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Ticker	Price	Rating
AEE	85.62	Neutral
AEP	102.15	Neutral
CEG	254.98	Buy
CMS	69.84	Buy
CNP	28.17	Buy
D	57.93	Buy
DTE	125.09	Neutral
DUK	116.37	Buy
ED	103.35	Neutral
EIX	85.43	Buy
ES	67.14	Buy
ETR	129.25	Buy
EVRG	61.65	Neutral
EXC	40.27	Neutral
FE	44.00	Buy
IDA	102.22	Neutral
LNT	59.72	Neutral
NEE	82.76	Buy
NI	34.08	Buy
OGE	40.71	Neutral
PCG	20.08	Buy
PEG	86.76	Buy
PNW	90.28	Buy
POR	47.70	Buy
PPL	32.46	Buy
SO	89.70	Buy
SRE	83.18	Buy
TLN	184.09	Buy
VST	107.88	Buy
WEC	94.72	Neutral

Power & Utilities

September 23, 2024

Data Center Diamonds in The Rough: Locating Data Center Growth Around the Country and Underappreciated Utilities That Could Benefit

Key Message: In this report we are looking to distinguish US geographies most impacted by data center development and utility companies that stand to benefit, and vice versa. In terms of data center development, we see some incumbent states showing fast growth (i.e., VA, TX, GA, AZ) and some states that are adding new capacity where there was less existing demand before (i.e., OH, IA, NV, SC, PA, MN, IN, MS, KY, **MO**, **WI**). On a relative basis, we see the highest potential load growth contribution from data centers in states such as VA, NV, IA, MS and AZ (top 5), but the list of significant DC contribution to load growth has another 10 states (greater than 5% of 2023 historical load). This report highlights the utilities with the largest gross additions of data center load (D, SO, SRE/Oncor, AEP, DUK, PPL, ETR, NI), but we also highlight the utilities where the data centers contribute materially to load growth inflection i.e., low starting point with high growth (PNW, EVRG, IDA, WEC, FE and AEE). We note that a significant portion of both existing and future data center capacity is with public utilities, privately owned, co-ops and municipal systems. We also dive a layer deeper to look at trends in the hyperscale data center segment and other applications. Lastly, separating the known from the underappreciated, based on the number of planned and in-construction data centers we see several underappreciated data center stories AEE, AEP, DUK, ETR, EVRG, EXC, FE, PPL, SRE/Oncor and non-regulated NEE, TLN, VST. On the other end of the spectrum, we believe CEG, D, IDA, LNT, NI, OGE, PEG, POR, PNW, SO, WEC have been fully appreciated for data center attributes (the categories are independent of our overall ratings). We will focus the stock-specific discussion on our covered names (public utilities, private-owned utilities and XEL and TXNM are also mentioned in our data sets).

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NOTE: The source data is separate from individual company disclosures and forecasts, so it may present differing views which can present disconnects vs. company disclosures (i.e., potentially highlighting where certain companies may be too conservative or too aggressive).

Our Key Takeaways are:

- VA and Dominion remain extraordinary standouts in planned and in-construction data center capacity (potential to double the state's energy consumption by 2030). The scale of D's future capacity screen is staggering, but we see hurdles in realizing upside (i.e., do not see an earnings step-up).
- The scale of future capacity additions to VA may not be technically feasible in the specified timeframes. We see a variety of alternatives where DCs can go TX, GA, AZ, OH, IA, SC, PA. IN, MS, KY. These states screened well for existing and future DC capacity additions.
- The companies that we believe could benefit from data center development outside of VA and for whom this is not reflected in relative valuation are AEE, AEP, DUK, ETR, EVRG, EXC, FE, PPL, SRE/Oncor and non-regulated NEE, TLN, VST.
- The companies with data center exposure that we see as fully appreciated for the attribute are CEG, D, IDA, LNT, NI, OGE, PEG, PNW, POR, SO, WEC.
- We recognize several names that did not screen highly for data centers or do not have material exposure from <u>our</u> data set: CMS, CNP, DTE, ED, EIX, ES, PCG, etc.
- · Public utilities, munis and co-ops are playing a major role in both existing and new data

center capacity deployment.

