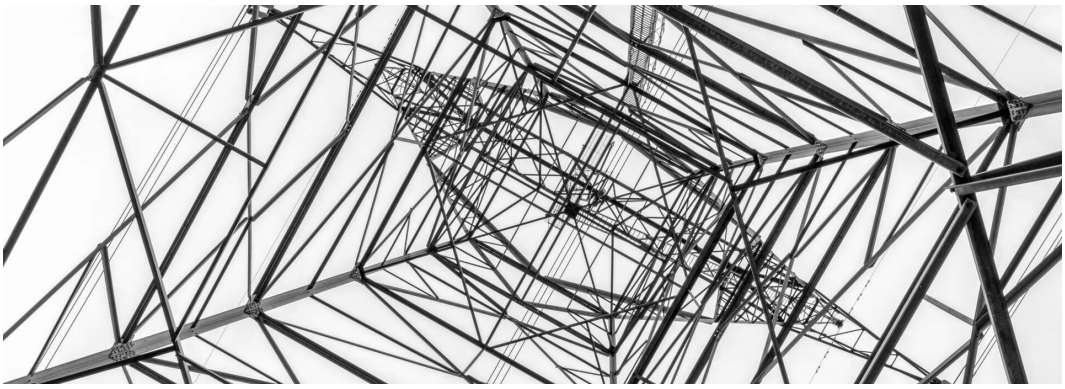
North America Regulated Utilities

Credit quality remains pressured

January 9, 2024

This report does not constitute a rating action.



What's changed?

Expansion of wildfire risks across Western North America.

Common equity issuance was significantly below our base case expectations.

Credit quality erosion. For the fourth consecutive year, downgrades outpaced upgrades. It is conceivable that 2024 may be the fifth.

What are the key assumptions for 2024?

High capital spending for North America's investor-owned regulated electric, gas, and water utilities.

Robust dividends at about $45 billion, reflecting a dividend payout ratio of about 60%.

Consistent access to the capital markets is necessary for the industry to fund its debt maturities and cash flow deficits.

What are the key risks around the baseline?

Timely recovery of prudently spent capital and operation and maintenance (O&M) costs is necessary for the industry to maintain credit quality.

Minimal financial cushion. About 35% of the industry is operating with limited ability to absorb unexpected events beyond their base case.

Inflation. S&P Global's economists expect the consumer price index (CPI) to decrease to below 3% by year-end 2024.

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Ratings Trends: North America Regulated Utilities

Chart 1

Ratings distribution

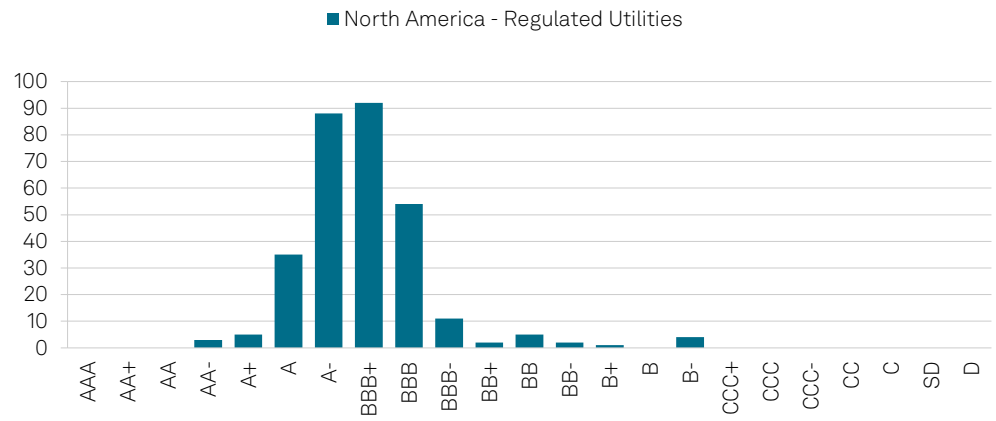


Chart 2

Ratings outlooks

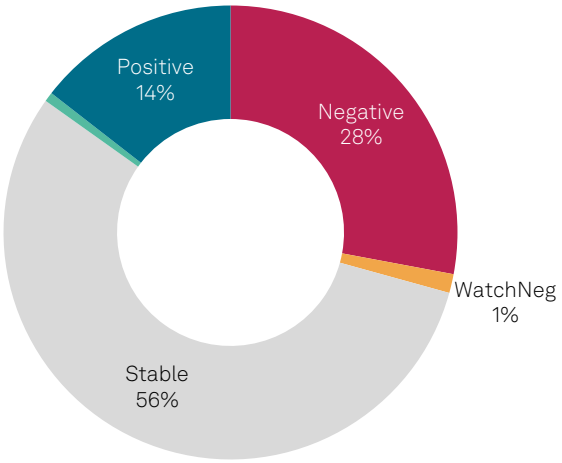
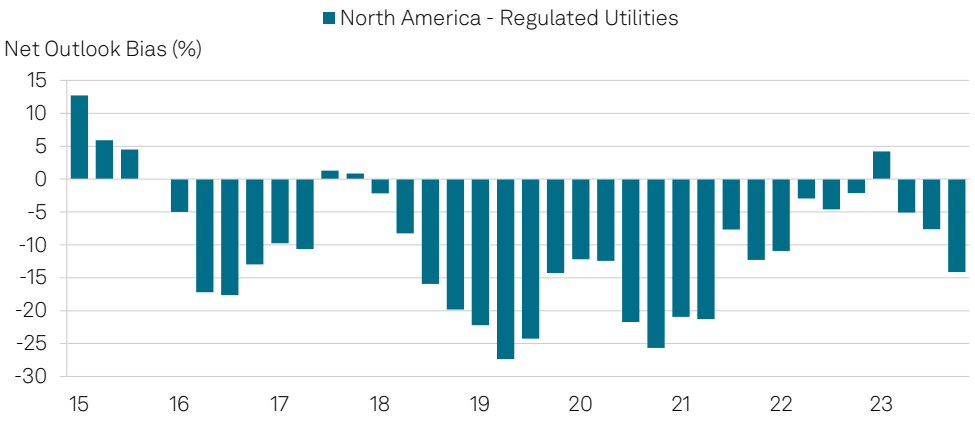


Chart 3

Ratings outlook net bias



Source: S&P Global Ratings. Ratings data measured at quarter-end.

