METHODOLOGY:

Identifying Priority Jurisdictions for Data Center Regulation

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Introduction

Data centers pose unprecedented risks to our water resources, energy infrastructure, energy affordability, and economic outcomes. Data centers are the leading driver of electric load growth and some customers are already facing electricity cost increases due to data center buildout.[1,2] About two-thirds of data centers built since 2022 are in areas with existing high levels of water stress.[3] With estimates suggesting demand could reach 106 gigawatts by 2035, data centers are not going away any time soon.[4] Identifying the states most susceptible to data center impacts is a key first step in implementing guardrails around the rapid development of this industry.

This Climate XChange analysis identifies states of concern based on a robust 50-state analysis of data center impacts relating to the security, stability, and affordability of energy systems, as well as water stress, state budgets, and greenhouse gas emissions. We identify states most susceptible to each impact, considering the unique energy, water, and economic characteristics of each state. This report can serve as a guide on *where* to prioritize *what type* of emerging state-level regulatory mechanisms.

This analysis represents the first phase of a multi-phase data-center project at Climate XChange. Our next step will be identifying specific regulatory and policy approaches to mitigate the issues we outline in this phase. Those results will be released in a forthcoming series of Data Center State Policy Toolkit briefs to help inform future data center policy design. We hope these resources, in combination, can give policymakers and advocates a guide for where and how to prioritize different policy solutions to the challenges data centers pose across the country.

States are Concerned with Many Types of Data Center Impacts

With over 140 bills that aim to address data center impacts introduced across legislatures in 2025, policymakers around the country are bracing to absorb the impact that data

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[1] Grid Strategies, *Power Demand Forecasts Revised Up for Third Year Running, Led by Data Centers*, November 2025
https://gridstrategiesllc.com/wp-content/uploads/Grid-Strategies-National-Load-Growth-Report-2025.pdf

[2] Monitoring Analytics, *Analysis of the 2025/2026 RPM Base Residual Auction Part G*, June 2025
https://www.monitoringanalytics.com/reports/reports/2025/IMM_Analysis_of_the_20252026_RPM_Base_Residual_Auction_Part_G_20250603_Revised.pdf

[3] Leonardo Nicoletti, Michelle Ma, Dina Bass, Bloomberg News, *AI Demand Is Draining Water From Areas That Need It Most*, May 2025
https://www.bloomberg.com/graphics/2025-ai-impacts-data-centers-water-data/

[4] BloombergNEF, *AI and the Power Grid: Where the Rubber Meets the Road*, December 2025
https://about.bnef.com/insights/clean-energy/ai-and-the-power-grid-where-the-rubber-meets-the-road/

centers have on their communities and find constructive solutions.[5] Data centers, at scale, are having a profound impact on the security, stability, and affordability of our energy systems, as well as water stress, state budgets, and, of course, climate goals. In 2025, the Climate XChange team catalogued over 140 different bills that aim to mitigate these impacts from data centers, and grouped the bills into the following nine different bill focus areas:

1. **Rates and energy affordability**: These bills typically establish protections to ensure that data centers pay increased costs associated with their added energy demand and wear on transmission and distribution infrastructure, and that these costs are not passed on to other utility customers.
2. **Grid planning and reliability**: The bills in this category typically are incentives or requirements for data centers to minimize their impact on the surrounding electrical grid, related infrastructure, or even provide grid services such as energy storage or generation to help maintain reliability during periods of grid strain.
3. **Water stress and other environmental impacts**: These bills may make data centers measure, disclose, or mitigate their environmental burdens on surrounding communities. Bills may also require zoning amendments or additional assessments to protect at-risk communities, cultural resources, historic sites, parks or other natural resources.
4. **Employment, tax, and economic justice**: These bills look at altering the tax strategy for data centers. These bills may offer tax incentives in return for community benefits (such as requiring data centers to meet certain efficiency standards), or they may directly tax the center's revenue to pay for local programming, or may simply offer incentives to attract data centers to the state, with no strings attached.
5. **Renewable energy purchase requirements**: These bills typically require that data centers purchase renewable power to cover some or all of their load, and may be accomplished through a utility tariff, the purchase of renewable energy credits, or through a power purchase agreement.
6. **Efficiency requirements**: These are requirements that data center operations meet certain energy efficiency standards, typically touching on mechanical and electrical infrastructure elements. In some instances building envelope improvements are also mandated.
7. **Co-siting requirements:** These bills typically include requirements that data centers have certain generation or storage assets on-site to serve their own needs, and may include renewables, batteries, small modular reactors, waste heat recovery, and more. In some cases, these assets can support the grid during high demand or during emergencies.

[5] Climate XChange, 2025 *Data Center Regulation Bills*, January 2026, https://www.quorum.us/spreadsheet/external/PnfWNVKdvClmlXRSWXTy/

8. **Transparency:** This category of bills centers on increased reporting requirements, typically mandating that data centers report their energy and water usage, grid enhancing technologies, or any other requirements to provide more accountability on their potential impacts.
9. **Microgrids**: This is an emerging area in the data center space. The bills in this category allow data centers to produce and use their own power using microgrids, which can run independently from the main grid or in conjunction with it, supporting critical infrastructure (such as hospitals and community centers or municipal buildings) during an emergency.

Different States Are Most Vulnerable to Different Impacts

Our analysis began by examining the prevalence of political activity. As we catalogued all 140+ data center bills and mapped them to specific issues, we noticed state-level and regional trends in where legislation was proposed. We overlaid this legislative analysis with the prevalence of community organizing groups, and whether those groups were for or against data center development. We examine those results further at the end of this report.

Our political analysis then fed into the development of our issue lenses. Considering the legislative activity surrounding data centers and the most common themes identified in proposed and enacted legislation, we identified five different issue lenses states may consider as they seek to address data center impacts. These lenses became our framework for identifying states of concern. Our goal is to identify the states most susceptible to the five issues listed below, which will in turn support policymakers in establishing targeted data center guardrails, with an eye towards the unique vulnerabilities of each state. Those five issue lenses include:

- Greenhouse gas emissions
- Energy affordability
- Energy reliability
- Water stress
- Tax revenue and employment

Understanding these factors, alongside an analysis of where data center growth is occurring most rapidly, is essential to identify which data center policy mechanisms might be useful for different states. For each of these factors, a different combination of regulatory approaches would be appropriate. For example, in jurisdictions most concerned with the impact of data center growth on greenhouse gas emissions, a combination of policies focused on co-siting, efficiency, and renewable energy purchase requirements would help to mitigate this impact. See how we map our five issue lenses to our nine bill focus areas from the previous section in the table below (Table 1).

Table 1: Data Center Issue Lenses and Bill Focus Areas

Issue Lens	**Bill Focus Areas**
Greenhouse gas emissions	Efficiency Requirements; Renewable Energy Purchase Requirements; Co-Siting; and Transparency
Energy affordability	Rates and Affordability
Energy reliability	Grid Planning and Reliability; Efficiency Requirements; Co-Siting Requirements; Renewable Energy Purchase Requirements; Microgrids; Transparency
Water stress	Water Use and Other Environmental Factors; Transparency
Tax revenue and employment	Employment, Tax, and Economic Justice; Transparency

Estimating Data Center Growth

Several sources compile information about existing data centers around the country and projected data center growth, however it is difficult to find consistent data across sources due to differences in tracking across states, and limited transparency from data center companies. This analysis is largely dependent on a combination of two sources that identify current and projected data center development. We refer to the states from both of these sources as "data center states" as they are predicted either now or in the future to experience high data center buildout:

- A 2024 white paper from EPRI provides two different datasets: (1) a state-by-state snapshot of total data center demand in megawatt-hours (MWh) in 2023, and (2) data center energy usage as a percent of total state electricity consumption in 2023.[6] CXC used both the total demand and percent of electricity consumed variables in the analysis, as each yielded different selections of states. As we go through each section of the report, we will specify which EPRI dataset we used and why. In either case, EPRI data was used as a proxy for existing data center load.[7] We refer to states from this data set as "high-existing data center states."

[6] EPRI, *Powering Intelligence: Analyzing Artificial Intelligence and Data Center Energy Consumption*, May 2024 https://www.epri.com/research/products/000000003002028905

[7] While EPRI's report offers forward-looking data center load projections for each state, we note that these are based on a fixed multiplier (that is, the same high-, medium-, and low-growth scenarios in every state) of current data center load, and may offer less insight into how the queue of proposed projects is actually developing jurisdiction by jurisdiction.

- A June 2025 Wood Mackenzie analysis tracked proposed data center projects since 2023, ranking the top 15 states in the country by megawatts (MW) from proposed data centers.[8] CXC used this data as a proxy for states where buildout of data centers is expected to be highest, based on load. We refer to states from this data set as "high-growth data center states."

See **Table 2,** below, where we highlight each data source, its label, and which issue-lens analyses where the datasets were used.

Table 2: Data Sets Used to Identify "Data Center States"

Data Source	**Label in Analysis**	**Issue Lens**
EPRI: total data center demand in MWh	"high-existing data center states"	Greenhouse gas emissions; water stress; tax revenue and employment
EPRI: data center energy usage as a percent of total state electricity consumption	"high-existing data center states"	energy affordability; energy reliability
Wood Mackenzie: top 15 states in the country by MW from proposed data centers	"high-growth data center states"	Greenhouse gas emissions; energy affordability; energy reliability; water stress; tax revenue and employment

Between these sources, we can create a picture of data center megawatt-hour load both now and in the future. While we are aware that there is great uncertainty in terms of what percentage of proposed projects will ultimately become operational, for purposes of identifying priority jurisdictions, we are relying on the best available data for data center demand.

Based on EPRI ("high-existing data center states") and Wood Mackenzie ("high-growth data center states") data, the states with the highest current or projected data center load (collectively, "data center states") are shown in **Map 1** and **Table 3**, below.

