

267% power price hike in 2020-25 led to windfall profits

- US AI boom has pushed power cost skyrocket by 267% from 2020
- PJM, Virginia, Maryland are the most crowded AI data center boom
- BCPG and EPG are undisputed key winners

More fuel into margin recovery fire

Bloomberg recently issued a report "AI Data centers are sending power bills soaring", citing that the costs of wholesale electricity in the U.S. on average soared by 267% from 2020 level (average USD16/MW-day) in the areas near data centers as the cost hike is passed through to the consumers. The largest cost hike is in PJM Interconnection, including New Jersey, Washington D.C., Pennsylvania, and the area covering Virginia and Maryland where a host of data centers are built.

AI boom at the cost of American gloom

On top of the rising prices for food, housing and other essentials that already strain Americans, the prices of power skyrocketed by over 80% than it was 3 years ago in many areas. With 2/3 of the power consumed in the U.S. come from a state or regional grid, where system operator manages the trading of energy, the wholesale commodity costs are hence passed on to households and business on their utility bills.

U.S. AI power demand surge from worse to worst

Of the nodes that recorded price jumps, over 70% are located within 50 miles of significant data center activity. In recent weeks, Nvidia announced its USD100b investment in OpenAI to support new data centers; Microsoft struck a multiyear deal worth USD20b with an Amsterdam-based Nebius Group NV to get a cloud computing power using a New Jersey data center; OpenAI and Oracle tied a partnership to build 4.5GW data center. Together, these deals exacerbated the already critical power reliability.

Data center power demand = world's 4th largest user after China, US, India

According to BloombergNEF, Globally, data centers are expected to consume over 40% of electricity by 2035. Besides U.S., Malaysia is lifting its power tariff for data centers while in the U.K., the higher demands from data centers could push power prices up by 9% by 2040. In the U.S., power demand for data center will double by 2035, almost 9% of demand, surpassing the biggest surge in power demand since air conditioning caught on in the 1960s.

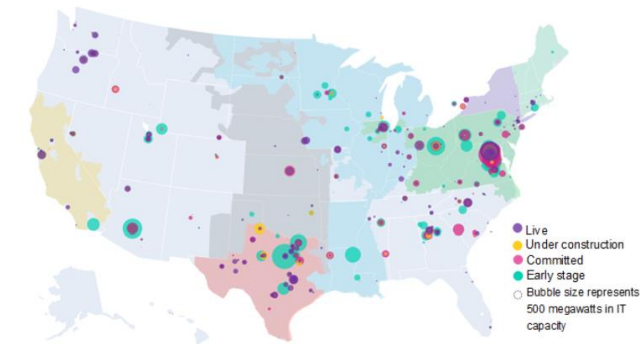
PJM cost hike is real; winners are BCPG and EPG

PJM Interconnection, the operator of the largest US electric grid, has faced significant strain from the AI boom, which has raised the power cost burdens up by USD9.3b in May-24 to Jun-25. Demands tied to cryptocurrency boom, new factories and the electrification of the economy further hike power bills. In SET, BCPG (TP THB12) and EPG (TP THB4.3) are the most beneficiaries of PJM's power price surge, thanks to BCPG's 50% capacity in PJM and EPG's 8,000tpa production plant in Tennessee to rightly serve the much-needed demands for data centers in PJM.

Analyst

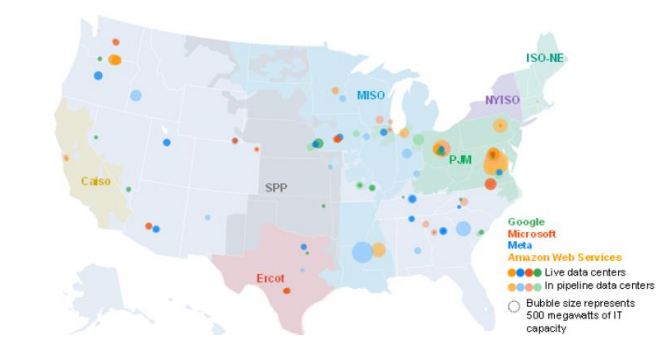
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Exhibit 1: Pipeline of data center in IT load