Industry Credit Metrics: North America Regulated Utilities

Chart 4
Debt / EBITDA (median, adjusted)

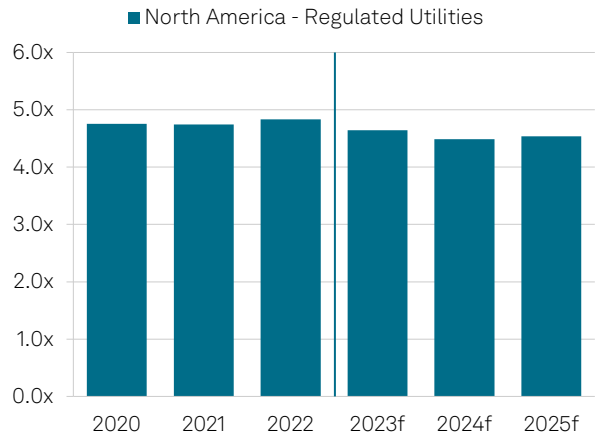


Chart 5
FFO / Debt (median, adjusted)

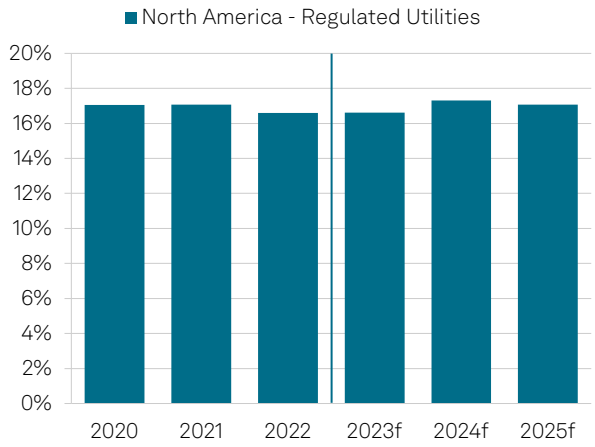


Chart 6
Cash flow and primary uses

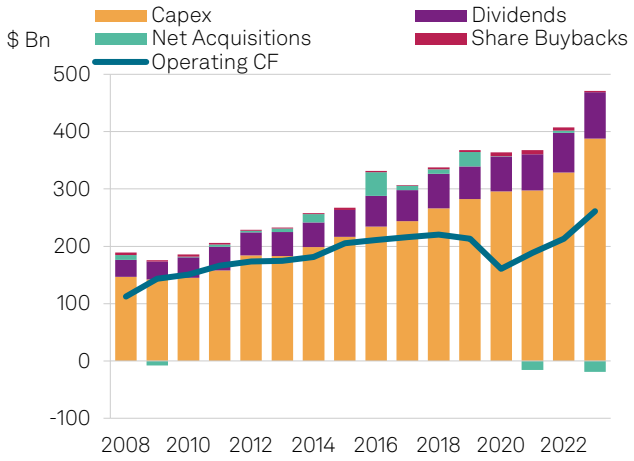
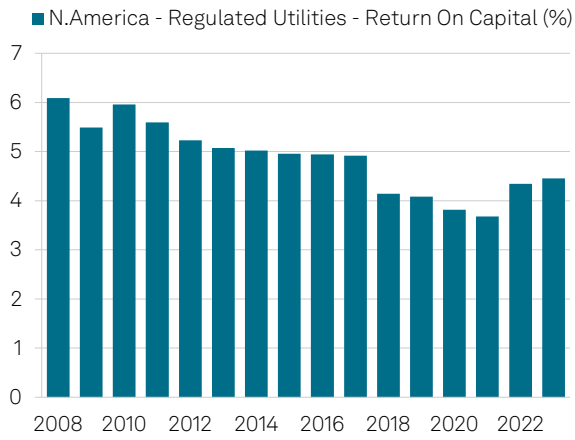


Chart 7
Return on capital employed



Source: S&P Global Ratings, S&P Capital IQ.
Revenue growth shows local currency growth weighted by prior-year common-currency revenue share. All other figures are converted into U.S. dollars using historic exchange rates. Forecasts are converted at the last financial year-end spot rate. FFO—Funds from operations. Most recent (2023) figures for cash flow and primary uses and return on capital employed use the last 12 months' data.