[8] Wood Mackenzie, *US power struggle: How data centre demand is challenging the electricity market model*, June 2025
https://www.woodmac.com/horizons/us-data-centre-power-demand-challenges-electricity-market-model/

Map 1: “Data Center States” according to EPRI and Wood Mackenzie

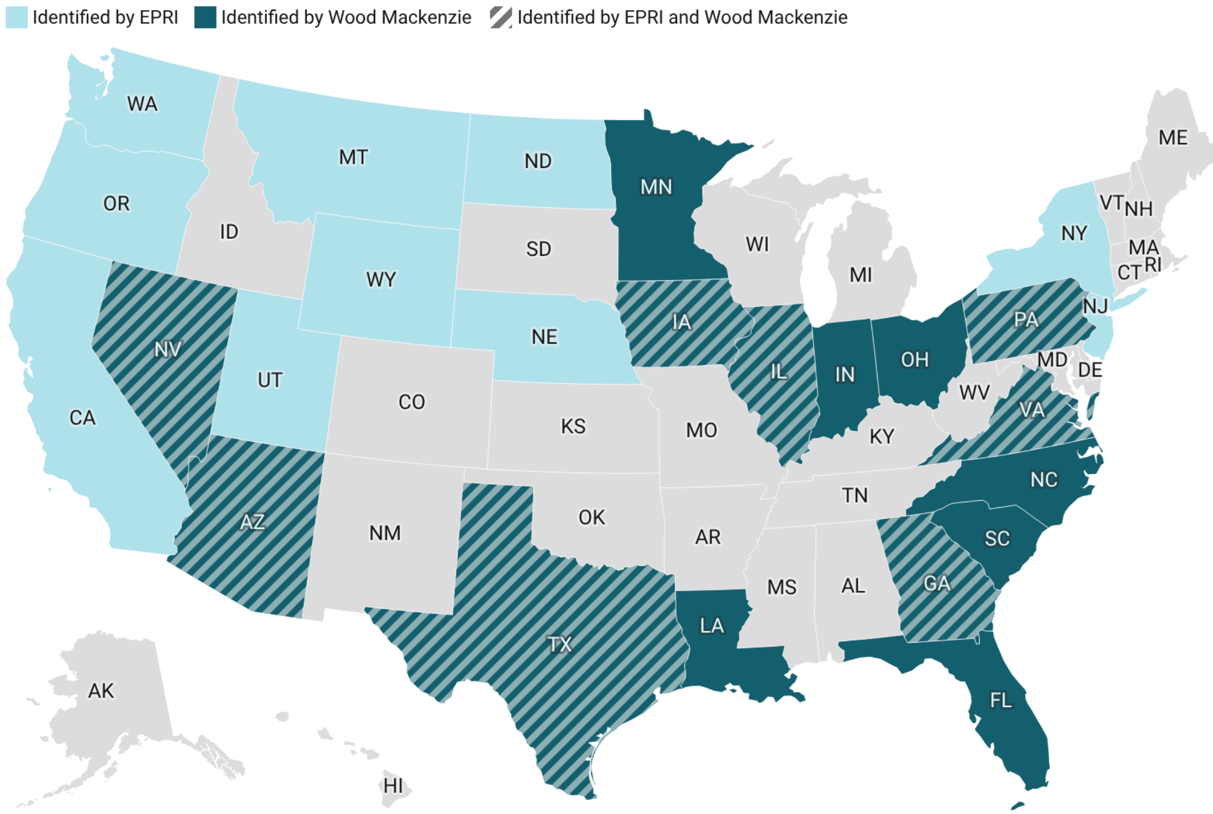

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Table 3: Data Center States and Sources

State	Data Center Growth Source
Arizona	EPRI (MWh/yr); EPRI (% Electricity Consumed); Wood Mackenzie
California	EPRI (MWh/yr)
Florida	Wood Mackenzie
Georgia	EPRI (MWh/yr); EPRI (% Electricity Consumed); Wood Mackenzie
Illinois	EPRI (MWh/yr); EPRI (% Electricity Consumed); Wood Mackenzie
Indiana	Wood Mackenzie
Iowa	EPRI (MWh/yr); EPRI (% Electricity Consumed); Wood Mackenzie
Louisiana	Wood Mackenzie
Minnesota	Wood Mackenzie
Montana	EPRI (% Electricity Consumed)
Nebraska	EPRI (MWh/yr); EPRI (% Electricity Consumed)
Nevada	EPRI (MWh/yr); EPRI (% Electricity Consumed); Wood Mackenzie
New Jersey	EPRI (MWh/yr); EPRI (% Electricity Consumed)
New York	EPRI (MWh/yr)
North Carolina	Wood Mackenzie
North Dakota	EPRI (MWh/yr); EPRI (% Electricity Consumed)
Ohio	Wood Mackenzie
Oregon	EPRI (MWh/yr); EPRI (% Electricity Consumed)
Pennsylvania	EPRI (MWh/yr); Wood Mackenzie
South Carolina	Wood Mackenzie
Texas	EPRI (MWh/yr); EPRI (% Electricity Consumed); Wood Mackenzie
Utah	EPRI (% Electricity Consumed)
Virginia	EPRI (MWh/yr); EPRI (% Electricity Consumed); Wood Mackenzie
Washington	EPRI (MWh/yr); EPRI (% Electricity Consumed)
Wyoming	EPRI (% Electricity Consumed)

Impacts of Data Centers on Power Sector Greenhouse Gas Emissions

Surging electric load growth associated with the spread of data centers could have profound impacts on the greenhouse gas emissions of the power sector.[9] Those impacts were being felt already in 2025, but have the potential to be much more significant in specific states as data centers continue to proliferate. This section identifies which states are most likely to see an increase in electric sector emissions due to data centers.

This portion of the analysis aimed to determine where data center load growth would likely lead to increased emissions, based on EPRI (2023 demand, in MWh) and Wood Mackenzie data on data center buildout, and where new proposed generation and interconnection constraints might further impact emissions using data from the following three sources:

- U.S. Environmental Protection Agency's (EPA) Emissions & Generation Resource Integrated Database (eGRID)[10] figures for power sector GHG-intensity by state. eGRID takes a comprehensive inventory of environmental attributes of electric power systems, and is based on available plant-specific data for all U.S. electricity generating plants that provide power to the electric grid and report data to the EPA. Data is summarized into a 50-state survey of states' current electricity emissions rates, represented in pounds of carbon dioxide equivalent per megawatt-hour (CO_2e lb/MWh).[11]
- U.S. Energy Information Agency's (EIA) Preliminary Monthly Electric Generator Inventory data[12] to identify existing generating capacity by energy source, as well as proposed increases in fossil fuel (namely natural gas) and renewable generation in each jurisdiction between June 2024 and June 2025, independent of data center load growth.

[9] Environmental and Energy Study Institute, *Data Center Energy Needs Could Upend Power Grids and Threaten the Climate*, April 15, 2025 https://www.eesi.org/articles/view/data-center-energy-needs-are-upending-power-grids-and-threatening-the-climate

[10] U.S. EPA, *Emissions & Generation Resource Integrated Database (eGRID) 2023*, https://www.epa.gov/egrid/detailed-data

[11] U.S. EPA, *eGRID Summary Tables 2023*, June 2025 https://www.epa.gov/system/files/documents/2025-06/summary_tables_rev2.pdf

[12] U.S. EIA, *Preliminary Monthly Electric Generator Inventory: June 2025*, https://www.eia.gov/electricity/data/eia860m/

- Lawrence Berkeley National Laboratory's (LBNL) Generator Interconnection Costs to the Transmission System[13] and Queued Up: 2024 Edition[14] reports identify interconnection costs and wait times for renewable energy to connect to the grid.

eGRID helps determine which states might have the highest greenhouse gas emissions associated with data centers if the grid had the same mix of fuels as it currently does, while the EIA and LBNL sources help interpret which of these states are most likely to see their emissions mix change in the future.

Estimating Increases in Emissions Based on Projected Data Center Demand

To estimate associated with current and projected data center load, based on states' current electricity emissions rates, we made the following calculations:

1. Multiplied MW of data center demand in "data center states" from Wood Mackenzie by 8,760 (total hours in a year) to calculate projected data center load in MWh
    a. *(Wood Mackenzie's MW proposed data centers) * 8760 = projected data center loads in MWh*
2. Added the Wood Mackenzie load, in MWh, to EPRI's estimate of existing data center loads in 2023, in MWh, to calculate the total projected load of existing and proposed data centers in MWh by state
    a. *Wood Mackenzie MWh + EPRI's 2023 MWh = total existing and proposed data center load in "data center states" in MWh*
3. Converted EPA's eGRID figures for power sector GHG-intensity by state from pounds CO_2e/MWh to metric tons CO_2e/MWh by dividing
    a. *GHG intensity CO_2e lb/MWh / 2204.62 = GHG intensity CO_2e metric ton/MWh*
4. Multiplied the total MWh data center load per state with eGRID figures for power sector GHG-intensity by state, in metric tons/MWh, to calculate the total emissions from existing and proposed data centers, based on current and projected data center loads, in metric tons CO_2e
    a. *Total "Data center states" load in MWh * GHG intensity CO_2e metric ton/MWh = total "data center states" load in metric tons of CO_2e.*

Figure 1 identifies the top 15 states for greenhouse gas emissions related to data center load demand.

