Will new data centers lead to value creation for US regulated electric utilities?

Maple-Brown Abbott
Global Listed Infrastructure
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Andrew Maple-Brown
Co-Founder and Managing Director
Maple-Brown Abbott
Global Listed Infrastructure
LinkedIn

Summary

- **Huge Investment Opportunity for Regulated Utilities:** The rapid expansion of data centers is a transformative opportunity for US regulated electric utilities. For example, Meta's $10 billion Louisiana data center build – its largest in the world – requires 2GW of electricity and will drive $3.75 billion in investment by Entergy Louisiana. This alone increases Entergy Louisiana's rate base by over 20%, showcasing the scale of impact from just one project.
- **Proof of Market Confidence:** Entergy's stock surged 15% following the announcement of the Meta data center project and its broader $7 billion increase in capital expenditures. We consider that this market response underscores investor confidence in the ability of regulated utilities to execute transformative projects that drive shareholder returns while managing customer costs.
- **Innovative Customer Agreements Drive Shareholder Value:** Entergy's 15-year agreement with Meta in our view ensures full cost recovery for new infrastructure while moderating costs for existing customers. This deal reduces customer bill growth to 3.5% annually (down from 4%). The success of this agreement sets a compelling blueprint for other utilities managing similar high-demand growth from data centers.
- **Accelerating Long-Term Growth for Utilities:** In our view, data center growth further solidifies the positive outlook for US regulated utilities. With demand for renewable energy, energy storage, and grid modernization already driving investment, the data center boom accelerates electricity demand and investment needs. Portfolio holdings[1] like Entergy, NiSource, Ameren, and Dominion are positioned to benefit disproportionately due to their scale and ability to support these high-capacity infrastructure requirements through not just transmission and distribution but new generation capacity too.

Background

The year 2024 may best be remembered as the year that AI hype went mainstream. The stock price performance started in 2023 for direct beneficiaries like Nvidia and has progressively spread to related sectors through 2024.

From an infrastructure perspective the key impact has been on power markets, as the challenge in providing sufficient power to support the needed growth in data centers has become very apparent. Independent Power Producers, who own unregulated power generation facilities, have been key beneficiaries of the tightening power markets, however these companies sit outside Maple-Brown Abbott's definition of infrastructure as they do not possess the predictable and stable cashflows that we believe infrastructure assets should provide, due to their direct exposure to power and commodity prices.

1 As at 18th December 2024.

Maple-Brown Abbott
T +61 2 8226 6200
maple-brownabbott.com
LinkedIn

From a core infrastructure perspective the key opportunity to benefit from data center growth has been through regulated electric utilities. Being regulated, these utilities do not directly benefit from tightening power markets, as the prices that they charge their customers are set by the regulator. This note therefore explores the extent by which new data center load provides value creation for regulated electric utilities – from both a shareholder and customer perspective - and does this through the evaluation of a recent data center announcement by Meta, in the Louisiana service territory of the regulated utility Entergy (a portfolio holding).

We see this thematic as an exciting opportunity for infrastructure investors; due to the significant value creation potential for utilities from data centers, and considering that US regulated electric utilities are the largest infrastructure sector in the main listed infrastructure indices (typically constituting around a third of the indices).

Meta's Louisiana data center build their "largest in the world"

On 4 December Meta announced that they would be building a 4 million square foot data center – their largest in the world – in Richland Parish, Louisiana. At its largest point, the data center will be more than one mile from front to back. The project is said to support at least 500 direct jobs and 1,000 indirect jobs (once complete), and 5,000 construction workers at the peak of construction. The construction cost to Meta is forecast to be US$10 billion, and the energy needs are a massive 2GW (enough to power 1.5–2m homes).

The data center is located within the service territory of Entergy Louisiana. Entergy announced the new load at its third quarter results on 31 October, without disclosing the customer's name.

We then met with senior management of Entergy at the Edison Electric Institute conference in early November, who noted that the site is located within a very socio-economic disadvantaged region and which has been difficult to attract industry to (the site itself had been available for a large industrial customer for decades). So in addition to the impact on Entergy, this development is a massive boost to the surrounding communities.

Entergy estimates that powering the data center will require the utility to invest $3.2 billion for the needed electricity generation (comprising three combined cycle gas combustion turbine generators of 754MW each) plus $546m for the transmission lines and substations. We calculate that this $3.75 billion investment equates to more than 20% of Entergy Louisiana's current rate base[2] – a staggering amount – and indeed nearly 10% of the overall rate base of Entergy's operations across its four states (the other states being Arkansas, Mississippi and Texas). So in our view, a truly company changing announcement for Entergy.