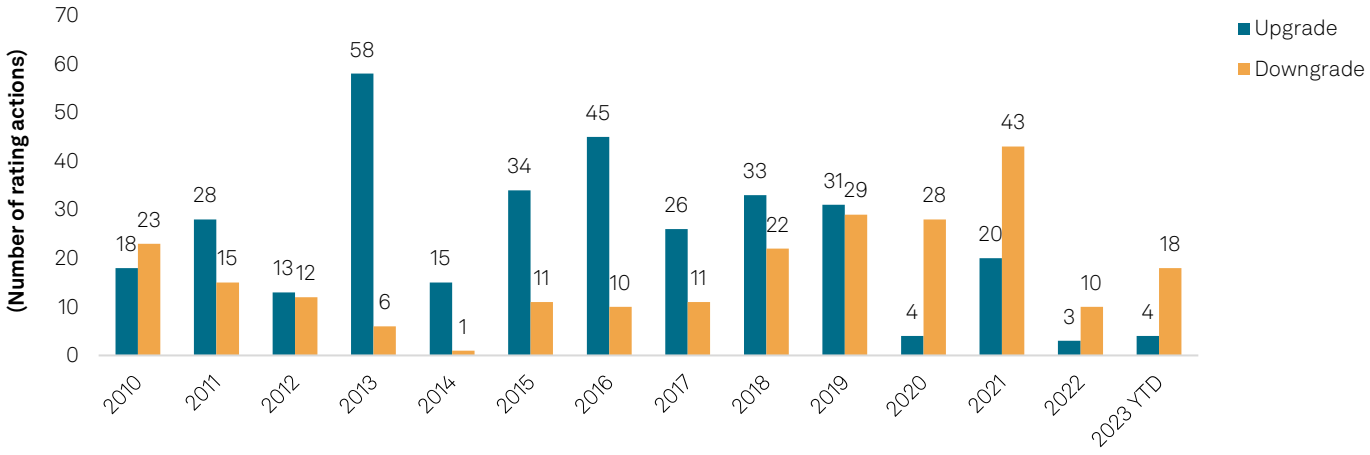
Industry Outlook

Ratings trends and outlook

For the fourth consecutive year downgrades significantly outpaced upgrades by more than 3:1 (see chart 8). Most of the 2023 downgrades were directly attributable to rising physical risks and rising leverage because of robust capital spending. We expect 2024 will remain challenging for the industry's credit quality, given the relatively high percentage of negative outlooks.

Chart 8

North America regulated utilities upgrades and downgrades



YTD—Year to date. Data as of Dec. 12, 2023. Source: S&P Global Ratings.

Main assumptions about 2024 and beyond

1. Climate change

Climate change is increasing the frequency of extreme and devastating hurricanes, storms, and wildfires, which is heightening credit risks for North America's investor-owned utilities (IOUs).

2. Record capital spending

While the industry's robust capital spending is necessary for prudent investments in safety, reliability, and energy transition, it is directly leading to high cash flow deficits. If these deficits are not funded with debt and equity in a balanced manner, credit quality will likely weaken.

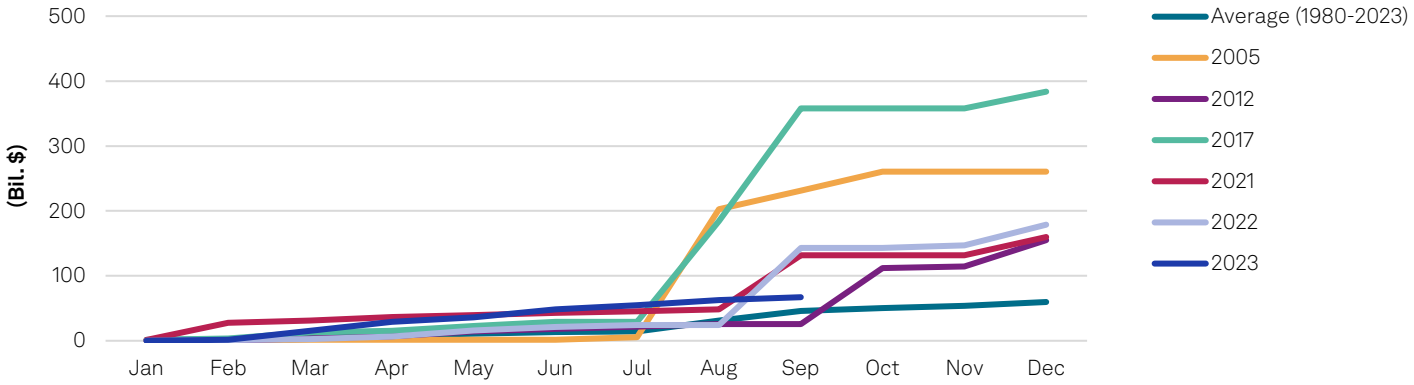
3. Management of regulatory risk

Given the significant capital spending, effective management of regulatory risk is important for the industry's credit quality. This includes constructive rate case orders, minimizing regulatory lag, earning its authorized return on equity, and managing the customer bill impact.

Utilities' exposure to physical risks is increasing. According to the National Oceanic and Atmospheric Administration (NOAA), on an inflation-adjusted basis, 2021 and 2022 represent two of the top five most destructive years for extreme weather events since 1980 (see chart 9). Our base case assumes these trends will persist, magnifying physical risks for the utility industry.

Chart 9

U.S. billion dollar weather disaster year-to-date event cost (CPI-adjusted)



Source: National Ocean and Atmospheric Administration.