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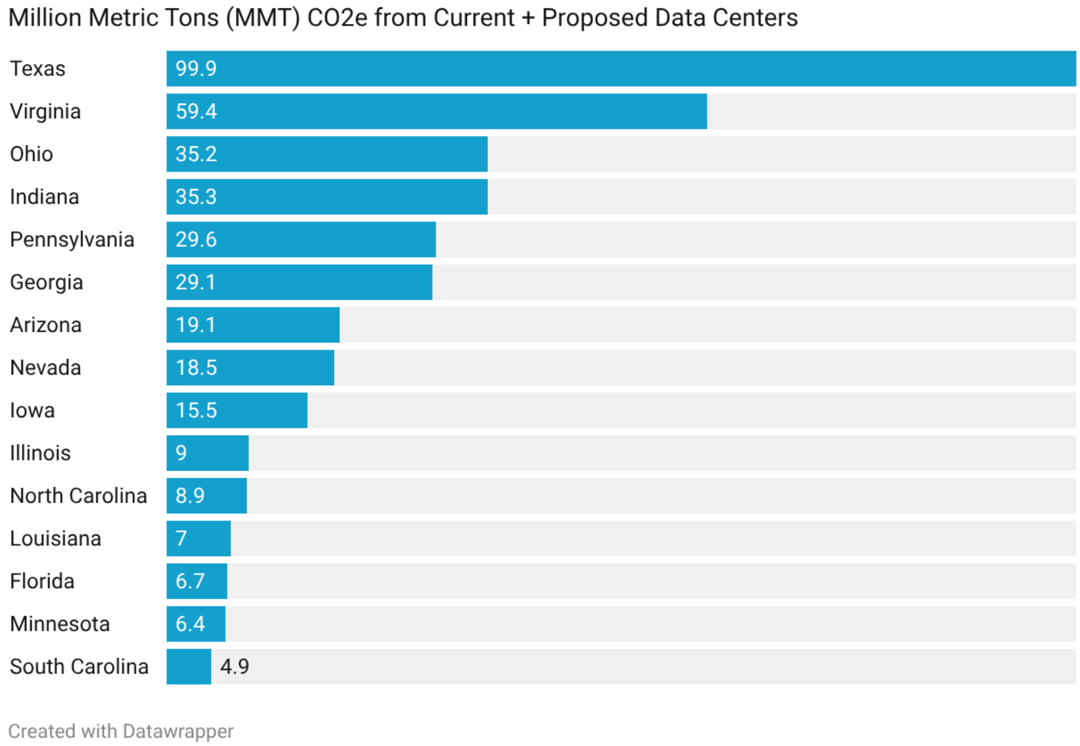
[13] Lawrence Berkeley National Laboratory, *Generator Interconnection Costs to the Transmission System*, June 2023
https://eta-publications.lbl.gov/sites/default/files/berkeley_lab_interconnection_cost_webinar.pdf

[14] Lawrence Berkeley National Laboratory, *Queued Up: 2024 Edition*, April 2024
https://emp.lbl.gov/sites/default/files/2024-04/Queued%20Up%202024%20Edition_R2.pdf

Figure 1: Estimated Emissions from Data Centers in "High-Growth Data Center States"



Increases in Proposed Fossil-fuel Generation

The mix of fossil fuel and renewable energy sources in each state could substantially shift the climate impact of data center energy consumption. Our analysis focused on identifying the states with the largest increases in proposed fossil fuel and renewable energy projects, as a percentage of that state's total electric operating capacity, between June 2024 and June 2025.

Using the EIA's Preliminary Monthly Electric Generator Inventory data[15] we narrowed down the dataset of proposed projects based on two filters:

- Sector was narrowed down to Electric Utility and IPP Non-CHP for both Operating and Planned data, eliminating sectors that would not provide power to data centers and therefore were not as relevant to this analysis, such as the Commercial sector which powers hospitals, universities, research institutions, etc.
- Construction status for "Inventory of Planned Generators" included projects that had not yet begun construction and were at various stages of regulatory approval and planning. Project statuses that were selected include:

[15] U.S. EIA, *Preliminary Monthly Electric Generator Inventory: June 2025*, https://www.eia.gov/electricity/data/eia860m/

- (L) Regulatory approvals pending. Not under construction;
- (P) Planned for installation, but regulatory approvals not initiated; and
- (T) Regulatory approvals received. Not under construction

Once the EIA dataset was narrowed down, we identified which states had particularly high amounts of proposed fossil fuel generation, coming from the "Inventory of Planned Generators", as a percentage of existing capacity (for Electric Utility and IPP Non-CHP sectors). States with high existing and proposed data center load, also referred to as "high-growth data center states," and therefore high potential data center-related emissions are also highlighted in Table 4 below.

Table 4: Highest share of proposed gas projects, relative to operating capacity

State	**Proposed Gas Projects, as a Percentage of 2025 Operating Capacity**	**High-Growth Data Center State**
Tennessee	11.1%	No
Nebraska	8.8%	No
New Mexico	8.4%	No
Pennsylvania	8.3%	Yes
Missouri	7.5%	No
Kansas	7.3%	No
Louisiana	5.9%	Yes
Georgia	5.9%	Yes
Mississippi	4.6%	No
Colorado	4.0%	No
Texas	3.8%	Yes
West Virginia	3.6%	No
Michigan	2.9%	No
Oklahoma	2.5%	No
Illinois	2.5%	Yes

Of these states, a number showed an increase in new proposed gas plants between June 2024 and June 2025, indicating that rising data center demand may be occurring alongside increased fossil fuel development activity. Of the states with an increase in new gas proposals over that time frame, **Tennessee**, **Nebraska**, **Pennsylvania**, **Kansas**, **Georgia**, and **Louisiana** all reported jumps of more than 5% in new gas plant proposals as a percentage of existing capacity in the same time period. **Pennsylvania**, **Louisiana**, and **Georgia** are states with high expected data center growth.

Increases in Proposed Renewable Energy

We also identified which states are currently weighing the most proposed renewable energy projects, as a percentage of total operating capacity in June 2025 (Table 5).

Table 5: States with the highest share of proposed renewable projects, relative to June 2025 operating capacity

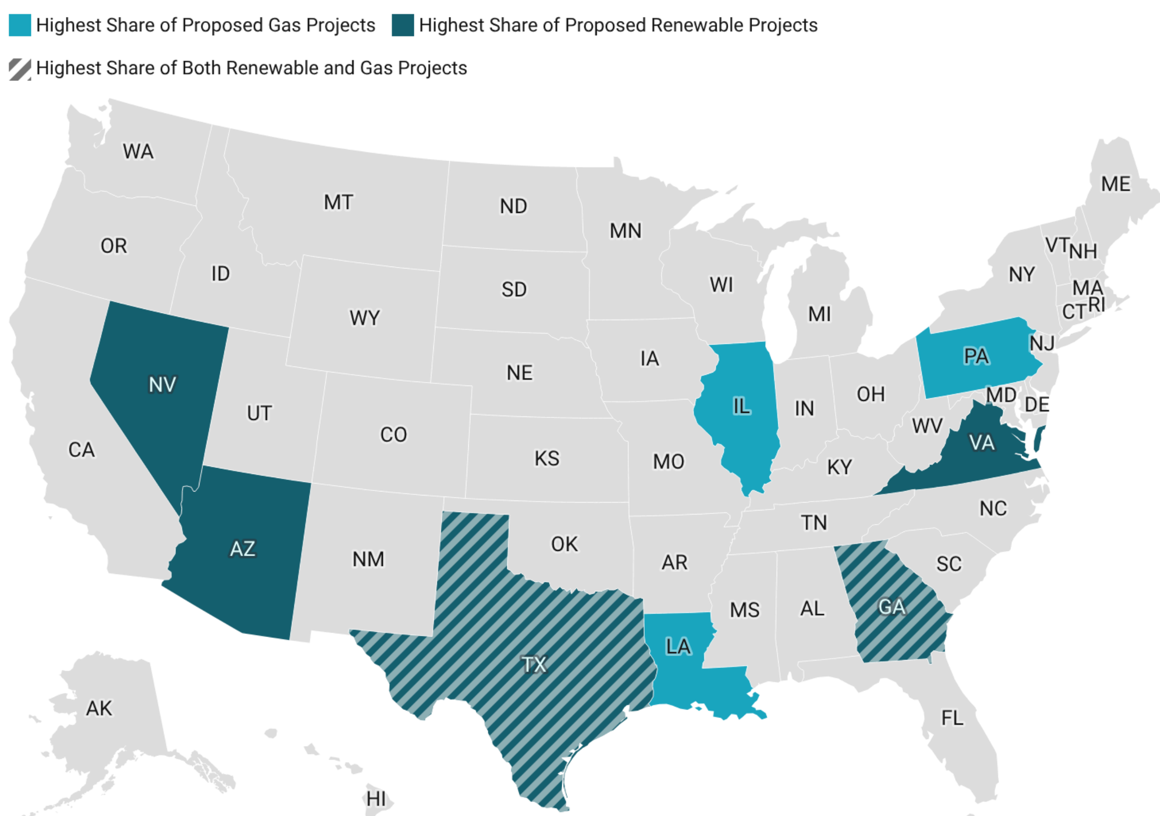
State	Proposed Renewables Projects, as Percentage of 2025 Operating Capacity	High-Growth Data Center State
Oregon	42.4%	No
Utah	29.6%	No
Texas	28.3%	Yes
Nevada	26.5%	Yes
Wyoming	21.3%	No
Montana	20.1%	No
Arizona	16.1%	Yes
Idaho	15.1%	No
Washington	14.4%	No
Colorado	13.8%	No
Virginia	13.1%	Yes
New York	12.9%	No
California	12.0%	No
New Mexico	11.5%	No
Georgia	10.6%	Yes

This data highlights the potential to meet rising data center demand with a surge in renewable energy in "high-growth data center states" like **Texas**, **Virginia**, and **Georgia**, though it is not a guarantee without guardrails in place.

Of the states listed in Table 5, a number showed significant growth in proposed renewable projects between June 2024 and June 2025, indicating that rising data center demand may be powered by renewables in the future if this trend continues. **Oregon**, **Wyoming**, **Washington**, **Nevada**, and **Montana** all reported jumps of more than 10% in renewable project proposals, as percentage of existing operating capacity between 2024 and 2025. Of these states, Nevada has been identified as a state with high projected data center growth, according to Wood Mackenzie.

The map below illustrates where the high rise in data center-related emissions, coupled with trends in proposed energy projects, makes regulating data centers to mitigate their emissions growth the most potentially impactful.

Map 2: "High-Growth Data Center States" with Highest Percent of Proposed Renewable and Gas Projects Relative to 2025 Operating Capacity



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Interconnection Constraints

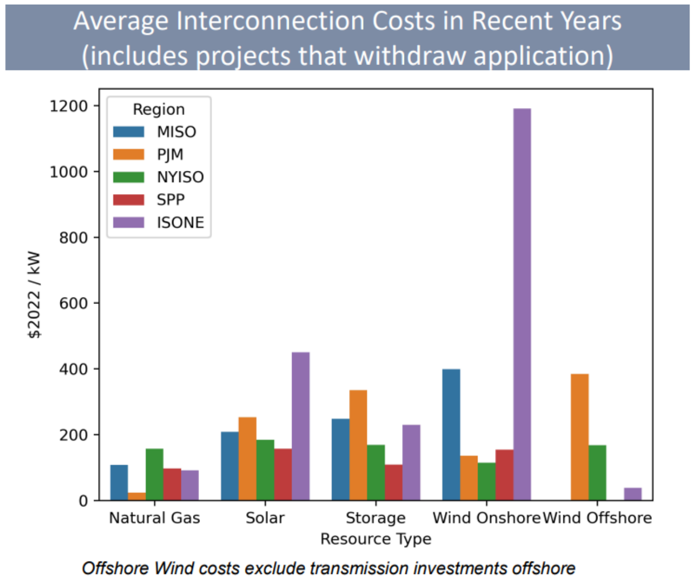
How quickly and cost effectively new renewable resources can be added to the grid is a key variable influencing how likely it is that rising data center demand will be powered by fossil fuel generation. The best metrics to address these variables are regional: the average interconnection queue wait time and average interconnection cost for renewable projects, which, at the transmission scale, are measured for each ISO/RTO region.