Key items covered in this report:

- · State-level aggregates on existing and future data center capacity
- · State-level contribution to load growth from future data center capacity
- · Utility Holdco level aggregates on existing and future data center capacity
- Breakdown of Hyperscale, Cloud/Wholesale and other DC applications by utility
- Trends for power usage per square foot, annual capacity deployment breakdown and average PUE (power utilization efficiency)

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This report analyzes a proprietary data center database to highlight areas where companies may be too conservative or aggressive on data center assumptions.

Data center power demand is expected to grow from 37GW to 86GW through 2030+.

Data center demand and potential EPS impacts partially contributed to the UTY outperformance vs. S&P 500.

We highlight 3 categories of utilities stocks: 1) underappreciated data center value, 2) fair data center value and 3) limited exposure/upside to data centers.

Our data analysis suggests AEE, AEP, DUK, ETR, EVRG, EXC, FE, PCG, POR, PPL, SRE/Oncor and non-regulated NEE, TLN, VST are not fully reflecting data center opportunities in their valuation.

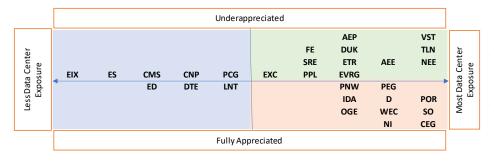
PM Summary

We analyzed a proprietary database of existing and future planned data centers across the US to find states and utility stocks with the most existing and future data center capacity as it impacts load growth and ultimately grid and generation investment. <u>NOTE:</u> The source data is separate from individual company disclosures and forecasts so it may present differing views which can present disconnects vs. company disclosures (i.e., potentially highlighting where certain companies may be too conservative or too aggressive as we think about DC opportunities in isolation).

Based on our data, data center power demand is expected to grow from 37GW to nearly 86GW (dataset includes developments through 2030+ with some unspecified dates). The increase in electricity demand should drive utility load growth projections and capex budgets higher to meet the rising need for electricity and ultimately drive EPS growth over the next several years the outperformance of the sector YTD vs. the S&P is partially attributed to this. While investors have keenly paid attention to utility management commentary and data center developer commentary, this report seeks to quantify state- and company-specific capacity/demand impacts and distinguish between (1) companies with material data center exposure that are underappreciated relative to the potential upside, (2) companies with data center exposure that have received fair value for potential upside and (3) companies with limited data center exposure/upside (i.e., confirming conservative stance from management). We take both a quantitative and qualitative approach to parse through the data and seek to bridge the gaps between identified future DC capacity, unquantified future DC capacity and company/PR disclosures around data centers nationally.

In those 3 categories we find:

Figure 1 Stock Data Center Exposure and Our View of Reflected Valuation



Source: S&P 451 Research, Guggenheim Securities LLC

Note: Figure 1 holds everything in isolation and is agnostic to our stock ratings

1. Companies that are underappreciated in our view relative to data center upsides: AEE, AEP, DUK, ETR, EVRG, EXC, FE, PPL, SRE/Oncor and non-regulated NEE, TLN, VST.

• AEE: Trades in line with the utility group but has above-average EPS growth coupled with DC/hyperscaler upside in MO (higher growth albeit from a lower base) and a less material amount from IL. Valuation levels do not

reflect any DC opportunities in a material way, in our view, and we expect tailwinds would be supportive of growth's movement back toward the midpoint or better of the existing 6-8% EPS growth range.

- **AEP:** Has data center opportunities in several jurisdictions including OH and TX, but the stock is trading in line with the utility group and not reflecting upside opportunities with DC's all else equal. It's important to note that there have been large money flows into large caps, which has helped contribute to some of the valuation upside versus fundamentals with AEP and similar to DUK, SO, and WEC. So, even though AEP trades in line, some of this is not fundamentally driven.
- DUK: Trades at a premium versus the utility group BUT there is money flow into large caps in every sector, so some of the valuation uplift is from flows vs. fundamentals. DUK is cheaper than SO and has DC upside opportunities in states such as SC and IN, and to a lesser extend NC, which is not being reflected in the shares.
- ETR: Company and service areas have been repositioning for data center growth; we see evidence in our screen for future capacity which could increase in the near term. Shares continue to trade at a discount.
- **EVRG:** EVRG trades at a substantial discount to the group on structural regulatory concerns (KS); however, as with AEE, we believe the potential DC growth backdrop in MO is an overall tailwind and potentially supportive of volumetric relief for other customer classes, especially as/if projects accelerate in KS.
- EXC: As with EVRG, EXC trades at a discount on non-growth items; however, several of its territories are among growth areas identified in this data set and in recent press (e.g., PA, IL) supporting the 'transmission growth' narrative we have heard from its neighbors (e.g., PPL in PA).
- **FE:** Trades at a ~2x discount versus the utility group but with above-average long-term EPS growth of 6%-8%. The company does have data center opportunities in PA and OH that are not reflected in the valuation, in our view.
- **PPL:** Trades in line but with above-average growth so should trade higher on DC opportunities in both PA and KY. PPL has been one of the more transparent on transmission capex upside very supportive of ongoing rate base/EPS growth harmonization.
- SRE: Has significant exposure through Oncor with both large existing data center load and future capacity (as well as unquantified projects in our database). Shares continue to trade at a noticeable discount.
- NEE: On the regulated side, FL is not the best place for data centers due to weather. On the NEER side management is conservative in plan, but the company will likely be a beneficiary of new electric demand including data centers, which was a discussion point during our NDR.
- VST: As an IPP, VST's linkage is to direct DC contracting and colocation prospects – VST trades at a discount to its peers and is the remaining nuclear IPP to announce a DC deal (following CEG-MSFT last week) – we also see *any* potential DC-gas contracting as a direct uplift to VST given its fleet makeup.