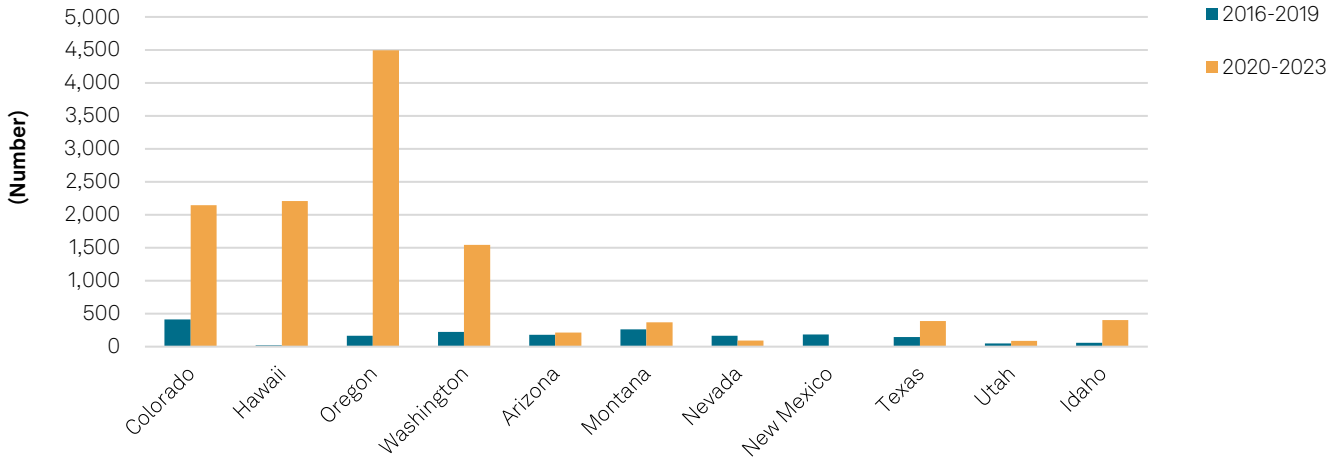
Warmer temperatures increase the humidity, leading to stronger winds and more-devastating tropical storms and hurricanes. Also, drier and hotter weather is a primary cause for more-severe wildfires--as temperatures rise, the vegetation dries up and the landscape becomes more combustible. When high winds are added, the probability of a catastrophic wildfire significantly escalates. As such, areas designated as high-fire-risk have grown across the U.S. This is already taking a toll on credit ratings.

For example, during 2023 we lowered the ratings on Hawaiian Electric Industries Inc. by multiple notches after the most destructive wildfire in Hawaii's history, with nearly 100 fatalities and about 2,200 structures damaged or destroyed. Also during 2023, an Oregon jury awarded 17 plaintiffs in a 2020 wildfire-related class action lawsuit against PacifiCorp about $5.3 million per plaintiff, which was materially above our base case of about $1 million per structure. The jury also found that a broader absent class affected by the fires could bring claims against the company. Accordingly, we downgraded PacifiCorp by two notches and revised the outlook to negative.

Furthermore, since 2020 the number of structures destroyed by wildfires in Colorado, Hawaii, Idaho, Oregon, Washington, and Texas increased by more than 100% compared to the 2016-2019 period (see chart 10). Meanwhile, Arizona, Montana, and Utah have each experienced increases of at least 20% over the same timeframe.

Chart 10

Structures destroyed by wildfires



Source: Headwaters Economics and National Fire and Aviation Management FAMWEB.

Wildfire mitigation plans. In light of these trends, we expect IOUs--especially those in the western U.S.--will develop detailed wildfire mitigation plans that reduce damages, minimize litigation risk, and expand capabilities for cost recovery. While it may take considerable time and investments for the industry to fully implement these strategies, the solutions are largely predicated on already-developed and in-use technologies.

System hardening is one investment that improves resiliency, reducing damages and risk. Because our modern economy is so dependent on electricity, system hardening also allows for the faster restoration of operations, decreasing total economic impacts. While system hardening is often expensive and can take many years to fully implement, its long-term benefits typically outweigh its shorter-term costs. Examples include undergrounding powerlines, adding cover conductors--which is the insulation of bare electrical wires with durable long-lived materials that reduce the probability of an electrical fault or spark--and replacing wood poles with steel and concrete.

To reduce the likelihood of a catastrophic wildfire, many utilities have incorporated weather stations that collect data to forecast weather conditions, including high-wind events. Some have incorporated artificial intelligence (AI) and machine learning into their data analysis, high-definition (HD) cameras, satellite and aerial imaging, remote sensing, and drones to enhance their forecasting capabilities. Utilities have also improved communication with state agencies and fire departments, coordinating specific locations that have either encountered or could be highly susceptible to a wildfire.

Critical to reducing wildfire risks is the implementation of a public safety power shutoffs (PSPS) program. PSPS is the proactive de-energizing of power lines in extreme weather conditions, especially in high-wind events. The decision to de-energize is extraordinarily challenging because it could have serious health and safety ramifications for some customers. Accordingly, an effective PSPS program establishes a consistent protocol when drastic measures are required that is approved by regulators and adequately communicated well in advance of the event. We view a PSPS program that establishes such a formal process as credit-supportive for IOUs.

Another crucial component of wildfire prevention is vegetation management, which is the removing or modifying of live and dead vegetation to reduce the potential ignition and spread of wildfire. This ongoing maintenance is essential for reducing the likelihood of debris coming in contact with powerlines, causing a spark that could lead to a wildfire. To further reduce wildfire risks, utilities have implemented enhanced power safety setting systems (EPSS) that automatically shut off power within a tenth of a second if they detect a potential ignition source. Such systems include downed conductor detection, early fault detection, open phase detection, and partial voltage force-out.

Because of the different service territories and topographies, we don't expect the strategies implemented by utilities will be uniform. As such, we expect utility wildfire mitigation plans will be customized but with the consistent goal of reducing risk.

Litigation risk. Because utilities operate under potentially hazardous conditions that include safety as well as environmental risks, they have always been susceptible to litigation. However, in recent years, as the climate changes and wildfires increase, litigation and class action civil lawsuits against utilities have intensified. Currently, plaintiffs have filed civil lawsuits against nine utilities because of wildfires. Additionally, an increasing number of class action lawsuits have been filed against water utilities regarding PFAS (per-and poly-fluoroalkyl) contamination. Should the industry's litigation risk continue to increase, credit quality would likely suffer.