The best resources capturing this data are, unfortunately, incomplete. Lawrence Berkeley National Laboratory (LBNL) has spent hundreds of hours combing interconnection queues to assemble their summaries of interconnection costs and queue wait times, and the resulting studies offer a partial view of the country.

In terms of **interconnection cost**, CAISO[16] data is not shareable, and ERCOT[17] and the Western states aren't represented either. Of the regions that have reporting, on average across all energy sources, renewables face the highest interconnection costs in ISO-NE,[18] with PJM[19] and MISO[20] states coming in distantly behind (Figure 2).

[16] CAISO manages electricity service 80% of California's and a small part of Nevada's grid.
[17] ERCOT provides service for 90% of the state of Texas.
[18] ISO-NE states include Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.
[19] PJM states include Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia.
[20] MISO states include Arkansas, Illinois, Indiana, Iowa, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Montana, North Dakota, South Dakota, Texas, and Wisconsin.

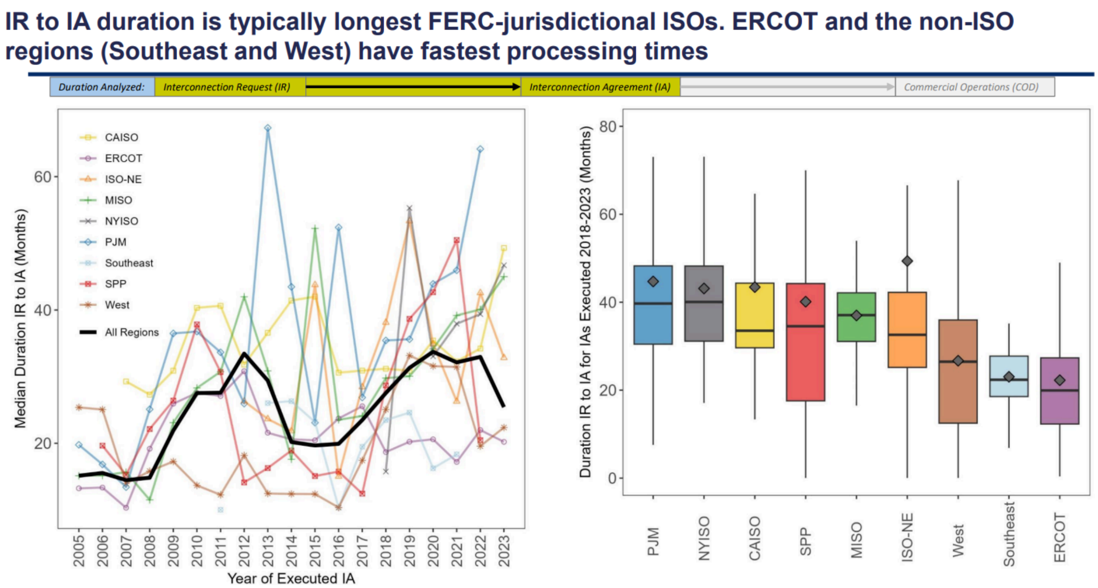
Figure 2: LBNL Average Interconnection Costs[21]



In terms of **interconnection wait times**, LBNL has compared the median duration for projects between interconnection requests and interconnection agreements across all energy types (Figure 3). Under this metric, PJM had the longest lag times, though the pack was more closely sorted.

[21] Lawrence Berkeley National Laboratory, *Generator Interconnection Costs to the Transmission System*, June 2023 https://eta-publications.lbl.gov/sites/default/files/berkeley_lab_interconnection_cost_webinar.pdf

Figure 3: LBNL Interconnection Request to Interconnection Agreement Timeline by ISO/RTO [22]



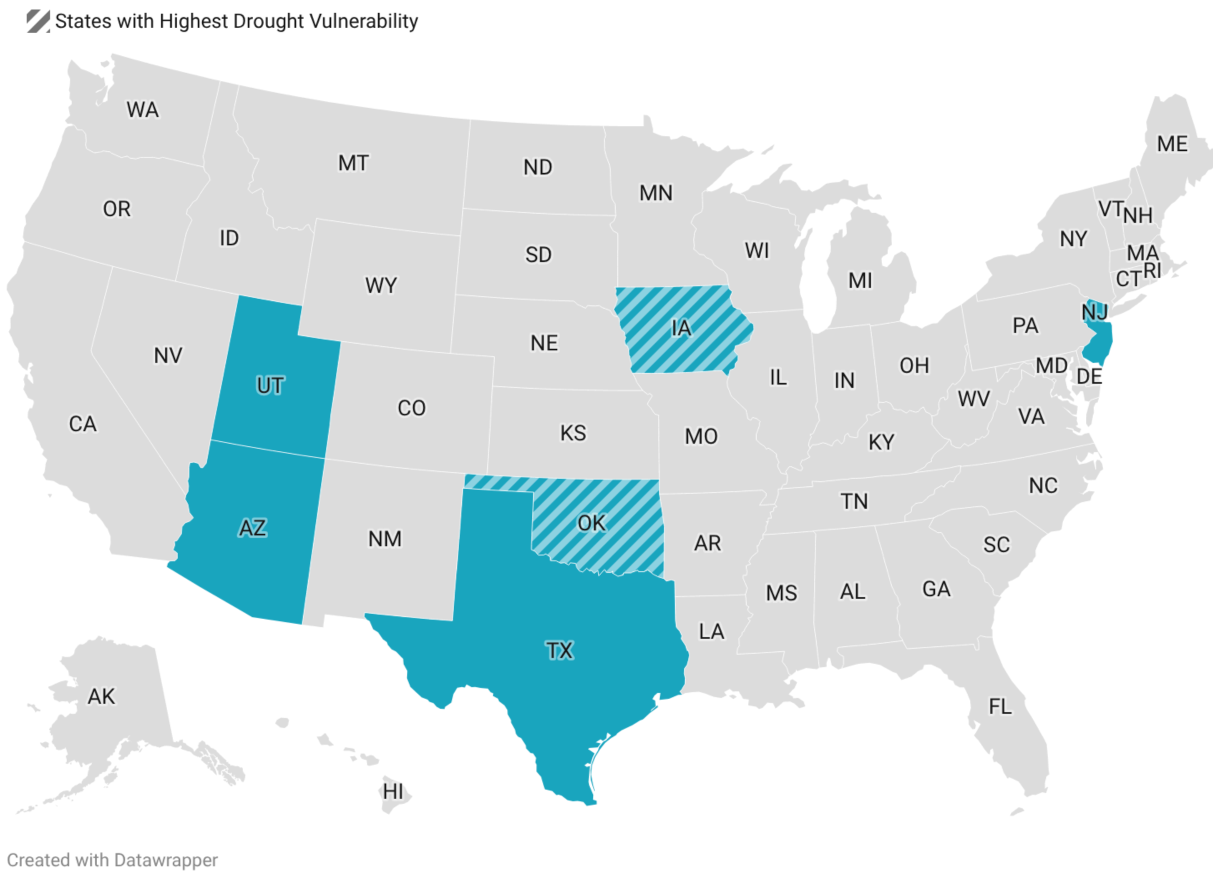
LBNL data shows that **PJM and ISO-NE states**, collectively, place renewable energy under a comparably higher burden to interconnect, potentially making it more difficult in those regions to meet higher energy demand with additional renewable power.

[22] Lawrence Berkeley National Laboratory, *Queued Up*: 2024 *Edition*, April 2024 https://emp.lbl.gov/sites/default/files/2024-04/Queued%20Up%202024%20Edition_R2.pdf

Impacts of Data Centers on Water Security

Data centers require an extraordinary amount of water to cool their operations, which threatens to affect local water supply, especially in drought-vulnerable areas. Legislators across the country have taken steps to study the impact of data center water demand, as well as legislate water efficiency and discharge requirements for data centers.
The states in Map 3 show higher vulnerability to data center water demand due to being a high-growth data center state and being at a high risk for drought.

Map 3: States with High DC Water Vulnerability



The process to assess water vulnerability was two-fold. First, we calculated which states have a high percentage of water withdrawals from data centers. Since this value is not readily available, due to data limitations we discussed earlier, we converted EPRI's 2023 data center energy demand (MWh/year) into a comparable water usage figure by state, using the national average of water use effectiveness for data centers (1.9 liter/kWh).[23] We then compared that figure against total water withdrawals in each state, in order to arrive at a figure representing how much of a state's total water resources are likely consumed by

[23] Environmental and Energy Study Institute, *Data Centers and Water Consumption*, June 2025 https://www.eesi.org/articles/view/data-centers-and-water-consumption

data centers.[24] The EPRI data helped us identify "high existing data center states," based on MWh of data center demand, while the comparison to water withdrawals helped to better understand which states were using a high percentage of their water to meet that data center demand.

Once we had the list of states with the highest proportional water demand from data centers, we filtered this list with an assessment of states with higher drought vulnerability.[25] Drought vulnerability acts as a proxy of where states are most vulnerable to water shortages, considering natural conditions, state water management practices, impact to a state's economy, and ability to adapt to drought conditions. This step allowed us to cross-reference which states are using the most water to cool data centers while simultaneously facing the highest risk for water vulnerability.

Of note, we cross-referenced our short list of data center water withdrawals and high drought vulnerability states with the "high growth data center states" as identified by Wood Mackenzie, though this did not impact our final selection of states. However, in our final table, Arizona, Iowa, and Texas are considered "high growth data center states" according to Wood Mackenzie.

