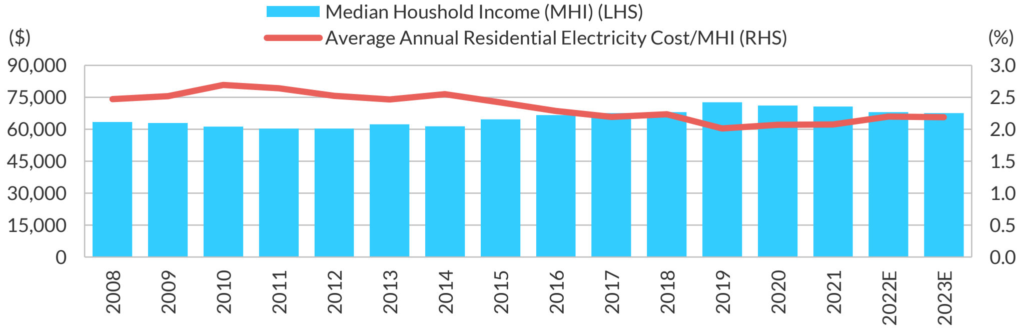
Fitch expects the trend of weakening affordability to continue in the near term, increasing rate pressures and threatening operating margins. While ratios are expected to vary and remain in line with historically favorable levels, sustained weakness could challenge credit quality across the sector.

We forecast residential electric costs to consume between 2.1% and 2.2% of median household income (MHI) in 2023, up from 2.0% in 2019, but modestly down from an estimated 2.2% in 2022, and well below the recent peak of 2.7% in 2010. The projected ratios factor declines in real MHI in 2022 and 2023, as wage growth is eroded by high inflation, and relatively stable real prices for electricity. Estimates for household consumption are also a factor and vary widely. Using U.S. EIA estimates, which call for a 3% reduction in usage, affordability improves to 2.1%. However, assuming no change in consumption, the ratio remains unchanged at 2.2%.

What to Watch — Demonstrated Stability in Affordability of Service

A sector Outlook revision to Neutral would require demonstrated stability in the affordability of electric service, whether through growth in real MHI, or a decline in the real cost of residential electric service, as a result of lower energy prices or sustained rates of lower consumption.

Residential Electric Cost to Median Houshold Income



E – Estimate.
Source: Fitch Ratings, U.S. Energy Information Administration, IHS Markit, U.S. Census

Additional Key Sector Issues

- Goals and commitments for 100% carbon-free electricity are becoming increasingly commonplace. Given the inherent technological risk and unknown path to achieving these goals, the effect on reliability, customer bills and credit quality remains a long-term concern.
- The increased frequency and worsening severity of extreme weather events will continue to be a threat to the sector as utilities work to expand and improve resiliency of electric and gas supply and contend with unforeseen expenses that can arise in the aftermath of severe weather events.
- A breach of critical utility assets from cyberattacks that halt service or require ransomware payments could negatively affect utility financial performance and could result in widespread public and private sector shutdowns.

Environmental Policy

State Regulations Will Continue to Dictate Limits on Emissions

The Biden administration will likely continue its more aggressive approach on federal polices related to climate change and carbon emissions. The administration has largely relied on executive orders to dictate policies to date, and the terms of enacted legislation are largely credit neutral. More aggressive rulemaking to advance the goal of a 100% clean energy economy remains unlikely to advance in the near term, given a divided U.S. Congress following the mid-term elections.

In the absence of federal legislation, 24 states and territories adopted renewable energy standards or goals that apply to public power or cooperative utilities. Moreover, policies aimed at limiting investment in thermal coal and mounting interest in Environmental, Social and Governance (ESG) investing are challenging access to capital, absent reduction strategies. Rising natural gas prices and renewable energy costs will make compliance strategies costlier but the near-term limitations appear achievable and the financial effects should be manageable.

What to Watch — Expanded Implementation of Emission Limits

The unexpected implementation of more aggressive nationwide carbon-reduction policies could pressure operating and capital costs and the affordability of electric service, contributing further to the Deteriorating Outlook. This is particularly the case for systems exempt from renewable energy standards or that operate in states with no standards.