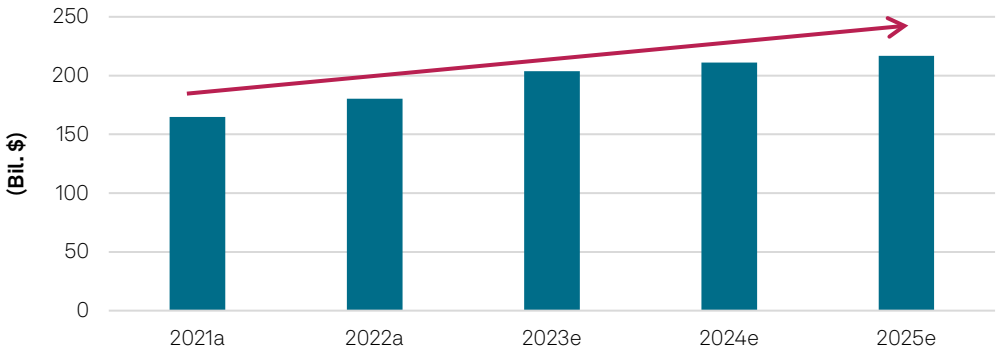
Securitization. More recently, utilities have increased their use of securitization, which we assess as supportive of credit quality. Securitization allows for the issuance of debt secured by a

non-bypassable charge to the customer's bill, allowing the utility to fully recover its costs at a lower interest rate for customers. Because the debt is secured by the high likelihood of customers paying their bills, the associated interest costs are typically lower. We often deconsolidate such debt, resulting in stronger IOU credit measures.

Record capital spending. The industry's capital spending on safety, reliability, and energy transition continues to grow at record levels. We expect the 2023 capital spending for North America's electric, gas, and water utilities to approximate $205 billion and rise to about $210 billion and $215 billion in 2024 and 2025, respectively (see chart 11). Under our base case, we expect that the industry's capital spending will continue to grow for at least the next decade.

Chart 11

North America regulated utilities' rising capital expenditures



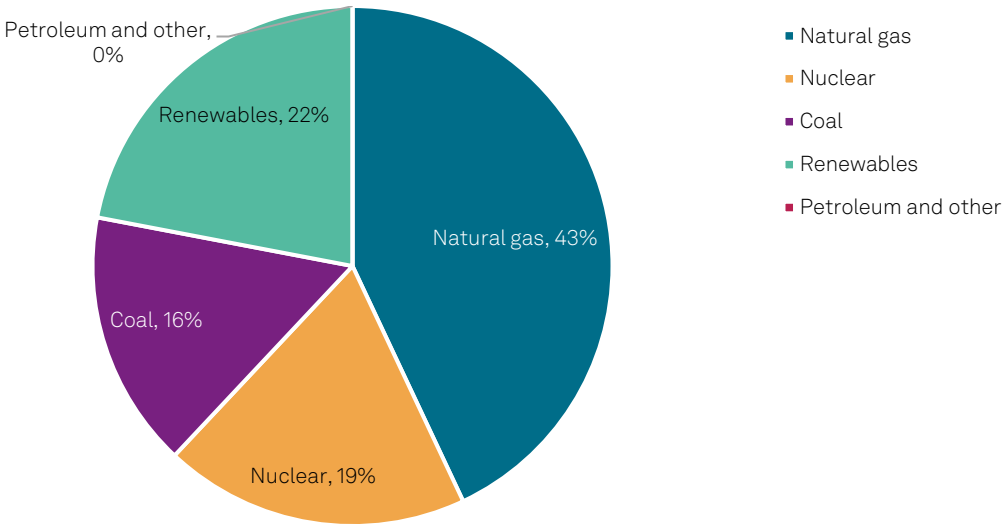
a—Actual. e—Estimate. Data as of Nov. 8, 2023. Capital expenditures represent North American investor-owned electric gas, and water utilities. Source: S&P Global Ratings.

Energy transition. The industry's reliance on coal generation has decreased by about 60% over the past decade, and we expect the vast majority of North America's IOUs will close their remining coal generation by 2035. This transition will reduce the industry's environmental risks but also requires a thoughtful multi-decade strategy to expand renewable energy and battery storage, while simultaneously aligning depreciation and the retirement of coal generation to avoid stranded assets.

Renewable energy will eventually account for more than 50% of the industry's generation portfolio. While renewable energy only accounts for about 25% of the industry's electric generation portfolio, over the next decade renewable energy will likely double (see chart 12). The industry's funding of renewable energy will benefit from the Inflation Reduction Act (IRA), which includes significant tax incentives for renewable energy and permits for the transferability of such credits. Transferability allows tax credits that cannot be used on a company's own consolidated tax return because it has insufficient income to be transferred to a third-party. We expect the IOUs will be among the primary beneficiaries of these tax credits. Ultimately, we expect utility regulators will mandate that transferred tax credits are refunded back to customers, and as such we expect the growth of renewable energy will likely be less impactful on the customer bill.

Chart 12

2023 U.S. generation (through August)



Data as of Dec. 12, 2023. Source: U.S. Energy Information Administration.

Inflation. Although the rate of inflation has slowed from 2022 levels, it remains elevated relative to historical levels. We anticipate this will result in higher O&M costs that could weaken financial performance. While some utilities have interim mechanisms that reduce the regulatory lag, most will have to file rate cases on a more frequent basis should inflation remain high over the longer term.

Because of rising costs and higher capital spending, rate case filings have significantly increased. In 2019 and 2020, U.S. annual rate case filings averaged about $6 billion but have since increased by 2.5x to an annual average of about $16 billion. This elevates the industry's reliance on managing regulatory risks. Additionally, because about 35% of the industry is managing with only minimal financial cushion--reflecting funds from operations (FFO) to debt that is less than 100 basis points above the downgrade threshold--the ability to absorb unexpected events beyond their base case is limited. Accordingly, should rate case filings be delayed or rate case orders be less than constructive, financial performance and credit quality could weaken.

