

Americas Energy & Transition

Americas Power and Energy Transition: Behind the Backlog - insights from our data center survey



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We [initiated](#) coverage on Americas Power and Energy Transition last week. ~20 calls and 1 webinar in two days - initiation feedback notes coming soon!

For today, we wrote a quick note summarizing the survey we conducted of 50+ data center operators asking how they'll source power over the next decade – and here are the key insights we gleaned:

1. Data center operators prefer a grid connection where possible.
2. Speed to power and reliability are the main priorities when making decisions on power sources.
3. Onsite power as back up is a critical design element, and likely here to stay.
4. Grid constraints and data center growth intensifying the pressure on the grid were the main concerns for data center operators.

It reiterated our bullish view on power demand, gas being a large part of this build out, and that US grid upgrade/ resiliency will drive decade(s)-long capital allocation.

Our Outperforms are GEV, FRVO, NEE, CEG, VST, and LNG.

Our Market-Performs are BE, ENPH, TE, and VG.

Our Underperforms are FSLR and ORA.

BERNSTEIN TICKER TABLE

Ticker	Rating	18 Jun 2026		Price Target	TTM Rel. Perf.	Cur	Reported EPS			Reported P/E (x)		
		Cur	Closing Price				2025A	2026E	2027E	2025A	2026E	2027E
BE (Bloom Energy)	M	USD	328.91	276.00	1404.1%	USD	(0.37)	1.46	3.27	(894.1)	225.0	100.6
CEG (Constellation Energy)	O	USD	274.06	296.00	(36.2)%	USD	7.40	11.82	12.67	37.0	23.2	21.6
ENPH (Enphase Energy)	M	USD	52.28	56.00	18.0%	USD	1.29	0.58	1.22	40.6	89.4	43.0
FRVO (Fervo)	O	USD	35.09	47.00	NA	USD	(0.25)	(0.10)	(0.16)	(141.3)	(358.5)	(222.9)
FSLR (First Solar)	U	USD	257.70	217.00	53.7%	USD	14.21	17.70	22.65	18.1	14.6	11.4
GEV (GE Vernova)	O	USD	1,109.73	1,206.00	100.7%	USD	17.70	25.21	26.05	62.7	44.0	42.6
NEE (NextEra Energy)	O	USD	86.75	107.00	(4.5)%	USD	3.30	4.30	4.48	26.3	20.2	19.4
ORA (Ormat Technologies)	U	USD	127.68	115.00	24.6%	USD	2.02	2.26	2.48	63.2	56.4	51.4
TE (T1 Energy)	M	USD	9.35	9.00	510.4%	USD	(2.19)	(0.31)	(0.07)	(4.3)	(29.8)	(130.1)
VG (Venture Global)	M	USD	11.02	14.00	(65.4)%	USD	0.86	0.86	0.86	12.8	12.8	12.8
VST (Vistra Corporation)	O	USD	163.75	181.00	(35.3)%	USD	2.18	9.44	11.70	75.3	17.3	14.0
SPX			7,500.58									

O - Outperform, M - Market-Perform, U - Underperform, NR - Not Rated, CS - Coverage Suspended

VG estimate is Adjusted EPS; VG valuation is Adjusted P/E (x);

Source: Bloomberg, Bernstein estimates and analysis.

INVESTMENT IMPLICATIONS

We believe the results of our survey favor the IPPs in our coverage with grid connected assets (CEG, VST both Outperform) as well as providers of onsite power solutions (BE - Market-Perform). They are also positive for GEV (Outperform) as a provider of grid equipment, and NEE (Outperform) as a renewable energy power producer.

DETAILS

1 - Grid is king – When we asked about expected power supply for data centers over the next 5-10 years, 98% of respondents said grid was the preferred connection. 12% said grid as primary source, and for sites over 100MW, 86% of operators preferred grid interconnections supplemented by onsite generation.

Behind the meter (BTM) is only ~5% of the power market for data centers, and we think it'll continue to be 5-10% in the 2030 timeframe. Typically, BTM is more expensive than grid connected power, and therefore used when grid connection or reliability are challenges. 100% of respondents said availability of grid capacity influence their site selection decision.

This is a tailwind for VST, CEG and NEE that have grid connected assets, and have capacity to contract.

2 - Speed to power and reliability trump cost – In our coverage, speed to power benefits BE as they can deliver power in 55-90 days. This is important when most of our respondents said more than three years to wait for a grid interconnection was effectively unacceptable. Interconnection queues in most regions currently extend to 4+ years. Onsite power that is quick to install provides a supplementary solution.