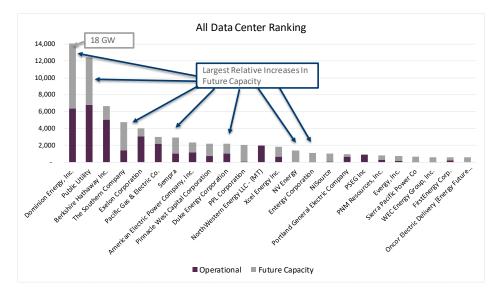
Our data analysis suggests CEG, D, IDA, LNT, NI, OGE, PEG, POR, PNW, SO, and WEC are fully reflecting data center upside in their valuation. TLN: As an IPP TLN's linkage is to direct DC contracting and colocation prospects – TLN management continues to pursue a second deal to its existing AWS agreement, with ongoing valuation headroom, in our view, as the industry begins to ramp deal announcements into year-end.

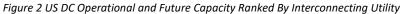
2. Companies that we believe are fully appreciated relative to data center upside: CEG, D, IDA, LNT, NI, OGE, PEG, POR, PNW, SO, WEC

- CEG: As an IPP, CEG's linkage is to direct DC contracting and colocation prospects – CEG trades at a premium to our other IPPs on this basis given its nuclear concentration and recent favorable contracting data points (e.g., the 9/20 MSFT deal for TMI).
- **D:** Reflects what we know in VA and we <u>don't</u> currently anticipate D changing 5-7% EPS growth rate with the stock currently trading in line.
- **IDA:** Trades at a premium versus its SMID cap peers and the utility group, which is reflecting any future growth opportunity from DCs in ID.
- LNT: lowa continues to see DC interest; however, LNT already trades at a premium to the group we see DC interest as support of the regulatory cycle (rate case stay out) and the overall 5-7% EPS growth. We don't anticipate changes to the EPS growth at this time.
- NI: Top-quartile EPS growth of 6%-8% and trades at a premium relative to the utility group which reflects DC/hyperscaler growth opportunities in IN.
- OGE: Our database screen did not show material existing or future capacity despite the actual retail sales growth posted by the company, which could be a data consistency error. OGE has received a premium for load growth in its valuation, in our view.
- **PEG:** Trades at a premium on the anticipated behind-the-meter deal with Artificial Island nuclear site in NJ.
- POR: trades in line with SMIDs in general, in-line growth with strong base of DC in place but our dataset isn't showing a material number of future opportunities coming from DCs, all else equal. The POR discount vs. largercap peers is more attributed to flows and the higher demand for larger cap, more liquid names like we have seen in other sectors.
- **PNW:** Has data center opportunities in AZ but is trading at a premium versus the utility group.
- SO: Trades at a ~3x premium with 5%-7% long-term EPS growth. Projecting 6% load growth from 2025 2028 compared to 1%-2% from 2024-2025. While large money inflows into large caps have contributed to some of the valuation uplift to shares which is outside of fundamentals, the market is already pricing in a sound level of DC opportunities in GA and we don't currently see a material number of opportunities in AL.
- WEC: MSFT data center announcement in Wisconsin is a key catalyst but guidance remains at 6.5%-7% EPS growth and shares are currently trading at a premium, reflecting WEC's top-quality attribute, in our view. While WI DC opportunities could increase with MSFT growing, we believe some of this is already known.