Effective management of regulatory risk. We assess all of North America's regulatory jurisdictions as credit supportive or better, reflecting the industry's generally stable and predictable cash flows (see chart 13). Over the past decade, most of the industry has implemented some combination of decoupling, formula rate plans, forward test years, multiyear rate cases, interim rates, and regulatory riders to significantly improve cash flow stability while minimizing regulatory lag, which is the timing difference between when a utility incurs costs and when it's recovered from ratepayers. Our view of the industry's regulatory constructs supports the industry's mostly investment-grade ratings despite the industry continuing to operate with material cash flow deficits.

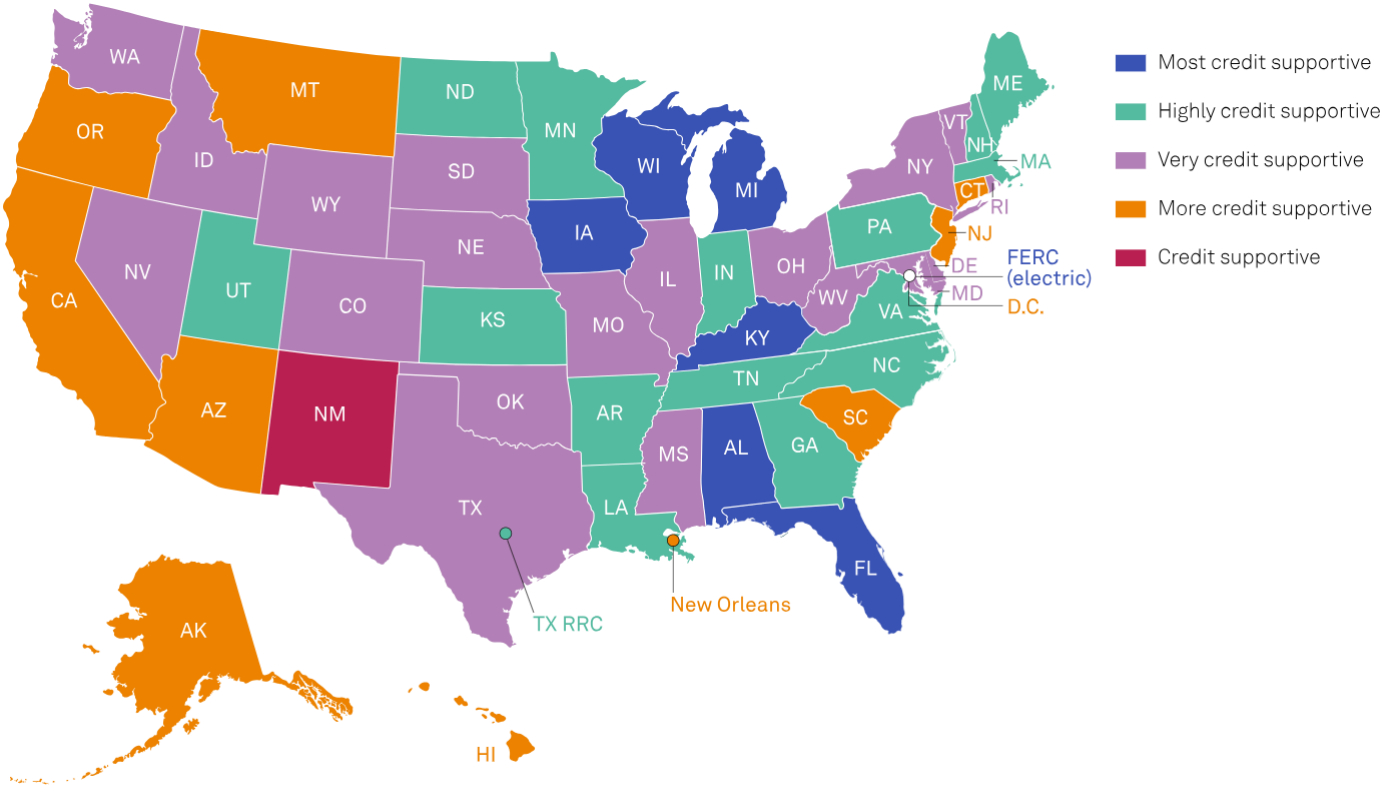
To manage regulatory risk, the industry must maintain the affordability of the customer bill. While the average U.S. electric bill accounts for less than 2.5% of the median U.S. household income, the 2022 average electric bill increased by about 13% primarily because of rising commodity prices. In 2022, the average monthly price for natural gas was $6.40/MMbtu, or nearly double the average price for the prior 13 years. Subsequently, prices have retreated to about $2-$4/MMbtu. Had commodity prices remained high, we believe it would have weakened the industry's ability to manage regulatory risk, pressuring credit quality.

In 2023, several utilities experienced negative regulatory developments that could be indicative of longer-term risks. For example, earlier in 2023 we revised the outlooks on most of Ontario's local distribution companies (LDC) regulated by the Ontario Energy Board to negative, primarily reflecting the increasing regulatory lag associated with transmission costs and wholesale market rates. The lag affected the LDC's earned return on equity and financial performance.

Chart 13

Regulatory assessment by state

As of November 2023



Source: S&P Global Ratings.