3 - >95% ranked back up onsite power as a critical design element for times of power disruptions. Solar + BESS (Battery emery storage systems), natural gas (turbines or RICEPs) and fuel cells emerged as the preferred power supply sources for onsite power for current and new data center developments. If data centers can be grid connected that would be best, if not solar +BESS, or turbines or fuel cells as onsite with some level of grid connectivity is the preferred choice.

4 - 10% of our respondents suggested **cost was not a driver** when and were okay with higher costs for onsite generation.

5 - 90% or more of respondents thought **onsite backup is here to stay** and that in the future large data centers will utilize hybrid power architectures combining grid supply and on-site generation.

6 - We asked a long form question around concerns and uncertainties - and five themes emerged from the responses:

- **Theme 1: Grid access is the primary constraint.** Respondents consistently cited interconnection queues, transmission limitations, and grid reliability as the largest unknowns. - This drives our conviction behind GE Vernova's electrification business and that the market is missing the "connectivity tissue" demand associated with data centers.
- **Theme 2: Permitting remains slow and uneven.** Approval timelines were viewed as unpredictable across jurisdictions and a major source of schedule risk.
- **Theme 3: Power economics remain volatile.** Electricity, gas, hydrogen, and storage costs were difficult to forecast, reducing confidence in long-term planning.
- **Theme 4: Emerging technologies are promising but not yet de-risked.** Hydrogen and long-duration storage were seen as constrained by cost, fuel availability, and technology maturity.
- **Theme 5: Data center growth is intensifying system stress.** Respondents were increasingly focused on whether utilities and grids can keep pace with hyperscale load growth. Reiterating our view on infrastructure build out is going to be key for reliability in the long run.

7 - Finally, we asked a long form question around how sustainability commitments shape power sourcing decisions. We categorized the responses into three buckets and **a majority of respondents indicated consideration of sustainability goals especially if the projects were of large scale.** We believe these results are supportive of NEE as large power producer with renewable energy assets in NEER. This is also a tailwind for CEG's large nuclear fleet once more PJM clarity is received. This is a driver for FRVO as well, that has ~650+MW signed in long term contracts - part of that 650 MW is with hyperscalers.

Reliability and speed to power were ranked as the most important priorities.

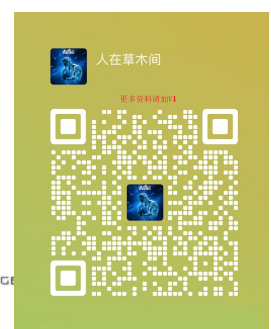


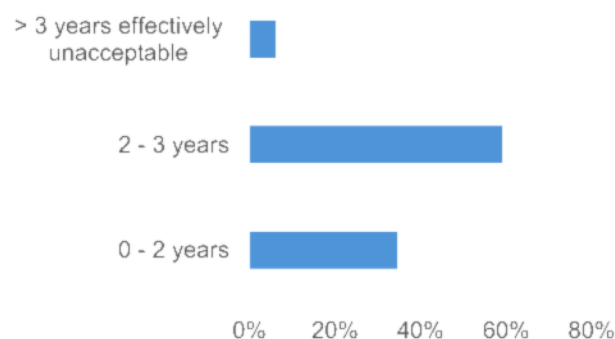
EXHIBIT 1: Reliability and speed are the most important factors influencing the choice between grid-connected and on-site power

Survey question - Which factors most influence the choice between grid-connected and on-site/ behind-the-meter power solutions for new data centers?

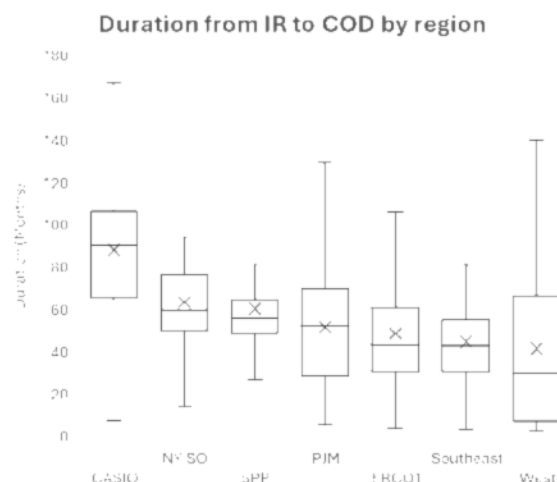
	Speed of power availability	Reliability and uptime requirements	Cost of electricity over time	Upfront capital investment	Carbon emissions/ sustainability goals	Regulatory or permitting considerations	Fuel availability	Other
#1 most important	20%	80%	0%	0%	0%	0%	0%	0%
#2	59%	20%	12%	0%	8%	0%	0%	0%
#3	10%	0%	61%	2%	22%	4%	0%	0%
#4	6%	0%	16%	16%	29%	33%	0%	0%
#5	2%	0%	10%	20%	12%	51%	4%	0%
#6	2%	0%	0%	49%	24%	10%	14%	0%
#7	0%	0%	0%	12%	4%	2%	82%	0%
#8	0%	0%	0%	0%	0%	0%	0%	0%