Our data analysis suggests that CMS, CNP, DTE, ED, EIX, ES, and PCG have limited exposure to data center opportunities. 3. Companies that have limited exposure to data center driven growth: CMS, CNP, DTE, ED, EIX, ES, PCG

- CMS: Has not screened for data center exposure. MI has been lower priority for data centers.
- **CNP:** Relatively low data center exposure.
- **DTE:** Our screen shows modest future capacity development, and the stock has traded well on anticipated demand growth.
- ED: Has not screened for data centers and not an advantaged geography for major development.
- EIX: Has not screened for data centers and not an advantaged geography for major development.
- ES Has not screened for data centers and not an advantaged geography for major development.
- PCG: Despite company disclosures, our data set is not projecting material DC opportunities. Despite the prior company disclosures around potential DC interconnection, several entries in our data set remained unquantified. The primary benefit for PCG has been bill headroom from DC electric sales growth.





Source: S&P 451 Research, Guggenheim Securities LLC

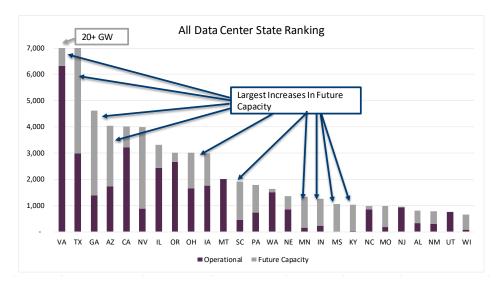


Figure 3 US Operational and Future DC Capacity (MW) by State

Source: S&P 451 Research, Guggenheim Securities LLC

Full disclosure: not all identified future data center capacity tracks with management commentary, but a qualitative sweep helps bridge the gap where the data center data base has unquantified capacity for planned data centers. We swept through ~120 unquantified data centers and note that nearly all are in the hyperscale, wholesale or powershell categories, all of which are high-load applications. In that regard, we present segmentation of applications by utility later in this report which shows which utilities have existing and future high load data center capacity (i.e., it matters where the hyperscalers are going more than retail/end compute type of applications).

Looking at Existing and Planned Data Centers in Aggregate

We are starting to see material regional sales growth inflection, potentially reshaping individual utilities. Utilities are expected to benefit from the increase in electricity demand to power data center facilities, which we believe will drive load growth forecasts, capital budgets, and ultimately EPS growth higher over time. Electricity demand is estimated to grow by 9% in the United States through 2030 (See recent ICF report here), driven by the development of artificial intelligence and data centers. Based on our data, data center power demand is expected to grow from 37GW to nearly 86GW (dataset includes developments through 2030 with some unspecified dates). The increase in electricity demand should drive utility load growth projections and capex budgets higher to meet the rising need for electricity and ultimately drive EPS growth over the next several years.

We conducted a top-down analysis of data center demand growth across the United States by beginning with a high-level view of a data set for US existing and future capacity (includes planned and in construction data sets). It's important to note, our analysis is separate from company disclosures, forecasts and guidance around DC opportunities. Our database uses a

DC power demand is expected to grow from 37GW to 86GW through 2030.

This analysis is separate from individual company disclosures and comments on DC exposure. Investors should use our analysis to compare with company disclosures which should help identify disconnects.

Demand driven by AI/data centers should drive capital investments higher, resulting in higher EPS growth.

Our analysis looks for dislocations between our data and company announcements. proprietary classification for planned and in-construction phase data centers that may not align with PR announcements on long-term development agreements with individual utilities (i.e., more conservative).

Investors should use our analysis and cross-post it with company disclosures to form their own basis on where the database and announcement disconnects are/how they could be too aggressive/conservative vs. our analysis. We try and do the same in this note. We also include a qualitative element which identifies major planned data centers with unquantified capacity which could present upside for relevant companies (i.e., some of the capacity may not be captured due to the unquantified capacity in our source database).

We looked to identify which utility companies within the regions have the most exposure and what catalysts are reflected in current valuation levels. Our analysis is intended to provide readers with states and companies that have the most exposure to data centers and which are expected to benefit from the ramp in electricity demand, as well as a framework for new announcements. We also try and separate, out of those utilities with most DC upside, who is pricing that into valuation levels and who are and are not necessarily getting rewarded from our analysis.