More recently, we revised the outlooks on most of Connecticut's utilities to negative, reflecting the possibility of less cash flow predictability. In June 2023, Senate Bill 7 was signed into law, which gave Connecticut's Public Utilities Regulatory Authority (PURA) greater latitude in determining whether companies over-earn, prohibits PURA from reauthorizing the electric system improvements charge, and allows PURA's discretion over the use of decoupling. We believe this law decreases utilities' cash flow predictability and increases regulatory lag. Additionally, recent 2023 PURA rate orders for Aquarion Co. and The United Illuminating Co. (UI) significantly deviated from our base case expectations, increasing regulatory lag for these utilities. These rate orders did not approve the multiyear rate plans filed, and included material disallowances, penalties for UI, and below-average returns on equity. Should these risks persist, it could result in an increase of regulatory lag and a weakening of utility cash flow predictability for all of Connecticut's regulated utilities, which would be negative for credit quality.

Credit metrics and financial policy

Despite our expectations that the industry's 2024 capital spending will increase to about $210 billion, we expect generally consistent financial measures, reflecting FFO to debt of about 15%. Our base case is predicated on the industry funding its approximate $85 billion of cash flow deficits with about $40 billion in asset sales and equity issuance. For 2023 the industry's actual equity issuance was considerably below our expectations, resulting in weakening of financial performance. Should this trend persist in 2024, it would likely pressure credit quality.

Key risks or opportunities around the baseline

1. Interest rates stabilize.

Since 2022, rising interest rates have increased costs for North America's IOUs, weakening financial performance and credit quality. Our economists expect federal funds rate will peak in 2023 and then modestly decrease in 2024. Accordingly, we generally expect that as interest rates stabilize it will put less pressure on IOU's financial performance and credit metrics.

2. Sales growth will return.

Electricity sales growth stagnation has challenged the North America investor-owned electric regulated utility industry's ability to manage regulatory risk and credit quality. Over the next three years we expect sales growth trends to improve.

3. Complex projects increase risk.

During 2023, several offshore wind projects were delayed or canceled because of rising costs for these more challenging projects. To maintain credit quality, we generally expect the industry will focus on lower-risk and smaller projects.

Interest rates. IOUs have considerable near-term debt maturities that must be refinanced, and rising discretionary cash flow deficits that are mostly fund with debt. Because of regulatory lag, rising interest rates weakens financial performance. S&P Global economists expect the federal funds rate will peak in 2023 at about 5.5% and then modestly decrease to about 5.3% in 2024. Accordingly, as interest rates stabilize it will put less pressure on the industry's financial performance.

Spreads narrowing. Despite the 10-year treasury increasing by about 300 basis points over the last three years to about 4.5% from about 1.5% at year-end 2020, the average authorized return on equity has essentially remained flat at about 9.5% over this same timeframe. The narrowing of this spread directly affects the industry's financial performance. Most IOUs employ double leverage, issuing significant debt at both the holding company level and at the operating utility. The industry is reliant on cash flows from its operating utilities to service its debts at the holding company. As these spreads narrow, financial performance weakens, pressuring credit quality.

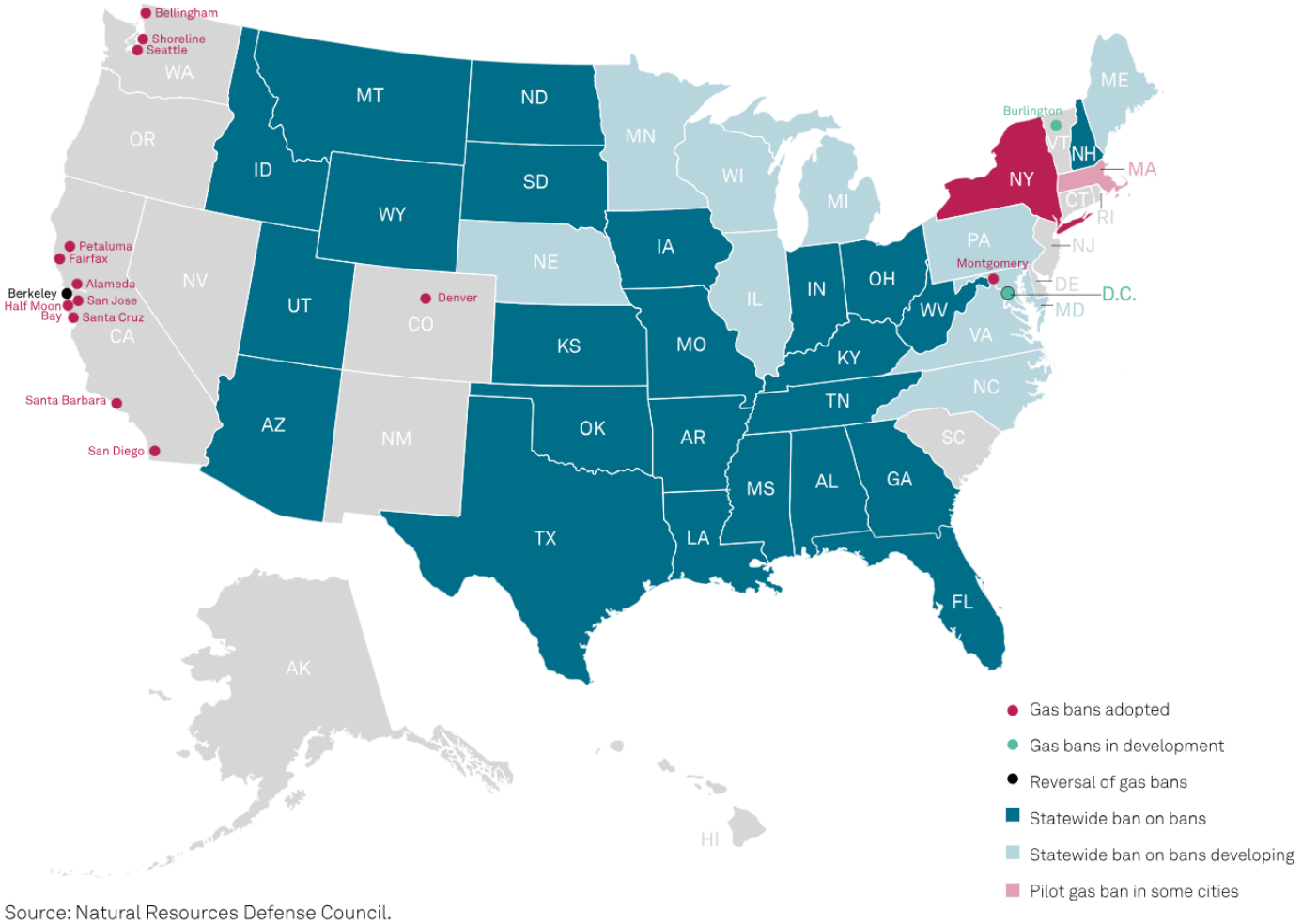
Sales growth. Electricity sales growth has been flat to negative over the past decade because of conservation, challenging North America's IOU's credit quality. Sales growth increases revenues, EBITDA, and FFO without necessitating a rate increase. This enhances the industry's capacity to maintain its financial measures without depending on a regulator's consistently constructive rate case order. We expect sales to grow in the short term, driven by the onshoring of manufacturing and data centers, and over the medium-term because of increased electrification and electric vehicles. Overall, we view this development as supportive of the industry's credit quality.