Source: Bernstein analysis

Most of our respondents said more than three years to wait for power was effectively unacceptable. This is favorable for suppliers with grid connected assets, as well as power producers supplying onsite generation, as average interconnection times in most regions currently extend to 4+ years.

EXHIBIT 2: Survey question - What maximum grid interconnection timeline would generally still be considered acceptable for a large new data center project in your organization?


Source: Bernstein analysis

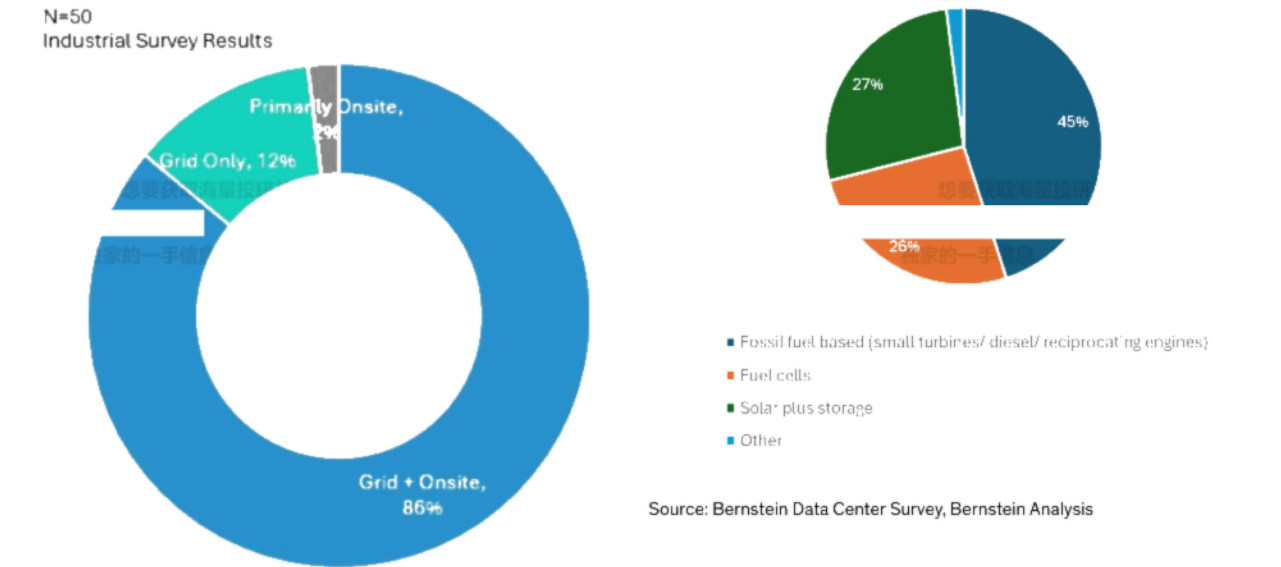
EXHIBIT 3: Interconnection queues are ~4+ years for all regions, CAISO is the worst served region...


Source: LBNL, Bernstein analysis

Most respondents indicated a preference for grid connected power, supplemented by onsite resources. 95% of current data centers are connected to the grid. Natural gas, Solar + storage, and fuel cells emerged as the preferred power supply sources.

EXHIBIT 4: **Survey question - How do you currently expect the primary electricity supply for new large scale data centers (e.g. >100MW) to be sourced over the next 5-10 years?**

EXHIBIT 5: **45% of respondents preferred fossil fuel onsite back up; followed by Solar+BESS, and Fuel Cells**



Source: Bernstein analysis

Finally, We asked a long form question around how sustainability commitments shape power sourcing decisions. We categorized the responses into three buckets and a majority of respondents indicated some consideration of sustainability goals.

EXHIBIT 6: **Survey question: What role, if any, do decarbonization or sustainability commitments play in shaping your organization's preference around power supply sourcing and configuration?**