We believe Al/data center growth will push utility load growth forecasts and capital budgets higher to meet the growing need for power over the next several years. As noted from our recent call with Microsoft's Director of Public Policy (see our takes *HERE*), the tech industry maintains a view that the United States is in a global arms race, particularly with China, and in an all-country effort to stay ahead in the advancements of Artificial Intelligence. To that point, we believe a select number of utilities will have a greater benefit from data centers based on location/exposure (i.e., D, SO, SRE/Oncor, AEP, DUK, PPL, ETR, NI, PNW, EVRG, IDA, WEC, FE and AEE), which we laid out in our analysis below. Further, we look at our analysis to identify which companies have data center demand growth reflected in current valuation and to identify which companies still stand to benefit from these catalysts. An interesting item we have found is companies such as POR, OGE and PCG (to a smaller degree) having few entries for confirmed future capacity despite datapoints from management.

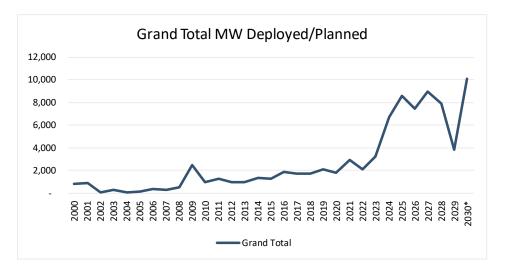


Figure 4 451 Research Actual and Anticipated DC Capacity In-Service

2030* - Includes unspecified in-service dates

Source: S&P 451 Research, Guggenheim Securities LLC

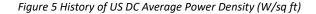
What data center growth is reflected in valuations? Data center demand growth is expected to be a key catalyst in driving utility earnings over the next several years. Based on our analysis, AEE, AEP, DUK, ETR, EVRG, EXC, FE, PPL, SRE/Oncor and non-regulated NEE, TLN, VST trade at the most favorable valuation relative to potential data center upside in their service territories. CEG, D, IDA, LNT, NI, OGE, POR, PEG, PNW, SO, WEC already trade at a fair value/premium and all other things held constant, have a degree of data center upside potential embedded in their stock price. At time of writing, our electric utilities coverage is trading at 16.2x on 2026E earnings.

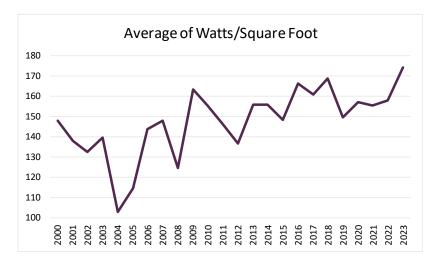
A Few Finer Details Around Data Center Trends

Power usage has been increasing on a per-square-foot basis (data center power density) while the power utilization efficiency (PUE) has become more efficient over time. Our analysis included some trends among data center power usage. The density of existing data centers has been increasing since 2000, which is constructive for future demand growth (i.e., even with increases in compute efficiency, the power density remains high). PUE is indicative of the ratio of compute power vs. the total electric demand for a facility. The PUE has been trending closer to 1.3 for planned data centers (trend from 2000-2030). We are providing these datapoints for investors trying to frame new data center announcements – i.e., power consumption per square foot or ability to pro-rate power demand based on compute equipment racks as a ratio to total power consumption.

AEE, AEP, DUK, ETR, EVRG, EXC, FE, PPL, SRE/Oncor and nonregulated NEE, TLN, VST trade at favorable valuations relative to DC upside opportunities.

As data center power usage has increased, power utilization efficiency (PUE) has improved.





Source: S&P 451 Research, Guggenheim Securities LLC

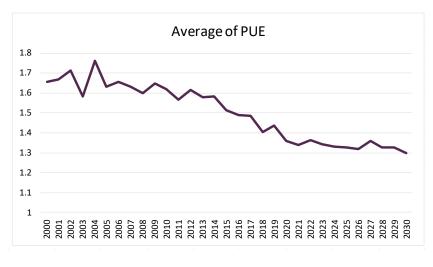


Figure 6 History and Planned Power Utilization Efficiency in US Data centers

Source: S&P 451 Research, Guggenheim Securities LLC

Taking a Closer Look at State-Level Existing Capacity

States like VA, TX, GA, AZ are more obvious leaders in existing data center capacity, but many alternatives with planned capacity are coming up. We believe there will be a multitude of data center capitols across the US.