Our analysis identified six states (Table 6) with the highest percentage of water withdrawals for data centers in parallel with the highest vulnerability to drought. Iowa and Oklahoma were identified as having a very high drought risk, in addition to having a higher percentage of data center water withdrawals. Arizona, Texas, New Jersey, and Utah each are at a high risk for drought vulnerability in addition to having a higher percent of data center water withdrawals. Notably, Oklahoma and Utah are not identified as "data center states," but they became priority jurisdictions when their water withdrawals were compared to their existing data center load, alongside their high drought vulnerability.

Additionally, while the percentage of water withdrawals serving data centers may seem low, the data ranged from 0.00 percent to 0.69 percent, with the median at 0.04 percent. Each

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[24] Dieter, C.A., Maupin, M.A., Caldwell, R.R., Harris, M.A., Ivahnenko, T.I., Lovelace, J.K., Barber, N.L., and Linsey, K.S., 2018, *Estimated use of water in the United States in 2015: U.S. Geological Survey Circular* 1441, 65 p., https://pubs.usgs.gov/circ/1441/circ1441.pdf
The U.S. Geological Survey publishes estimated water use by state every five years. Data on state water withdrawals are from 2015.
[25] Climate.gov, *The U.S. drought vulnerability rankings are in: How does your state compare*?, September 2020,
https://www.climate.gov/news-features/featured-images/us-drought-vulnerability-rankings-are-how-does-your-state-compare

state selected as having a high percentage of data center water withdrawals was at least twice the size of the median, if not eight times, highlighting a clear skew in the data.

Table 6: States with Highest Data Center Water Withdrawals and Drought Risk

State	Percentage of Water Withdrawals Serving Data Centers	Drought Vulnerability Status
Iowa	0.32%	Very High
Oklahoma	0.09%	Very High
Arizona	0.14%	High
Texas	0.14%	High
New Jersey	0.10%	High
Utah	0.08%	High

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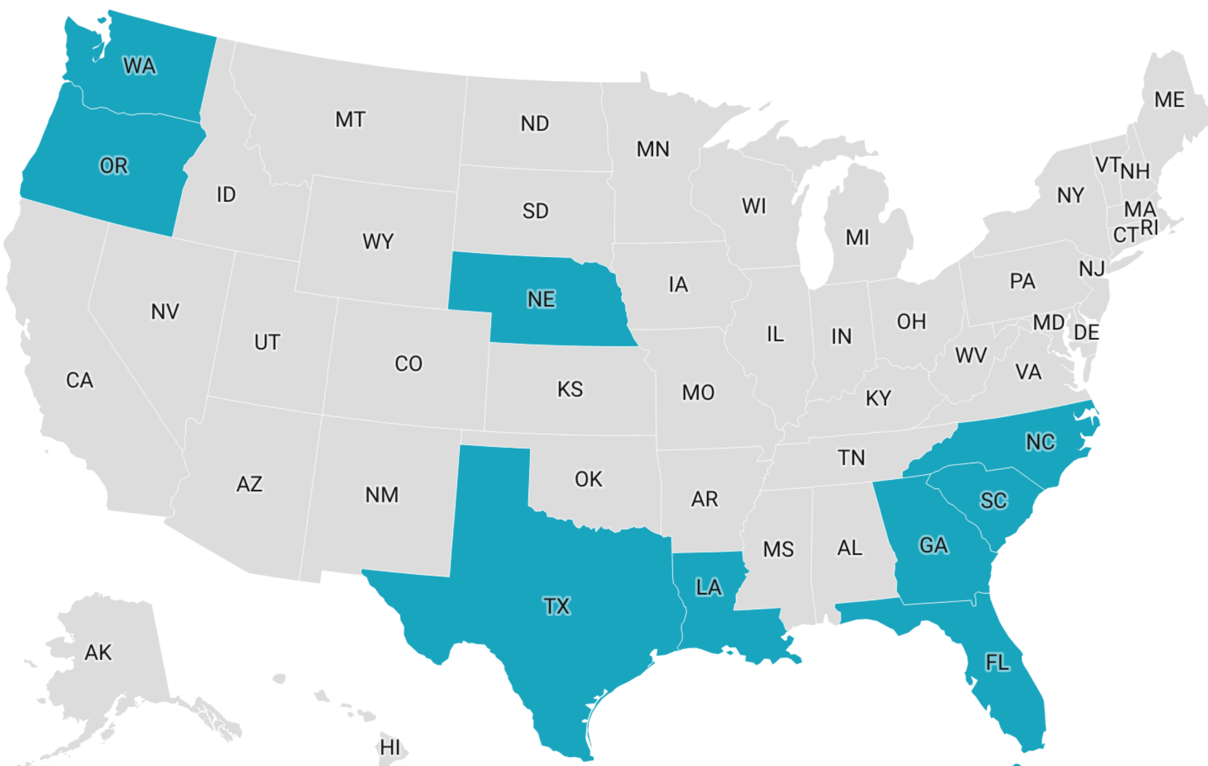
States in this category may benefit particularly from studying and regulating data center water usage, increasing transparency around water usage reporting, regulating discharge of used water, and incentivizing or requiring water efficiency technologies, such as dry cooling or closed loop systems.

Impacts of Data Centers on Energy Reliability

Increasing data center energy demand can contribute to grid reliability issues, as high energy demand coupled with existing grid unreliability may increase the probability that data center demand will contribute to outages or energy shortages. Legislators across the country have approached this issue with a commitment to study energy reliability impacts from data centers, increasing transparency and reporting of proposed interconnections, and either incentivizing or requiring data centers to provide energy services, like demand response and/or voltage and frequency regulation, where applicable.

We identified nine states with higher vulnerability to data center energy demands in terms of grid reliability (Map 4).

Map 4: States with High Vulnerability to Grid Unreliability



Created with Datawrapper

Our process for identifying the most vulnerable states began by selecting states with the most significant existing reliability issues, as measured by 2024 System Average

Interruption Duration Index (SAIDI) values.[26] SAIDI values measure the total time in minutes that an average customer experiences a power outage over one year, and is standardized by the number of customers. SAIDI values provide a picture of which states already face electricity reliability concerns based on outage minutes and can help us better understand where existing reliability concerns would be further exacerbated by high data center growth. This analysis uses SAIDI values for All Events (With Major Events).

Next, we filtered those states with the highest SAIDI values against the "data center states," looking at EPRI for percentage of electricity consumed by data centers, and Wood Mackenzie's analysis of future data center buildout. Both data sets help us understand which states might face the highest reliability risks due to current demand and future data center buildout.

Table 7: Data Center States Vulnerable to Energy Reliability Concerns

State	SAIDI value (minutes)	"High-growth data center state"[27]	Percent of State Electricity Consumed by Data Centers[28]
South Carolina	3136.5	Yes	2.45%
North Carolina	1441.0	Yes	1.92%
Florida	1321.5	Yes	0.56%
Texas	1270.6	Yes	4.59%
Georgia	1229.1	Yes	4.26%
Louisiana	727.5	Yes	0.08%
Nebraska	641.7	No	11.70%
Washington	623.5	No	5.69%
Oregon	591.0	No	11.39%

Table 7 shows which states were identified as being the most vulnerable to energy reliability concerns. **South Carolina**, **North Carolina**, **Florida**, and **Louisiana** were selected for their high SAIDI values and high future data center growth. **Nebraska**, **Washington**, and **Oregon** were selected for their high SAIDI values and high current percent of electricity

[26] U.S. Energy Information Agency, Form EIA-861, Annual Electric Power Industry Report. *Reliability Metrics Using Any Method of U.S. Distribution System by State, 2024 and 2023*, https://www.eia.gov/electricity/annual/html/epa_11_03.html
[27] Based on Wood Mackenzie data
[28] Based on 2023 EPRI data

consumed by data centers. **Texas** and **Georgia** saw high SAIDI values and high current and future data center buildout.

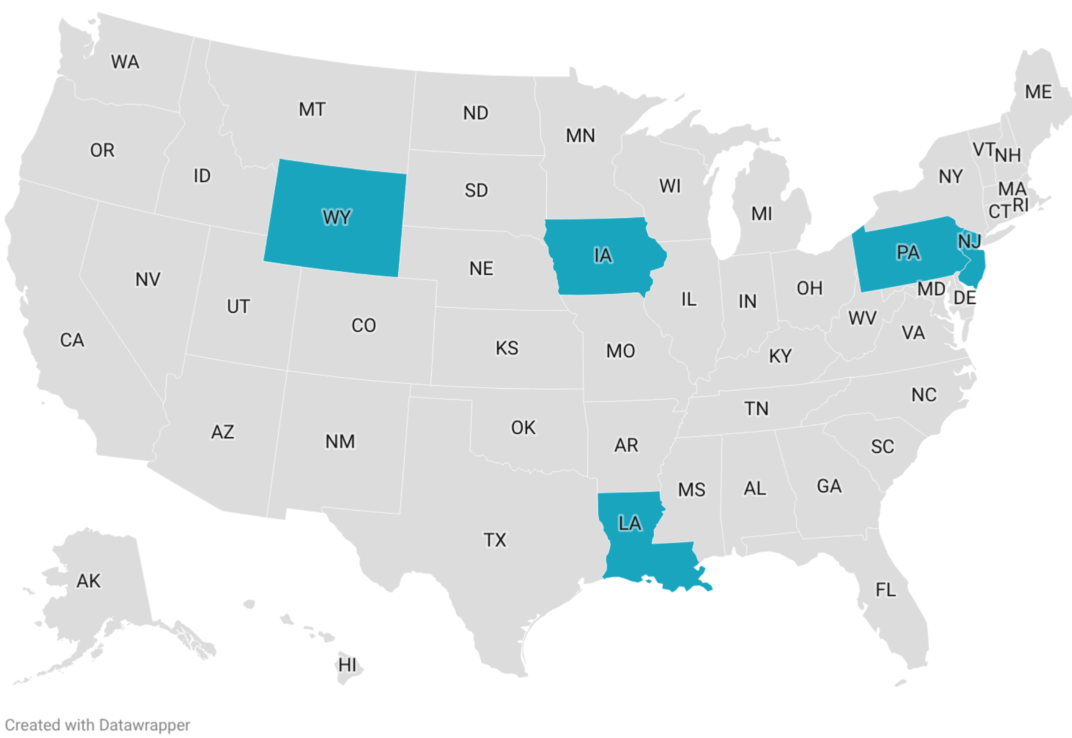
Within these nine states facing exacerbated reliability concerns from data centers, policymakers may be particularly interested in regulating data center operations to support the electric grid, such as demand response, grid enhancing technologies, and voltage or frequency regulation. Policymakers may also consider allowing data centers to bring their own power, provided that those options are from clean and renewable sources.