Full electrification. We expect the longer-term credit quality for some natural gas local distribution companies (LDC) will become increasingly challenging, especially for utilities that

operate in warmer climates or whose cities/states have banned new gas connections, severely limiting the growth of the natural gas LDCs. While most of the city bans have occurred in the Western U.S. states, in 2023 New York State banned natural gas and other fossil fuels in most new buildings (see chart 14). Offsetting some of this risk is that a near-majority of states have imposed a ban on the ban of new gas connections. Furthermore, gas LDCs are attempting to reduce their environmental risks by decreasing their carbon footprint through investing in renewable natural gas, blending hydrogen, and initiating various hydrogen infrastructure projects.

Chart 14

Ban on new gas connections



Source: Natural Resources Defense Council.

Technology. The industry generally embraces technology to reduce its O&M costs by leveraging in-use technologies, a practice we view as generally prudent. Examples include the industry's wide use of drone technology that reduces the cost of pole and wire inspections; battery technology, which reduces fuel costs; and advanced metering infrastructure, which reduces labor costs.

Currently, many gas LDCs and electric generation utilities are testing the blending of hydrogen with natural gas to further reduce carbon emissions. Many of these pilot programs are looking to reduce the cost of hydrogen and are testing the maximum allowable hydrogen that would be compatible with downstream appliances. We expect the industry will benefit from hydrogen tax

credits or other government grants allowed under the IRA, likely incorporating about 5%-10% of hydrogen by 2035.

However, periodically the industry invests in higher-risk larger projects that rely on newer technologies, often resulting in a weakening of credit quality. For example, while Southern Co.'s recent commercial operations of nuclear power plant, Vogtle Unit 3, was a significant achievement, we already downgraded the company by two notches since it began pre-construction activities in 2009, reflecting the higher construction risks associated with this complex project. Also, we expect Ørsted--which partnered with many U.S. utilities to build offshore wind in the U.S.--to write-off as much as $6 billion associated with these higher risk projects. Additionally, we downgraded Eversource Energy by two notches since it announced its offshore wind power generation joint venture, reflecting the higher risks associated with this newer technology and longer-term project. Overall, we expect the industry will reduce its technological risks by generally maintaining its focus on smaller and lower risk projects.

Alternative minimum tax. The IRA of 2022 includes a 15% corporate alternative minimum tax (AMT) that we expect will weaken the financial measures of about 10% of the utility industry. The AMT is only applicable to corporations with at least $1 billion of income. Most fully integrated large utilities with a growing or significant renewable generation portfolio will generally be able to use the renewable tax credits to minimize or eliminate the AMT. However, the financial measures of large electric transmission and distribution utilities, gas LDCs, and large water utilities could all be weakened by the AMT.

Cybersecurity. The recent 2023 suspected cyberattacks against water and wastewater treatment facilities in Texas and Pennsylvania underscores the industry’s ongoing cybersecurity risks. Because critical infrastructure assets tend to have higher exposure, the industry’s ongoing vigilance in this area is critical to maintaining credit quality.

Municipalization. Municipalization is the transferring of a privately owned utility to a public ownership. While such occurrences are infrequent and rare, in 2023 two ballot proposals explored these options. In both instances, the city of El Paso, Texas, and the state of Maine soundly rejected such proposals. Other cities, including San Diego, continue to explore these alternatives and we will continue to monitor these developments, including their impact on credit quality.

Related Research

- North American Utility Regulatory Jurisdictions: Some Notable Developments, Nov. 10, 2023
- A Storm Is Brewing: Extreme Weather Events Pressure North American Utilities' Credit Quality, Nov. 9, 2023
- Regulatory Friction Is Constraining Cost Recovery For North American Investor-Owned Utilities, Nov. 6, 2023
- Plugged In: How EVs Supercharge Growth For North America's Investor-Owned Electric Regulated Utilities, Oct. 31, 2023
- A Closer Look At The Three Major California Investor-Owned Electric Utilities Amid The 2023 Wildfire Season, Oct. 24, 2023
- Credit FAQ: What's Behind Our Recent Actions On Investor-Owned Utilities In Connecticut?, Sept. 28, 2023
- Record Capex Fuels Growth Along With Credit Risk For North American Investor-Owned Utilities, Sept. 12, 2023
- Although Commodity Costs Are A Pass Through For Utilities, They Still Affect Credit Quality, Sept. 6, 2023