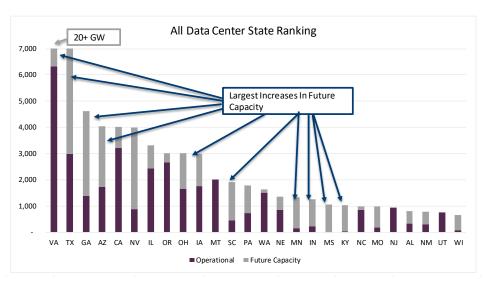
Key Points:

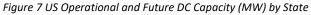
First, we look at the top data center exposure for each state. This includes existing data center capacity and quantified future capacity shown in Figure 7 below. The top five states with the biggest data center exposure with both current and future capacity are: VA, TX, CA, GA, and AZ. Focusing more on incremental new DC capacity, we see that out of the top 5 states with existing capacity, VA, TX, GA and AZ all have significant gross additions planned, while CA has operating capacity, but fewer adds (we do, however, note some

From our data analysis, we believe **VA**, **TX**, **GA**, and **AZ** will be data center capitals.

Separately, VA, TX, CA, GA, and AZ have the most DC exposure with current and future capacity.

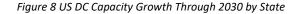
unquantified hyperscale projects are in our future capacity screen; i.e., do not contribute to chart below). Interesting mentions for highest gross capacity additions states that are adding new capacity where there was less existing demand before such as OH, IA, NV, SC, PA, MN, IN, MS, KY, MO, WI. See Figure 7 below.

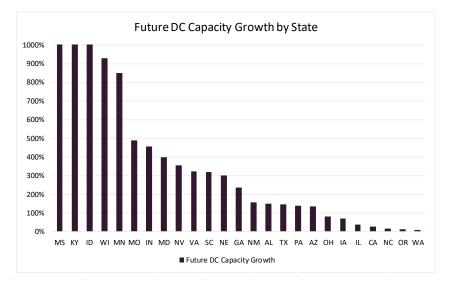




Source: S&P 451 Research, Guggenheim Securities LLC

Shifting to a relative basis, as a percentage of existing capacity, multiple states are growing data center capacity 3x-10x+. On a percentage basis, the largest increases vs. current data center capacity are: KY, ID, WI, MN, MO (increasing 5x-10x+) and, IN, MD, SC, VA, MS (3x-5x growth). This highlights the states with the biggest inflection in data center deployment. See Figure 8 below.





Source: S&P 451 Research, Guggenheim Securities LLC

Largest inflection in DC deployment: **KY**, **ID**, **WI**, **MN**, **MO** (increasing 5x-10x+) and, **IN**, **MD**, **SC**, **VA**, **MS** (3x-5x growth). Data centers often plan for 90% load factor, but we use 80% for our estimates.

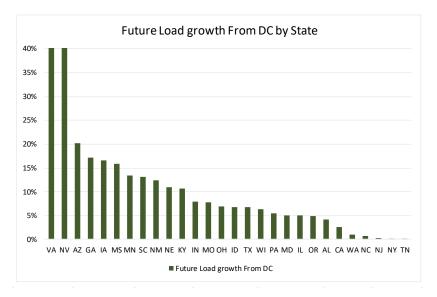
VA, NV, IA, MS, and AZ are the top states where DC load could

materially change statewide

electric consumption.

To put data center demand into perspective for the relative states, we estimate the potential contribution to sales growth on a state level. To scale the data center contribution from quantified planned data center additions we use the 2023 reported EIA gross electric sales for each state and we estimate the sales from a set of announced data centers. Based on industry commentary and published statistics, data centers often plan for a 90% load factor, but typically operate at 80-85%. We use an 80% annual load factor for our estimates. The top states where new data center load could materially grow statewide energy consumption are VA, NV, IA, MS and AZ (top 5), but the list of significant DC contribution to load growth has another 10 states (i.e., greater than 5% incremental load growth from data centers alone through 2030). See Figure 9 below.

Figure 9 US DC Sales Growth Impact Relative to 2023 Retail Electric Sales



Source: S&P 451 Research, Guggenheim Securities LLC

D is the leader when ranking the top utility by DC capacity. The highest gross MW of future capacity are D, SO, SRE, PPL, PNW, ETR, and NI.