Capital Investment

Spending Expected to Grow Gradually

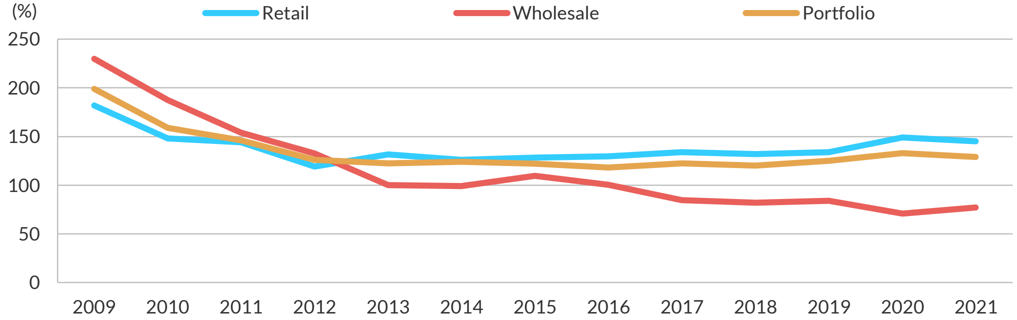
Fitch expects the rate of capital investment to gradually grow after years of lack luster performance, spurred by the increasing need for new capacity additions and ongoing maintenance, along with higher prices for labor and materials. While near-term capacity additions will remain dominated by new wind and solar generation, the recent approval of direct-pay tax credits should increase direct investment by not-for-profit utilities.

This may reverse the trend where capex by wholesale systems fell below depreciation in six of the last eight years. Spending by retail systems should be more robust, led by initiatives to improve grid resiliency. Overall, Fitch expects higher spending could increase debt and deplete cash reserves but considerable headroom exists to preserve credit quality in the near term.

What to Watch — Improved Capital Spending Efficiency

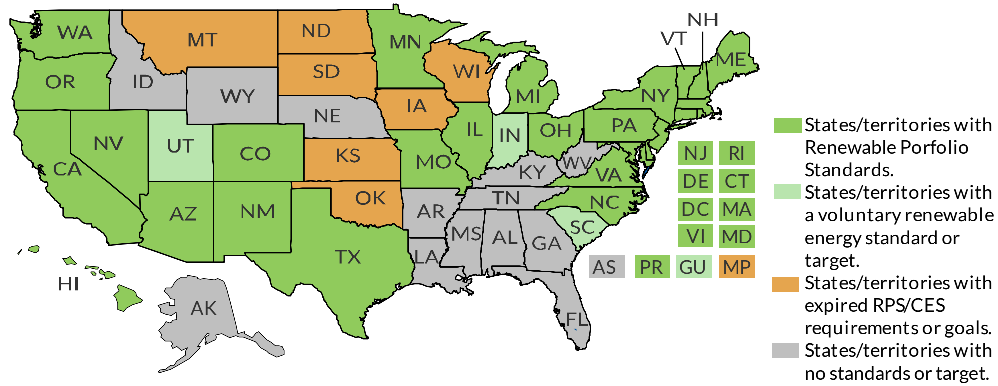
Improved spending efficiency as a result of lower commodity prices or more widespread labor availability through 2023 would contribute to an improved Outlook.

Capex/Depreciation and Amortization



Source: Fitch Ratings

Renewable Portfolio Standards or Voluntary Targets



RPS – Renewable Portfolio Standards. CES – Clean Energy Standard.
Source: National Conference of State Legislators

Outlooks and Related Research

2023 Outlooks
Global Economic Outlook (December 2022)
Rising Fuel Costs and Inflationary Trends Pressure Public Power (August 2022)
Public Power – Fitch Analytical Comparative Tool (FACT) – 2022 (June 2022)
U.S. Public Power – Peer Review (June 2022)
Reforms Could Stabilize Texas Public Power and Cooperative Rating Outlooks (Credit Profiles Improving One Year After 2021 Winter Storm Disruption) (March 2022)

Analysts

Kathryn Masterson
+1 512 215-3730
kathryn.masterson@fitchratings.com

Dennis Pidherny
+1 212 908-0738
dennis.pidherny@fitchratings.com