Global Listed Infrastructure

AI is the 1% inspiration, utilities are the 99% perspiration

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US utility earnings forecasts are increasing owing to unprecedented demand for power

A wave of electric demand requires new generation investment from renewables paired with gas

Trump administration likely to alter – not repeal – the IRA but 6–12 months of uncertainty remain

Recently I attended the largest US utility conference, the 2024 Edison Electric Institute (EEI) Financial Conference, in Hollywood, Florida. I met with management teams from 26 regulated electric and gas utility companies.

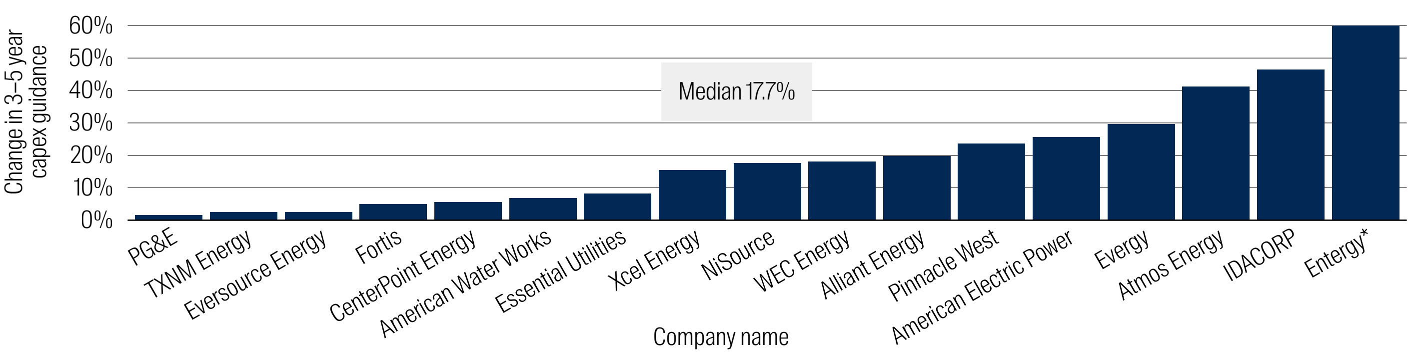
Tidal wave of load growth[1]

The key theme of the conference (and of the year) was the unprecedented wave of power demand in the US being driven by data centers/AI, electrification and onshoring of manufacturing. This load is coming now and it is coming fast, requiring significant investment by utilities to prepare the grid for the transmission, distribution and generation upgrades that will be needed to meet the forecasted demand. This investment is pushing utility regulated asset bases[2] higher, leading in turn to upwards pressure on earnings forecasts and in some cases causing utilities to revise their long-term EPS CAGRs[3] higher.

To put this into perspective:

- Entergy's industrial sales growth rate increased from 8–9% to 11–12%, leading the company to revise its overall EPS CAGR from 6–8% to 8–9%
- IDACORP increased its 5-year capital plan by 46%, which equates to a 17% CAGR in its regulated asset base over that period
- American Electric Power upgraded its 5-year capital plan by US$13 billion or 26%, with its regulated asset base CAGR increasing from 7% to 8% and EPS CAGR going from 6–7% to 6–8%
- Alliant Energy recently increased its 5-year capex plan by 20%, giving its regulated asset base a 10% CAGR
- Evergy Inc upgraded its capital plan by 29%, pushing its regulated asset base CAGR up from 6% to 8%
- Xcel Energy increased its EPS CAGR from 5–7% to 6–8%, driven by a US$45 billion capital plan over 5 years (with an additional US$20 billion-worth of incremental opportunities also identified).

Q3/EEI updates to 3–5 year utility capex plans



*Entergy compares 2022 – 2026E provided in its 2022 Analyst Day vs 2024 – 2028E provided in Q3 2024.
Source: Wells Fargo Securities and company reports as at 12 November 2024.

1 Increase in demand for electricity over time.
2 The value of utility assets (for example power generation assets and transmission/distribution grids) upon which a utility is allowed to earn a return.
3 Earnings Per Share, Compound Annual Growth Rate.

This theme is being seen across the sector and I only expect it to continue. It is fair to say this is a period of explosive growth, given that until recently, utility load forecasts typically ranged from flat to up to 1% annually. We are no longer dealing with a theoretical idea that may come in the 2030s; investment is happening now, with contracts being signed today with large technology, semiconductor and manufacturing companies.

Being a utility nerd at EEI

Source: First Sentier Investors, November 2024.

Election

The EEI conference was timely, coming just four days after the US presidential election outcome. Consensus from the utilities I spoke with was that while the Inflation Reduction Act (IRA)[4] will not fully disappear, it won't come out unscathed. Utilities were confident that a full repeal won't happen as currently over 75% of the associated benefits go to Republican-leaning states. Many counties where renewable assets are being operated are rural and Republican leaning, which are benefiting from the jobs and taxes they bring. A utility CEO also stated "*if they unwind the IRA and remove support for renewables, they are basically giving up on the AI race*" as these assets play a crucial role in powering data centers/AI. The utilities I spoke with felt that the key IRA areas of risk would be Electric Vehicles, green hydrogen and offshore wind (which just happen to be primarily located in Democrat-leaning states).