To protect the existing customers from these costs, Entergy has negotiated with Meta a 15 year supply agreement that includes minimum payments that fully cover the cost of the new generation that is being built. In addition to this, Meta will share in Entergy Louisiana's current system costs, that would otherwise have been fully borne by the existing customers.

Meta has pledged to match its electricity use from the data center with 100% clean and renewable energy. One way that it will do this is by working with Entergy to bring at least 1,500MW of new solar energy and storage to its grid.

Entergy Shareholder Value Creation

From a utility shareholder perspective the key question is how much value these transactions accrete. In considering this we believe there is both the direct benefit from the capital invested specifically to support Meta's site, as well as potential indirect benefits arising from the resulting customer growth and reduced bill pressure.

Considering first the direct benefits; as previously noted this single data center project will increase Entergy's overall assets by approximately 10%. Our analysis estimates it to have a positive 5% impact on Entergy's per share valuation, assuming they maintain their current capital structure. However, in their recent Q3 earnings presentation they provided an updated capital plan where they increased capex by $7 billion but only increased equity needs by $1.3 billion, suggesting equity funding of only 18.5%.

2 "Rate base" is the net investment amount that is calculated by the relevant regulator and is the amount on which the utility is entitled to earn a return.

If we use this funding assumption instead, we estimate the value accretion to be approximately 6%. The buildup of our forecasted valuation increase can be seen in the table below. Overall, the incremental capital expenditure from this single Meta project is expected to increase the value of Entergy's shares by 5–6%.

	Asset Value Growth	Increased Share Count	Increased Debt Cost	Net Accretion
Scenario 1: Funding at current capital structure	10%	~5%[1]	–	~5%[2]
Scenario 2: Funding at Q3 capital plan rate	10%	~2%[3]	~2%[4]	~6%[5]

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Notes:

1 Assuming an unchanged capital structure and given a 10% increase in assets ETR would expect a 10% increase in book equity, further assuming the current ~2x P/B ratio (as of 17 December 2024) this equates to ~5% of market capitalisation/shares outstanding.

2 Net accretion is given by the increase in value divided by dilution impact, net accretion = (1 + 10%) / (1 + 5%) - 1 = 4.8% (~5%)

3 Assuming an equity funding rate of 18.5% (as per disclosed Q3 funding plan) and given an increase in investment of $3.75 billion, ETR would expect to issue circa $700 million in equity which is around 2.2% of their current (as of 17 December 2024) market capitalisation of $31.8 billion, share count would also be expected to increase by 2.2% (~2%)

4 Assuming equity funding in Scenario 1 of $1.5 billion, and equity funding of $700 million in Scenario 2, we would expect to see an incremental $800 million of debt funding. Further assuming an after-tax incremental debt cost of 4% there would be a $32 million earnings impact due to relatively higher interest. This equates to 2.1% (~2%) of 2024 expected earnings.

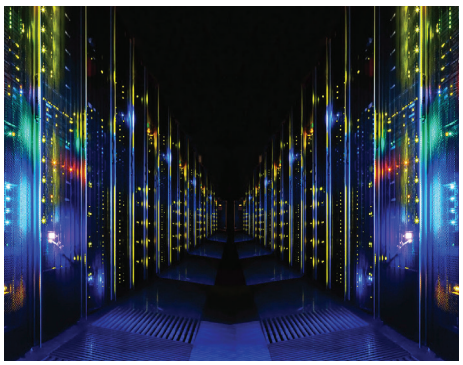
5 Net accretion is given by the increase in value less increased debt costs divided by dilution impact, net accretion = (1 + 10% - 2%) / (1 + 2%) – 1 = 5.9% (~6%) .

In addition, we see there being benefits from the transaction to Entergy's customers, which also indirectly benefits shareholders. The customer benefits result firstly from Meta agreeing to share in the current system costs, and secondly as a result of the jobs that the project will bring which should lead to a greater number of utility customers (which enables the costs of the system to be spread more broadly).

Each of these factors may help bring down the costs of the system to existing customers - with Entergy expecting that bill growth will moderate from 4.0% pa under its previous plan to 3.5% pa under the new plan.