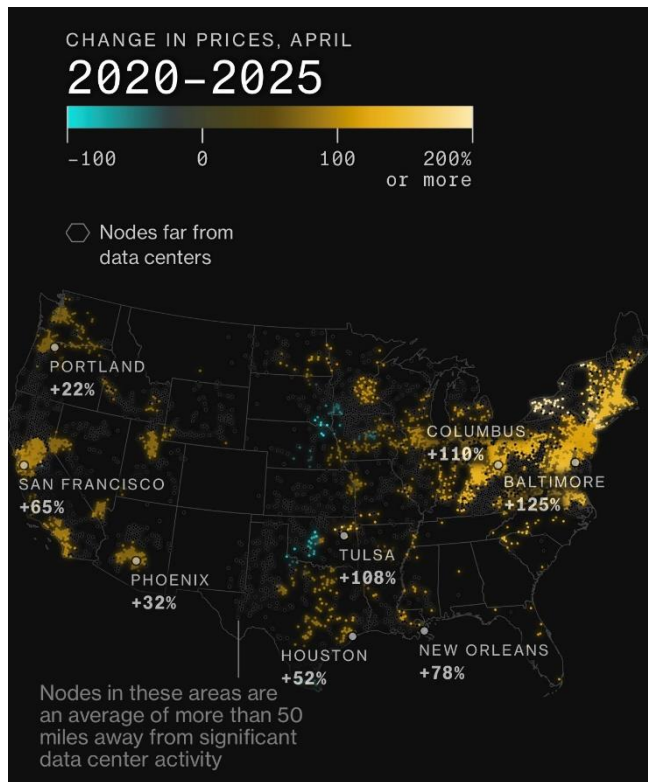
Sources: DC Byte, BloombergNEF

Exhibit 2: Data centers of hyperscalers



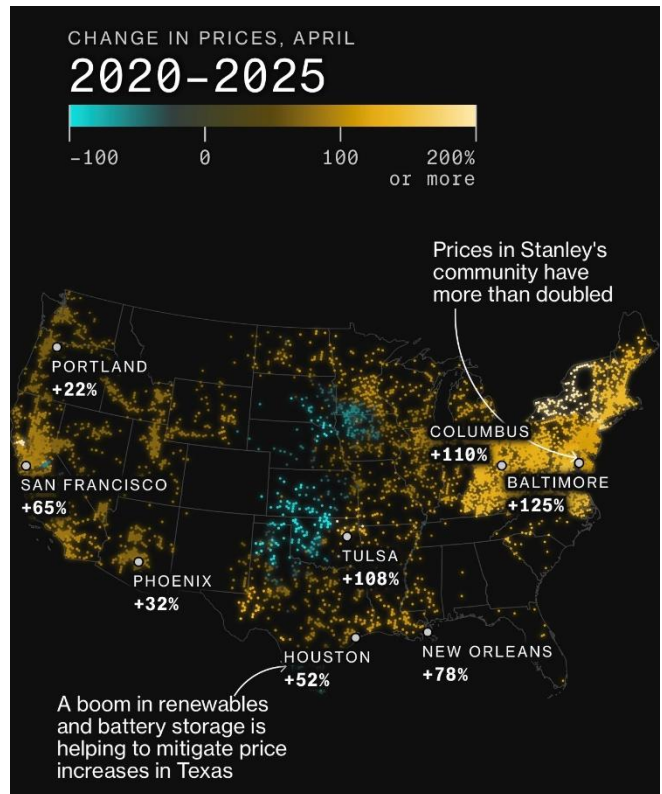
Sources: DC Byte, BloombergNEF

Exhibit 3: Power price changes during 2020-25, focusing on nodes near data centers



Sources: BloombergNEF

Exhibit 4: Power price changes during 2020-25



Sources: BloombergNEF

Exhibit 5: Power demand for US data centers by area

Figure 1: US data center power load

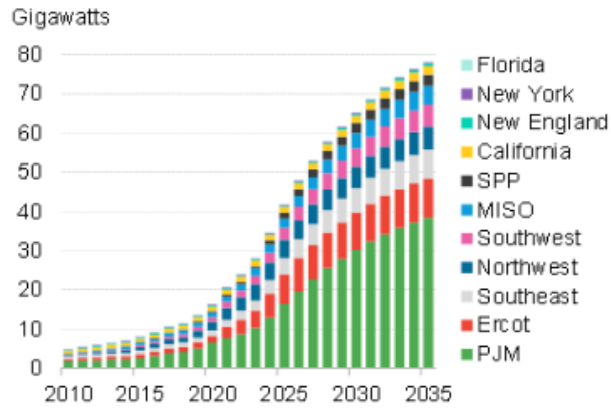
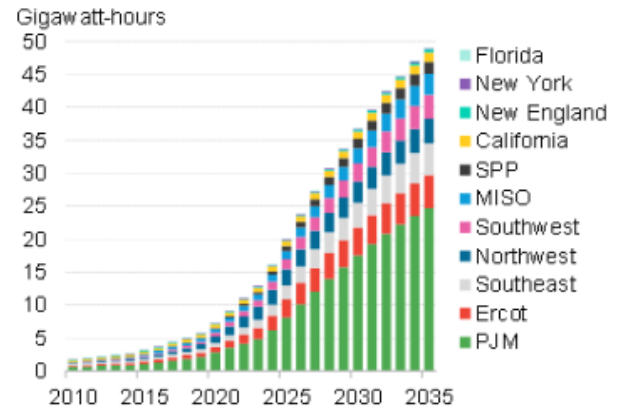


Figure 2: Average hourly US data center electricity demand



Sources: BloombergNEF; D.C. Byte

Exhibit 6: Power demand cost increases for key states



Sources: BloombergNEF

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Analyst Certification

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Stock Recommendations

Stock ratings are based on absolute upside or downside, which we define as $(\text{target price}^* - \text{current price}) / \text{current price}$.

BUY: Expected return of 10% or more over the next 12 months.
HOLD: Expected return between -10% and 10% over the next 12 months.
REDUCE: Expected return of -10% or worse over the next 12 months.

Unless otherwise specified, these recommendations are set with a 12-month horizon. Thus, it is possible that future price volatility may cause temporary mismatch between upside/downside for a stock based on market price and the formal recommendation.

* In most cases, the target price will equal the analyst's assessment of the current fair value of the stock. However, if the analyst doesn't think the market will reassess the stock over the specified time horizon due to a lack of events or catalysts, then the target price may differ from fair value. In most cases, therefore, our recommendation is an assessment of the mismatch between current market price and our assessment of current fair value.

Sector Recommendations

Overweight: The industry is expected to outperform the relevant primary market index over the next 12 months.
Neutral: The industry is expected to perform in line with the relevant primary market index over the next 12 months.
Underweight: The industry is expected to underperform the relevant primary market index over the next 12 months.

Country (Strategy) Recommendations

Overweight: Over the next 12 months, the analyst expects the market to score positively on two or more of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

Neutral: Over the next 12 months, the analyst expects the market to score positively on one of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

Underweight: Over the next 12 months, the analyst does not expect the market to score positively on any of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.