Impacts of Data Centers on Energy Affordability

As data centers spike energy demand, they also threaten to spike energy prices, particularly as they force utilities to undertake expensive grid upgrades to service them. Data centers may also force the grid to rely on expensive peaker plants for more hours of the year. Legislators across the country have approached these issues through a combination of study bills and ratemaking requirements that would force data centers to pay for their fair share of the costs for grid upgrades and a shifting power mix.

We identified five states with a high vulnerability to data center-related energy price spikes (Map 5). To find these states most vulnerable to price spikes, we used May 2025 EIA data on residential energy prices by state, filtering for the states with the highest energy prices.[29] Next, we calculated the energy burden per capita, starting with U.S. Department of Energy data showing the average annual energy cost by state,[30] standardized by the average number of people per household in each state.[31]

Map 5: Data Center States with High Energy Burdens



[29] U.S. Energy Information Agency, *May 2025 Electric Power Monthly*, May 2025 https://www.eia.gov/electricity/monthly/
[30] U.S. Department of Energy, *Low-income Energy Affordability Data Tool* https://www.energy.gov/scep/slsc/lead-tool
[31] Statistica, *Average size of households in the United States in 2021, by state*, November 2025 https://www.statista.com/statistics/242265/average-size-of-us-households-by-state/

We combined the lists of states with either the highest energy prices or the highest energy burden per capita, and filtered this against the "data center states." We used the EPRI dataset identifying the states with the highest percent of energy consumed by data centers. We opted for this metric to pinpoint which state grids see the most current use from data centers. We also used the high-growth data center dataset from Wood Mackenzie to better understand which states face increased data center buildout in the future.

In total, five states selected for vulnerabilities to energy affordability (Table XX). New Jersey was identified for its high energy prices and high percent of current data center electricity consumed. Pennsylvania was selected for its moderately high energy prices and its high energy burden alongside high expected future data center growth. **Wyoming**, **Louisiana**, and **Iowa** were each selected for their high energy burden, despite the fact that they had some of the lowest electricity prices on average. Wyoming has a high current percentage of electricity consumed by data centers, while Louisiana is expected to see high future data center growth. Iowa has high current and future projected data center growth.

Table 8: Data Center States With High Energy Burdens

State	Energy Price (cents per kilowatt hour)	Energy Burden per capita median income
New Jersey	17.54	2.57%
Louisiana	9.78	3.99%
Pennsylvania	12.99	4.10%
Iowa	9.19	3.92%
Wyoming	9.83	4.26%

In the states facing affordability concerns, policymakers should prioritize legislation requiring new ratemaking structures to fairly attribute the cost of grid upgrades to the data centers that necessitate them. In addition, data centers can also be required to contribute to bill assistance programs.

Impacts of Data Center Subsidies on State Revenues and Employment

Most states already offer some form of subsidy for data center development. Subsidies fall on a spectrum — states may offer subsidies to entice data center development or may require that the data center meet a certain set of requirements to receive subsidies. States may offer incentives with minimal to no strings attached (such as investment requirements, minimal job creation requirements, or simply just property tax or sales and use tax breaks).

On the other end, states may require more stringent requirements in exchange for tax breaks, such as meeting clean energy targets, energy and water use reporting, or requiring the development of community benefits agreements. Most commonly, states are opting to attract data centers with minimal strings attached. With states investing massive sums to lure data centers, questions arise surrounding the amount that states are spending, and if they are seeing a return on that investment.

Step one of our analysis was to see which states offer data center incentives, and which of those states require disclosure of those subsidy costs. We used a report from Good Jobs First that identifies which states require disclosure of data center subsidy costs,[32] and overlayed that with the 37 states that currently offer data center incentives, including Massachusetts.[33, 34] Of the 37 states with incentives, 11 do not require any disclosure of subsidy costs. We took those 11 states and filtered them through the EPRI data set of data center demand in MWh and the Wood Mackenzie data set of "high-growth data center states" and ultimately found four "data center states" that do not require disclosure of their subsidies: Pennsylvania, Indiana, North Carolina, and North Dakota (Map 6).

These results pinpoint a glaring transparency concern with data center subsidization. There are 11 states offering subsidies, with no mechanism for disclosing those subsidy amounts, and no information on how much money they may be losing to data centers.

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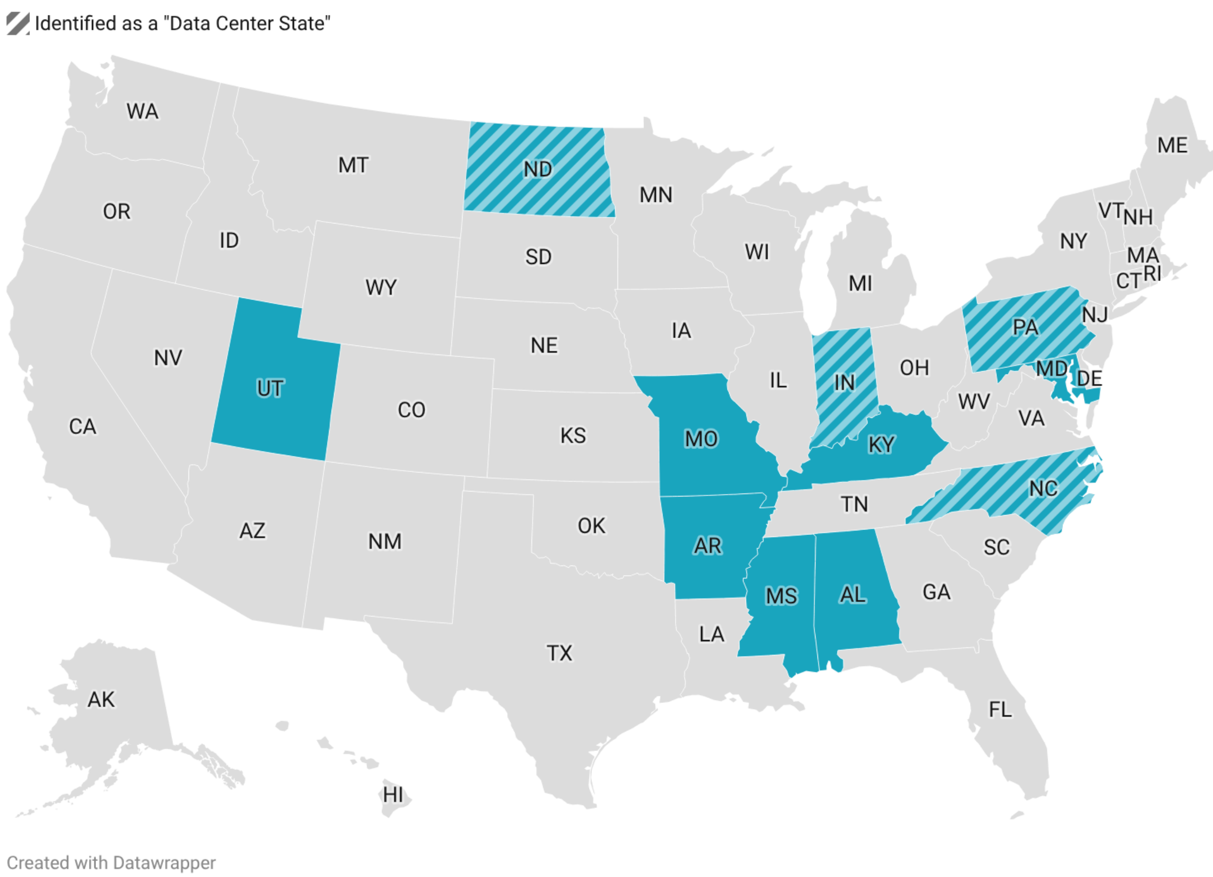
[32] Good Jobs First, *Cloudy with a Loss of Spending Control: How Data Centers Are Endangering State Budgets*, April 2025 https://goodjobsfirst.org/cloudy-with-a-loss-of-spending-control-how-data-centers-are-endangering-state-budgets/

[33] Husch Blackwell, *Tax Incentives for Data Centers 50 State Survey*, 2024 https://hbfiles.blob.core.windows.net/webfiles/TaxIncentivesforDataCenters50StateSurvey.pdf

[34] According to Husch Blackwell's *Tax Incentives for Data Centers 50 State Survey*, 36 states offer data center incentives. Massachusetts established an incentive in December 2024, bringing the total number of states to offer data center incentives to 37. https://www.mass.gov/technical-information-release/tir-25-5-tax-provisions-in-certain-massachusetts-legislation-enacted-in-2024#iv-new-sales-and-use-tax-exemption-for-qualified-data-centers

Further, four of these states have been identified as states that are currently experiencing or may experience high data center growth in the future, making these states especially susceptible to transparency concerns, where an increasing amount of money could be (or is already) flowing to the centers, with no means of tracking those investments, and no means of determining if the state is seeing any return on those investments.

Map 6: States that do not require disclosure of their data center incentives



To look at the other side of the subsidy spectrum, we returned to the Good Jobs First report highlighting ten states with data center subsidies over $100 million. These states, inherently, require disclosure or at least partial disclosure of subsidy amounts. For a full list of these states and their subsidy amounts, alongside the “data center states” that do not require disclosure, see Table 9.

We took these ten states, and filtered them through the same EPRI and Wood Mackenzie datasets to identify which states are experiencing current and future data center growth. All ten states except Tennessee were flagged as “data center states,” suggesting that

Tennessee has spent the most on data center subsidization, but has no current or future growth to show for that investment.