This leads to indirect benefits for shareholders, as customer satisfaction is a key factor that regulators consider when balancing the interests of customers and shareholders. Further, and like all utilities, Entergy has a large backlog of additional work that would benefit customers were it to be affordable such as grid modernization, storm hardening and technology upgrades. So the bill headroom that the Meta transaction creates may enable Entergy to accelerate investments in its existing network, thereby enabling it to grow its asset base faster and so providing further shareholder value accretion.

As a cross-check, the Entergy stock price rose 15% on the day of its results, and we would view the strong move as largely attributable to this transaction. To us the move fairly reflects the value of the direct and indirect benefits from the transaction to shareholders – as detailed above – as well as a small amount of incremental value for the increased probability that there may be more such transactions for Entergy in the future.



Who else are Potential Future Beneficiaries?

As noted in the previous section, in our opinion this single data center transaction has created very meaningful value for Entergy shareholders. What does that then mean for the potential impact of data centers more broadly, on the value of electric utilities? And which utilities, in the US or abroad, are best placed to benefit from the rapid growth in data centers?

It should of course be highlighted that this data center is of unusually large size, and so is not reflective of the typical impact of a single data center transaction on a utility. On the flipside this was just a single transaction, and so the cumulative impact of individual utilities potentially executing on multiple transactions could indeed be far larger. Weighing these factors, we expect that the impact of the growth in data centers on utility valuations could indeed be very material for certain utilities.

The challenge will therefore be predicting which utilities are best positioned to benefit from the data center growth. The answer to this question will depend both on where the data centers are ultimately built and how much investment will then be required from the load serving utility relative to their existing rate base.

The second question is the easier to answer. Integrated utilities, that own the electricity generation as well as the transmission and distribution ("T&D") lines, will have a far larger investment requirement than the T&D only companies. This was clear in the Meta example, where the required investment in generation is nearly six times as large as the investment in transmission lines and substations. In the US the utilities are mainly integrated (so own the generation), but that is not the case across all the regions of the country. A further factor is to what extent individual utility systems currently have spare capacity (so are able to take on more load with less investment needed), although we see this as only a shorter term factor as we expect such spare capacity to be rapidly consumed.

Predicting the future locations of data centers is more difficult. There are some areas that have become data center hubs – with Virginia being the clearest example – that we expect will continue to grow strongly. There are also many factors that are important for siting data centers; including land availability, fiber optic infrastructure, water for cooling, access to labour and the availability of state level incentives.

However it is becoming increasingly clear that the availability of electricity, and the speed at which it can be delivered, have become particularly critical factors. In our opinion this is currently leaning towards favouring integrated utilities who can act as a single point in all aspects of the delivery, and especially until rate design agreements are settled for data center access to the networks in the deregulated markets[3]. It is also easier to build these facilities quicker in less populated regions.

Entergy of course had all these factors – it is an integrated utility, operating in states with good land availability and with state-based incentives to attract data centers, and is only a medium sized company so that this single Meta transaction had a significant sized impact on the stock valuation. We feel that Entergy has an opportunity to attract further data centers, both in Louisiana and its other states[4]. In addition to Entergy, other portfolio companies that we believe are well positioned for this opportunity include NiSource, Ameren, Evergy, Dominion and AEP[5] (although the latter two are admittedly larger companies).

3 We note the current dispute in the PJM electric market between certain Independent Power Producers and T&D utilities, which has been taken to the Federal Energy Regulatory Commission.

4 On 10 December 2024 it was announced that Hut 8, an energy infrastructure operator and bitcoin miner, had applied to build a $12 billion data center in another part of Entergy Louisiana's service territory. The Parish president said that the planning and zoning board would meet with council members on 6 January 2025 to vote on the project.

5 All as at 18 December 2024.

There are also opportunities for utilities from data centers outside of the US, although generally do not have the same potential share price impact. This is firstly as the speed of data center growth is typically less than that in the US, and also as in many cases the regulated utilities are T&D only.

Conclusion

For several years we have been very positive on the growth outlook for US regulated electric utilities. The investment need has been growing rapidly for multiple reasons; including the transition of the existing generation capacity that is resulting in investments in renewables, storage capacity, gas fired generation and transmission networks. At the same time electricity demand has been growing - as we have started to see the electrification of industry and transportation - which will be so important in ensuring that the investment need will be affordable for customers.

We consider that the impact of data centers is to further accelerate both the investment need and the electricity demand growth for the utilities, which only makes us more positive on the long-dated growth outlook for the sector.

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