Transposing Data Center Growth Into Specific Utility Holdcos

Key Point: Ranking the top utilities by data center capacity D is the clear leader. Looking closely, we highlight that the utilities with the highest gross MW of future capacity are D, SO, SRE, PPL, PNW, ETR, NI. Based on our data source, Public Utilities (muni/co-ops) also have a big role in future data center demand growth. *See Figure 10 below.*

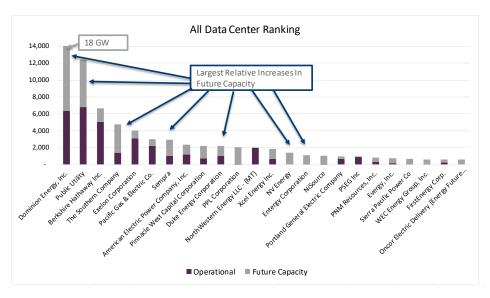


Figure 10 US DC Operational and Future Capacity Ranked By Interconnecting Utility

Source: S&P 451 Research, Guggenheim Securities LLC

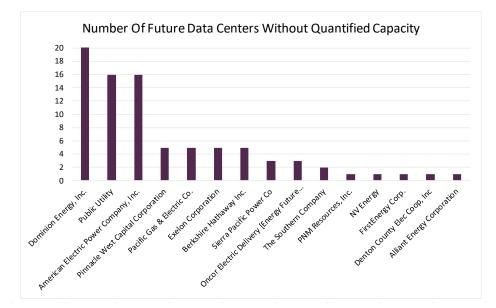


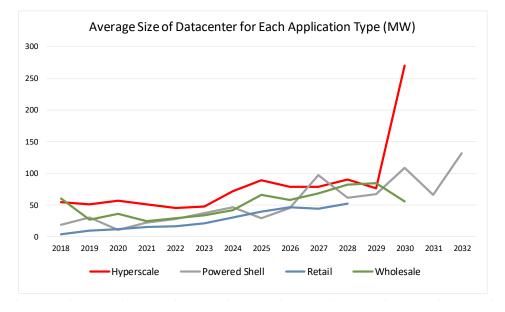
Figure 11 Future Data centers with Unquantified Capacity

PNW, PCG, EXC, SRE/Oncor, and **SO** are notable mentions for planned data centers with unquantified capacity requirements. Separately, we are highlighting a sizeable set of planned data centers with <u>unquantified</u> electrical capacity, the bulk of which are made for high-load application types (as discussed in the next section). Once again, D screens with the most incremental data centers and AEP is a close second with 16. Based on the most recent trend (highlighted in the figure below) hyperscale data centers of 80-90MW on average could mean 1.2-1.5GW of incremental data center

Source: S&P 451 Research, Guggenheim Securities LLC

capacity for AEP. Other notable mentions with potentially higher data center capacity are PNW, PCG, EXC, SRE/Oncor, SO.

Figure 12 Average Data Center Capacity for Each Application Type



Source: S&P 451 Research, Guggenheim Securities LLC

Separating Hyperscalers, Cloud/Wholesale and Other – Not All DC Applications Are Equal

Data Center applications and classifications vary widely, and while "hyperscale" is a word that gets thrown around frequently, other classifications can also be a large electrical demand contributor. In this section we separate known/disclosed data center capacity in 3 categories: Hyperscale, Cloud and Wholesale (including power shell) and Retail/Other.

It is important to track which companies are attracting the highest load applications since not every data center is the same (i.e., retail / end compute may be lower load, closer to consumer, and lower impact on the electrical grid needs). In our analysis, Hyperscalers are going to service areas of D, AEP, PPL, SO, SRE, EXC, ETR, NI – so these are the names that could potentially benefit if the hyperscale wave continues. Berkshire utilities (BRK) and Public Utilities / co-ops are also major participants in the hyperscaler development. See Figure 13 below.

We separated DC capacity into 3 known categories: Hyperscale, Cloud and Wholesale, and Retail/Other.

D, **AEP**, **PPL**, **SO**, **SRE**, **EXC**, **ETR**, and **NI** are potential beneficiaries from hyperscalers.