Table 9: States that Offer More than $100 Million in Annual Data Center Incentives

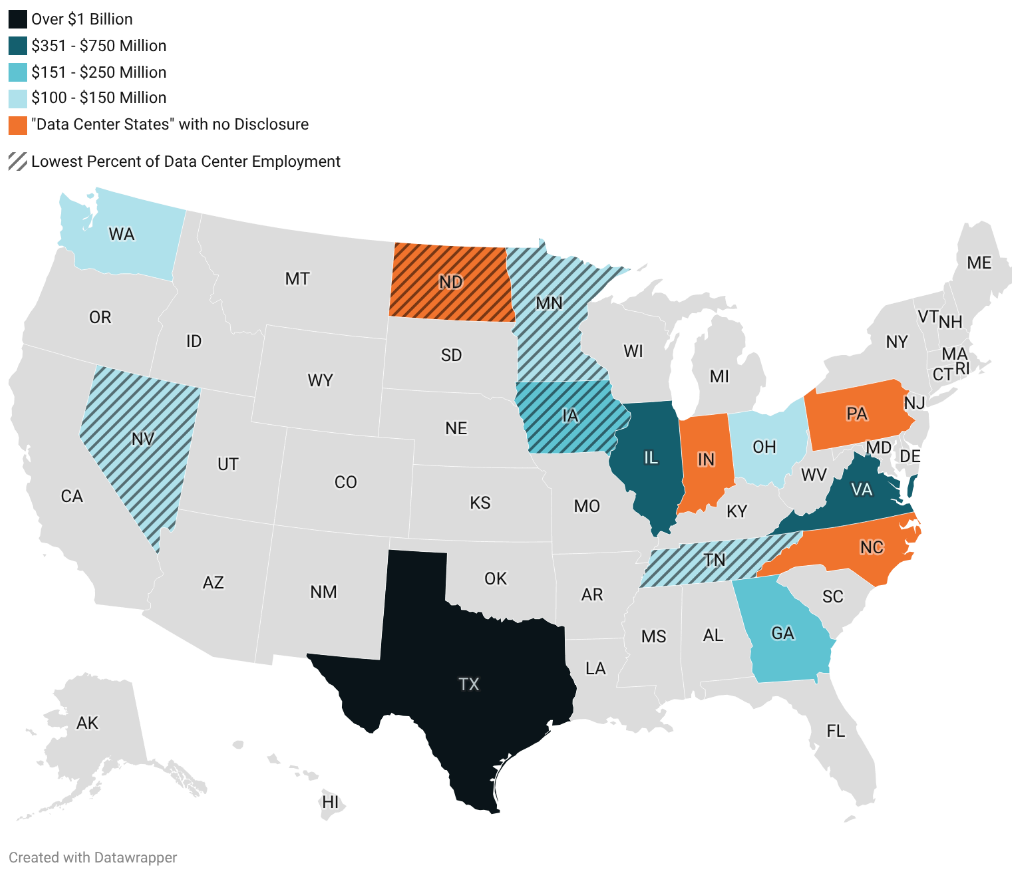
State	Total Data Center Incentives	Disclosure	"Data Center State"
Texas	$1,015,600,000	Yes	Yes
Virginia	$732,800,000	Yes	Yes
Illinois	$370,609,085	Yes	Yes
Georgia	$296,000,000	Yes	Yes
Iowa*	$151,100,000	Partial	Yes
Nevada*	$139,968,442	Yes	Yes
Ohio	$127,400,000	Yes	Yes
Minnesota*	$114,200,000	Yes	Yes
Washington	$112,130,000	Yes	Yes
Tennessee*	$103,600,000	Yes	No

**State has less than 2 percent of all data center employment in the U.S.*
Created with Datawrapper

As an additional layer of analysis on the highest-subsidizing states, we looked at states with the lowest concentration of data center employment per the U.S. Census.[35] The Census looked at what percent of the 501,000 data center employees total work in each state. We found that four states — **Iowa**, **Minnesota**, **Nevada**, and **Tennessee** — each had less than 2 percent of data center employment, while subsequently have spent more than 100 million in subsidies. This suggests that outsized data center spending does not necessarily equate to higher employment payoffs. See Map 7 for a full summary of our results.

[35] U.S. Census Bureau, *Data Centers Growing Fast and Reshaping Local Economies*, January 2025 https://www.census.gov/library/stories/2025/01/data-centers.html

Map 7: States with Highest Data Center Subsidies, No Disclosure, and Low Employment



We recognize that additional factors, such as population, will inherently play a role in data center employment (the Census found that Texas and California had the highest data center employment in the country). However, our findings do poke a hole in the idea that the more states incentivize data centers, the more they will see increased employment benefits. To put this in perspective, Tennessee is the 15th most populous U.S. state, has some of the highest data center subsidies, and some of the lowest percentage of data center employment.[36]

With a lack of definitive data on the economic impacts of datacenters, we recognize that much of this information is incomplete. For those states that offer incentives, have been identified as "data center states," and do not require subsidy disclosure, a logical first step

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[36] U.S. Census Bureau, *Vintage 2024 National and State Population Estimates*, December 2024 https://www.census.gov/newsroom/press-kits/2024/national-state-population-estimates.html

is to require disclosure of data center subsidies to better understand their economic impact on the state.

Policymakers should approach subsidies with caution, as more spending does not necessarily equate to greater economic benefits. Based on our analysis, states should not expand existing incentives or establish new ones. In states that already offer incentives, **requiring disclosure of incentive amounts** should be a first step for state policymakers. States can also **reconsider these subsidies,** or require that **incentives are tied to stringent requirements** around clean energy, energy efficiency, job creation, local investment, and energy affordability. Additionally, requiring **community benefits agreements** and long-term, well-paying **employment opportunities that prioritize local hiring and union labor** can help workers and local communities see some of the benefits they are promised.

Finally, states may also consider rescinding existing tax breaks and funneling that revenue to state specific policy concerns such as economic development, water conservation, renewable energy, and more.

Data Centers Drawing Political Attention

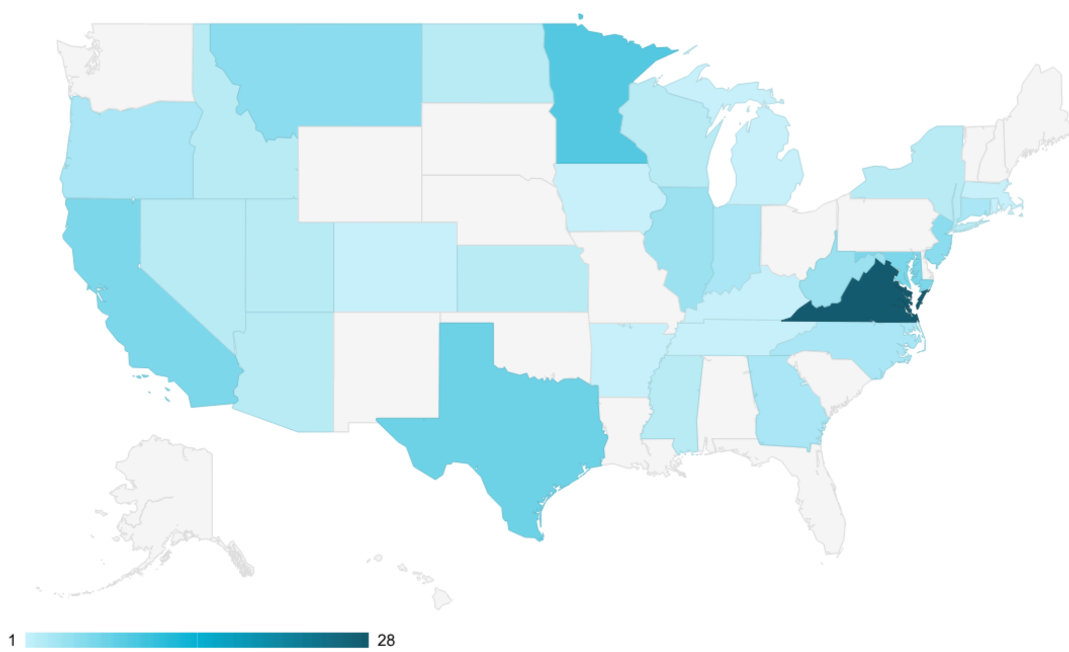
Lastly, our analysis sought to identify states where data centers are already attracting high amounts of political attention. This is measured either at the level of persistent community opposition, or of drawing significant legislative attention.

Legislative Attention

In 2025 sessions, our team tracked over 140 proposed state-level data center bills across the country from 34 different states. We have grouped these bills by issue area, and also aggregated them together to show where data centers are attracting the most legislative attention already. Virginia currently has the most data centers in the country, and also saw the most legislative activity surrounding data centers.

The map below shows the geographic spread of bills under consideration in 2025, as of November 2025.

Map 8: Data Center Bills Under Consideration in 2025 Legislative Sessions



In terms of the number of data center-related bills introduced in 2025 sessions, the top 5 states include:

- **Virginia**: 30 bills
- **Minnesota**: 15 bills
- **Maryland**: 10 bills

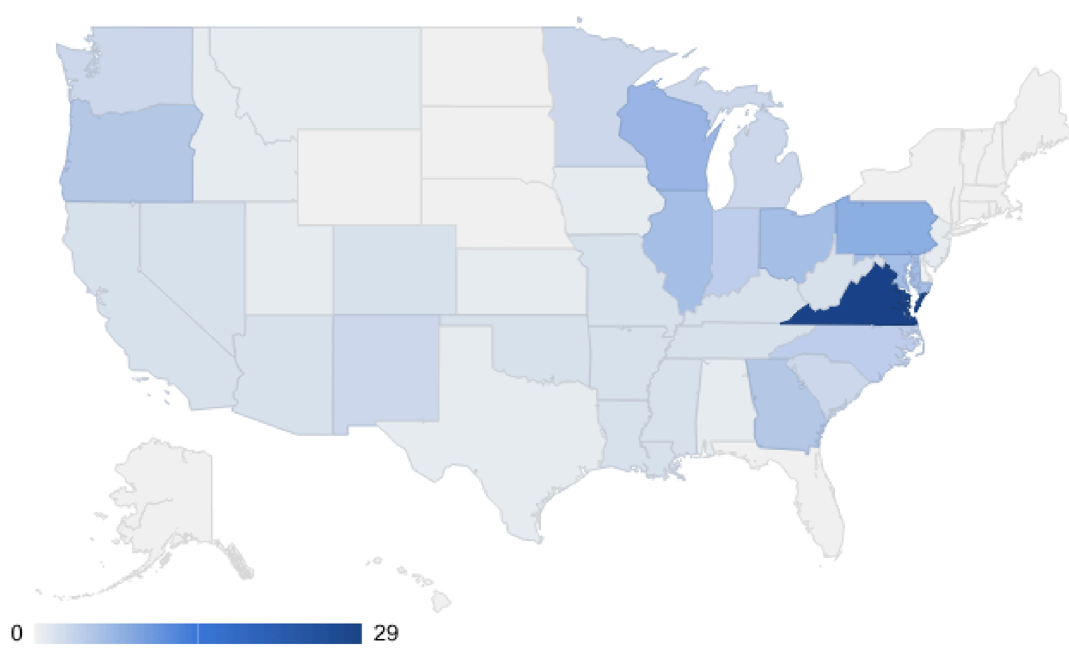
* **Texas**: 9 bills
* **New Jersey:** 8 bills