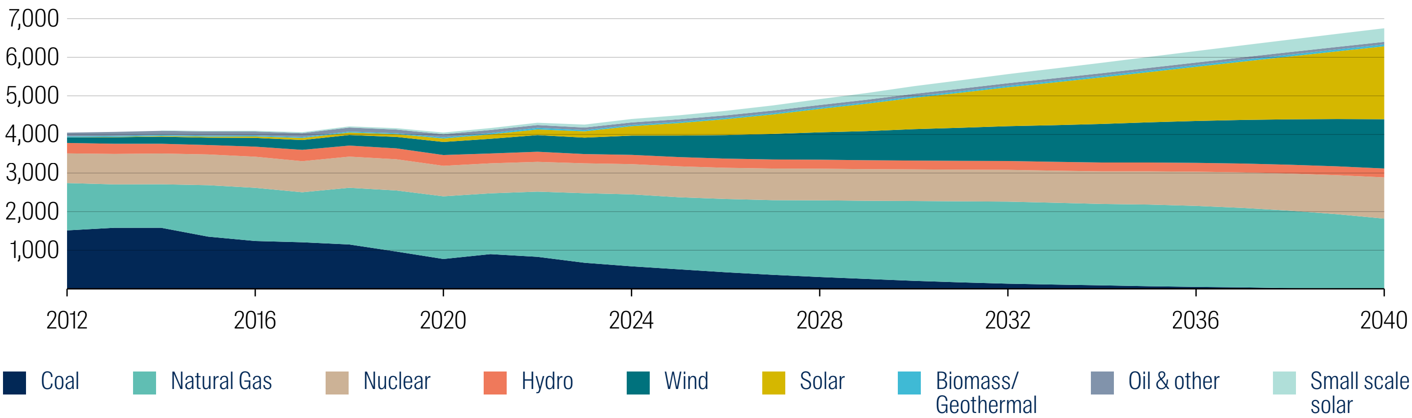
Renewables developers and US utilities who are investing in new renewable generation benefit from the tax credits that are allowed through the IRA. While we expect the tax credits for solar, wind and batteries to remain unchanged, there is likely to be a 6–12 month period of uncertainly until a final funding bill is legislated on this. In the meantime, tax credits on existing, already-operating renewables assets and plants under construction are essentially 'safe harboured' and will not be impacted. In fact, the largest renewables developer in the US, NextEra Energy, has indicated that its entire renewable investment program to 2029 is already safe harboured.

Generation

Owing to the amount of demand being driven by data centers, AI, onshoring, manufacturing and electrification, substantially more electricity generating capacity is required on the grid, NOW. This situation is complicated by ongoing coal plant retirements.

While renewables plants are coming online to replace some of this generation, their base load capacity is much lower because of their dependence on weather/seasonality. The rhetoric surrounding natural gas generation has changed from helping the grid to transition, to being able to back up renewables and provide reliable energy for all the demand that is coming. New gas plants have recently been announced in Texas, Louisiana and Kansas. This trend is expected to continue. Entergy, NextEra Energy, DTE Energy and Evergy are all currently building out new natural gas-fired power plants.

US electricity generation output by fuel (Terawatt hours)



Source: First Sentier Investors as at 30 September 2024.

4 The 2022 Inflation Reduction Act (IRA) is a significant piece of Biden legislation which includes tax credits and incentives for the development and deployment of renewable energy projects. President-elect Trump has expressed scepticism towards the IRA.

Nuclear power generation

Nuclear is the only form of electricity generation that provides the holy trinity of energy – reliability, affordability and sustainability (i.e. zero carbon emissions). These characteristics, combined with bipartisan political support and perfect load matching with Big Tech's data centers, have seen the value of nuclear power generation assets increase significantly over 2024. Technology companies have become a key driver of accelerating electricity demand via data centers. As a result, nuclear power's carbon-free, 24/7 reliable electricity is much sought after. Technology companies' sustainability goals have become part of their social licence to operate, meaning that they prefer their data centers to run on carbon free (or at least carbon-lite) electricity.

US utilities are now seeking to determine whether Small Modular Reactors (SMRs) can enable them to ramp up nuclear capacity without the considerable time and cost associated with building a traditional reactor. With a maximum output of 300 Megawatt electric (MWe) or less, SMRs are designed using modular technology, meaning they can be produced at scale with faster construction times. SMRs could replace the need for gas-fired power generation as a backup for renewables given that they are also a source of dispatchable 24/7 energy, with the added bonus of being carbon free.

Duke Energy has recently started including SMRs in their long-term generation mix forecast, where they will begin to contribute in the 2030s and then take share from gas through to 2050. Duke has selected Belews Creek, North Carolina as the site for their first SMR. By 2035, they plan to build a 600MW SMR on the site which is currently a coal plant. Dominion Energy has also selected a site at North Anna, Virginia for its first SMR. US utilities have advanced SMRs more in the past 12 months than in the last 12 years. The significant wave of demand that is coming will de-risk the buildout, with large tech customers already signing up to PPAs or through direct equity into plants. We believe this theme is set to continue.

Conclusion

The US utility sector is upgrading its investment and earnings forecasts. Capital will be required to generate more electricity, transmit more electricity, harden the grid, smarten the grid and prepare the grid for the upcoming load growth. There is no shortage of opportunities for utilities to deploy capital, leading to increased growth rates in a previously lower growth sector. These upgrades are happening now. Risks are clearly balanced to the upside!

Source: First Sentier Investors and company reports as of 12 November 2024.

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