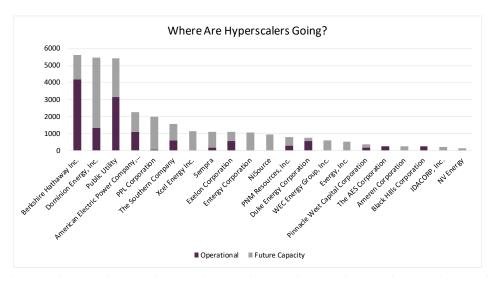
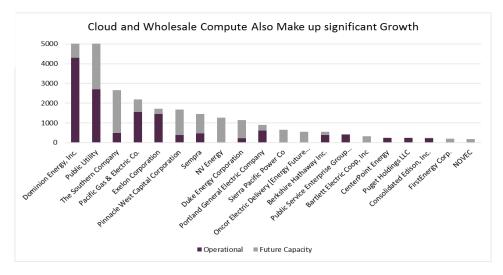


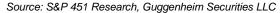
Figure 13 US Operational and Future Hyperscale Class Capacity (MW) by Utility Holdco

Source: S&P 451 Research, Guggenheim Securities LLC

The next energy-intense data center category is Cloud and Wholesale which also make up a large segment of electric demand growth. In this analysis we saw that D, SO, DUK, POR, SRE, PNW are names with existing and future capacity coming online in this segment. Attracting this segment is also important for utility load growth and grid investment opportunities. See Figure 14 below.

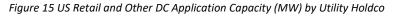
Figure 14 US Operational and Future Cloud and Wholesale Capacity (MW) by Utility Holdco

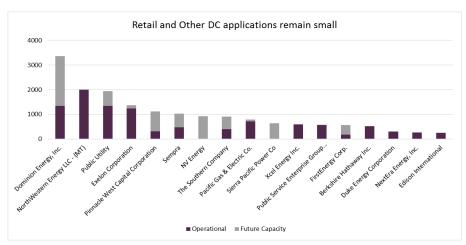




D, **SO**, **DUK**, **POR**, **SRE**, and **PNW** are names that could benefit from Cloud and Wholesale capacity.

Retail and Other DC category are a smaller portion of demand. We identified that **D** and **SRE** would benefit from the new capacity planned in their service territory. Lastly, we look at the Retail and Other data center category. Retail and other data centers are a smaller contributor to demand growth, and from our coverage only D and SRE have meaningful new capacity planned for their service territory. *See Figure 15 below.*





Source: S&P 451 Research, Guggenheim Securities LLC

Data Summary:

Total Data Center Tracker By State

Data Center Capacity (MW) Summary by State					
State	Operational	Planned	Under Construction	Future Capacity	Grand Total
AL	326	124	364	488	814
AR	2			-	2
AZ	1,733	1,994	365	2,358	4,091
CA	3,210	592	218	810	4,020
со	514			-	514
СТ	49			-	49
DC	43			-	43
FL	419			-	419
GA	1,382	2,764	482	3,245	4,627
HI	17			-	17
IA	1,768	746	473	1,219	2,988
ID	11	115	115	230	242
IL	2,425	604	279	883	3,308
IN	224	790	234	1,024	1,249
KS	69			-	69
KY	31	1,000		1,000	1,031
LA	17			-	17
MA	320			-	320
MD	96	384		384	480
ME	0			-	0
МІ	142			-	142
MN	141	1,148	45	1,193	1,334
MO	165	660	150	811	976
MS	1	960	96	1,056	1,057
МТ	2,002			-	2,002
NC	854	137		137	990
ND	6		-	-	6
NE	855	224	268	491	1,346
NH	5			-	5
NJ	929	0	19	19	948
NM	307	239	239	478	785
NV	872	2,504	605	3,109	3,981
NY	441	11	6	17	458
OH	1,651	1,062	305	1,367	3,018
OK	181	-	00	-	181
OR	2,661	359	92	451	3,111
PA	740	979	52	1,031	1,771
RI	3	4 057	0.4	-	3
SC	453 2	1,357	94	1,451	1,903
SD TN	229	10		- 10	2 239
TX	229		1,200	4,383	7,359
UT	2,977 758	3,183	1,200	4,383	7,359 758
VA	6,324	17,512	2,902	20,414	26,739
VA VI	0,324	17,512	2,902	20,414	20,739
VT	3			-	3
WA	1,505	74	46	- 120	1,625
WI	63	468	117	585	648
wv	03	400	117	-	048
WY	253				253
DE	15			-	15
		40.002	0 640	-	85,943
Grand Total	37,177	40,002	8,610	48,766	00,943

Source: S&P 451 Research, Guggenheim Securities LLC

We note the limitations of this report as it utilizes third party data (S&P 451 Research) and is updated on a lagging basis (2Q24) vs. more recent announcements.

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