Community Engagement

We have also undertaken a landscape analysis of where, around the country, different community organizations are weighing in on data center development. We have observed that most engagement is in opposition to data centers. We have identified 100 different groups across the country. While that landscape analysis is necessarily incomplete, it tends to show where local engagement on these issues is highest, and is comparable in scale to other, similar landscape analyses with public results.[37]

Our search was guided by identifying publications or news articles published by advocacy organizations, or articles they were cited in, as well as information collected from a Data Center Listening Session we conducted with the audience of our State Climate Policy Network in June 2025.[38]

Map 9: Data Center Advocacy Groups by State



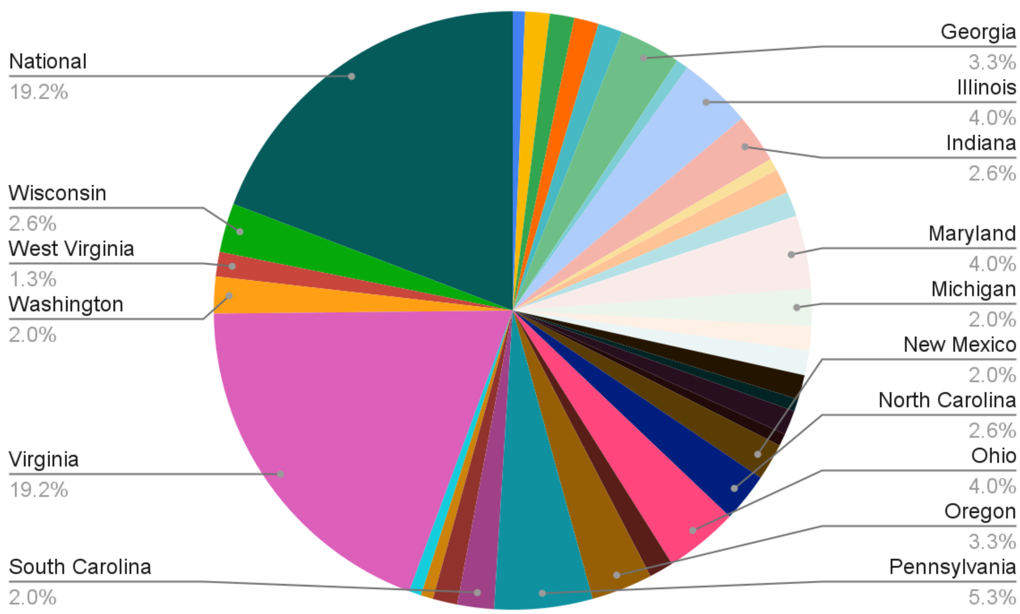
[37] Data Center Watch, *$64 billion of data center projects have been blocked or delayed amid local opposition: Local activism threatens to derail the U.S. data center boom*, March 2025 https://static1.squarespace.com/static/67819031da098341c45ac84a/t/6849bcfe640a951f79e00715/1749662975141/Data+Center+Watch+Report+.pdf

[38] Climate XChange, *Recap: Data Centers and State Climate Policy*, May 2025 https://climate-xchange.org/2025/05/webinar-recap-data-centers-and-state-climate-policy/

Unsurprisingly, the far-and-away leader among states for community engagement was **Virginia**, with at least 29 different groups identified that are active on data center policy. Other states with the highest number of identified groups working on data centers include **Pennsylvania, Wisconsin, Maryland, Ohio,** and **Illinois**. Notes on the types of groups active in each leading state follow.

This landscape analysis also identified dozens of national organizations active on state-level data center policy, such as the Union of Concern Scientists and National Caucus of Environmental Legislators.[39,40]

Figure 4: Data Center Advocacy Groups by State



[39] Union of Concerned Scientists, *Finally, Something Everyone Agrees On: Data Centers Should Cover Their Own Costs*, November 2025, https://blog.ucs.org/mike-jacobs/finally-something-everyone-agrees-on-data-centers-should-cover-their-own-costs/

[40] National Caucus of Environmental Legislators, *States Act to Align Data Center Energy Demand with Climate Goals*, April 2025, https://www.ncelenviro.org/articles/states-act-to-align-data-center-energy-demand-with-climate-goals/

Virginia is the only state in our analysis that organizes many of its data center advocates into a common working group, the Virginia Data Center Reform Coalition.[41] A large portion of the organizations therein are local or county level groups (i.e. Coalition to Save Culpeper, Loudon Climate Project, Protect Catlett). Though we did not count them in our analysis, a number of neighborhood groups or Home Owners Associations (HOAs) are also represented. Most of these organizations are not publishing any public facing materials, but rather are engaging with elected officials during the legislative session.

Wisconsin includes multiple regional groups in the midwest, along with multiple state specific organizations. Wisconsin Conservation Voters assisted in the drafting of a bill that would require increased transparency from data centers.[42] Alliance for the Great Lakes has also considered the impacts of data centers in the region, specifically related to water usage.[43] The Clean Economy Coalition of Wisconsin is calling for a pause on data center development until plans are in place for protecting climate goals, energy infrastructure and energy ratepayers.[44]

Pennsylvania is represented by eight groups, six of which only work in the state. The Pennsylvania Utility Law Project,[45] for example, has encouraged Pennsylvania's PUC to adopt stricter terms and conditions to protect ratepayers. A county level organization, Protect PT, is tracking proposed data center buildouts and their potential impacts.[46]

Maryland has six organizations working in the state, most of which are in both Maryland and Virginia. Chesapeake Bay Program is one of many Maryland groups that are also active in the Virginia Data Center Reform Coalition.[47] Chesapeake Climate Action Network, also involved in Virginia's coalition, has been advocating for strengthened accountability, ratepayer protections, and raising sustainability concerns in 2025 sessions in Maryland.[48]

Ohio has six organizations that were identified in our analysis, working on both traditional environmental advocacy and consumer protections. The Office of the Ohio Consumers

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[41] Virginia Data Center Reform Coalition, https://www.pecva.org/region/regional-state-national-region/general-assembly/virginia-data-center-reform-coalition/
[42] Wisconsin Conservation Voters, https://conservationvoters.org/
[43] Alliance for the Great Lakes, https://greatlakes.org/
[44] Clean Economy Coalition of Wisconsin, *Data Center Accountability Framework*, January 2026, https://cleaneconomywi.com/wp-content/uploads/2026/01/CECW-Data-Center-Accountability-Framework.pdf
[45] Pennsylvania Utility Law Project, https://www.pautilitylawproject.org/
[46] Protect PT, https://www.protectpt.org/
[47] Chesapeake Bay Program, https://www.chesapeakebay.net/
[48] Chesapeake Climate Action Network, https://ccanactionfund.org/

Council, for example, is concerned with ratepayer protection and who is bearing the burden of increased data center buildout.[49] Conversely, organizations such as the Headwaters to the Ohio Water Network are concerned with protecting water resources from new data centers.[50]

Illinois is covered by six different state and regional groups tracking this topic. The Environment Illinois Research & Education Center, for example, has contributed to public analysis of data center growth in the Chicago region.[51] The Illinois Environmental Council has added analysis of data center policy to its Chicago city council scorecards.[52]

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[49] Office of the Ohio Consumers Council, https://www.occ.ohio.gov/

[50] Headwaters to the Ohio Water Network, https://h2owaternetwork.org/

[51] Environment Illinois, *New report details environmental, consumer costs of AI, crypto and data centers*, January 2025 https://environmentamerica.org/illinois/media-center/release-new-report-details-environmental-consumer-costs-of-ai-crypto-and-data-centers/

[52] Illinois Environmental Council, 2025 *Chicago City Council Scorecard*, https://ilenviro.org/2025-chicago-scorecard/

Conclusion

In this report, we have laid out five different lenses for understanding how data center policy might be prioritized in different jurisdictions: greenhouse gas emissions, water stress, energy reliability, energy affordability, and tax and employment. For states in each of these categories, different types of policy instruments might be prioritized. CXC will publish a series of five policy toolkits on data center impacts in early 2026.

There are, however, a few states that appear under several of these lenses, and which might prioritize an urgent, holistic approach to data center policy, including:

- **Texas**, with far and away the highest projections for future data center emissions and current subsidies, as well as noted water vulnerability and energy reliability concerns.
- **Virginia**, the current leader in data center development worldwide, continues to be a priority jurisdiction under the greenhouse gas and subsidies lenses, though we note that it has received intense attention from policymakers in recent years, and may be overstepped in the years ahead by other emerging states.
- **Iowa**, though a smaller state, still projects substantial potential greenhouse gas emissions, while being notably vulnerable to impacts regarding water and energy affordability and already heavily subsidizes data centers while seeing minimal employment gains
- The great lakes region, including **Pennsylvania**, **Ohio**, and **Illinois**, all pose noted potential greenhouse gas emissions potentials, as well as subsidy concerns, and, in some cases, reliability and affordability concerns as well.

One surprising omission from our analysis was **California**. Though California is a leading market for data centers currently, a combination of strong existing climate and energy policy and less projected future development combined to keep California off our list of priority states under each lens we considered. While California can offer many states some best practices in this field, we caution against complacency: the sheer size of the existing data center market in California means it remains a key jurisdiction to watch in the years ahead.