Tax Revenue & Economic Development Subgroup Findings Recommended to Full Data Center Workgroup

Draft Finding T.8 <u>Data Center Tax Landscape Across the United States</u>

- The data center tax landscape across the United States is varied.
    - Sales tax exemptions for data centers have existed for decades in some states. These exemptions follow the same principles that have supported long-standing exemptions for other large capital intensive industries. 41 states currently exempt sales tax on manufacturing equipment.
        - Under RCW 82.08.02565 and RCW 82.12.02565, Washington provides a sales and use tax exemption for machinery and equipment used directly in a manufacturing operation – this exemption does not extend to buildings and certain other fixtures such as utility systems for heating, air conditioning, communications, plumbing, or electrical.
    - Sales tax exemptions for data centers have also been used as economic development tools in states offering these incentives and are deemed by data center developers as an important siting criterion.
    - Oregon does not have a sales tax but offers property tax incentives and abatements for investments in designated opportunity zones.
    - States that have seen the most growth in data centers are typically those with robust incentives. California is an exception because of Silicon Valley and its technology industry.
    - Currently 37 states offer data centers tax incentives. Several states have adopted or created new sales tax exemption programs for data centers (i.e., Arkansas, Florida, Kansas, Kentucky, Louisiana, Massachusetts, Michigan, Minnesota, Wisconsin, and West Virginia all adopted new or expanded programs since 2023), while at least two states have considered pausing their programs within the last two years (The Governors of Georgia and Ohio vetoed legislation to pause programs).
    - As they have always done in developing their economic development toolkit, states calibrate their incentives to ensure their policy priorities are met. A sampling of requirements placed on incentives reflect this calibration, including:
        - A minimum investment,
        - Job and/or salary requirements,
        - Various reporting requirements,
        - Penalties or clawbacks with repayment of taxes,
        - Exemption of sales tax on purchases of electricity,
        - Sustainability/Green building certification.
        - Tailor policy to specific data center models (self-performing data centers versus multi-tenant data centers).
        - Empower a state agency (Ohio) with discretion so as to somewhat customize its incentives and the period of time that the exemption can last on a project-by-project basis.
        - Minnesota provides a tax rebate instead of an exemption which, according to industry, makes the exemption administratively burdensome to implement.

        - Tailoring the items eligible for exemption and overall terms to meet each state's respective priorities, such as limiting an exemption on power purchases but extending the overall term on equipment exemptions.
    - Georgia is currently the fastest growing market. Virginia constitutes the largest data center market.
    - Virginia has also created a Mega Data Center Incentive Program which includes a longer extension of existing sales and use tax exemptions for data center companies dependent on specific investment and job creation targets.
    - Two audits have been done in Virginia and Georgia to examine the impacts of their tax incentives for data centers:
        - Both audits concluded that up to 90% of investment wouldn't have happened if not for each state's incentives provided to data centers.
    - In Virginia's audit of its data center tax incentives, they further concluded:
        - Overall, Virginia's data center incentives program provides more benefit than "the average Virginia incentive."
        - Virginia's data center incentives create more jobs than its other incentives.
        - Personal income was higher from data center jobs than jobs created by other Virginia tax incentives.
        - Virginia's GDP was higher under data center incentives than under other incentives.
        - Virginia's return in revenue per dollar forgone under its data center tax incentives was higher than that from other incentives.

Draft Finding T.9 <u>Biggest Risks Data Centers Face</u>

- Industry indicated that the biggest risks data centers face include the following:
    - Business uncertainty around tariffs (federal policy) as it makes it hard to make deals with customers because the true costs are unknown.
    - Also, existing supply chain constraints create uncertainty for time to market.
    - Uncertainty around power. Demand from businesses and consumers, including AI, continues to exceed existing data center capacity. As data centers develop and need power for operations to serve demand, lead times for power delivery and energization in jurisdictions are increasing.

Draft Finding T.12 <u>No Labor Shortage in Washington to Meet Data Center Needs. Future Labor Profile Depends on Demand.</u>

- There is no shortage of labor in Washington to meet data center's needs in terms of new construction, refurbishment, expansion, upgrades, and ongoing maintenance of previously constructed data centers.
    - With 75% of the unions affiliated with the State Building and Construction Trades reporting, as of the start of 2025, there are nearly 9,955 construction workers out of work.
    - Over 1,700 of the workers reported out of work are apprentices. New apprentices cannot be enrolled when there are so many already in the system who cannot finish their training because there are not enough job sites for them. Apprenticeship utilization requirements, project labor agreements, and community workforce agreements ensure these requirements are met.
    - According to IBEW's data, 1,000 electricians in Washington are currently working on data center-related projects (as of July 2025) and 300 apprentices are currently

being trained. In addition to working on new data center construction projects, these electricians also help to maintain and upgrade electrical systems and components of previously constructed data centers.
    - According to IBEW's data, Washington has 2,000 electricians on unemployment who are ready and waiting for work.
    - IBEW Local 191 built an apprenticeship training center in East Wenatchee–the first on the east side of Washington. They are looking at building a second training center in Moses Lake.
    - The demand for skilled labor (electricians and other skilled labor) from data center-related projects and training centers training up new workers explains the current labor numbers for electricians.
    - According to the Washington State Building and Construction Trades Council, the pattern they see is a shift in work from Western Washington to Eastern Washington.

Draft Finding T.13 Washington is falling behind in building out the infrastructure – generation, transmission, and battery energy storage — necessary to achieving the state's clean energy goals.[1]

Draft Finding T.15 <u>Subsea Cables into Washington – Environmental Permitting</u>

- Last cable to land in Washington 1999/2000, landing north of Seattle (Mukilteo region). Oregon has been the preferred Pacific Northwest destination for the last 30 years.
- Key distractor for subsea fiber cables to land in the Seattle region is the crossing of the Olympic Coast National Marine Sanctuary (OCNMS) at the mouth of the Strait of Juan de Fuca.
- In addition to typical regulatory review (via a JARPA) for cable installations, crossing the OCNMS adds extensive regulatory review including the completion of a NEPA review.
- Once a cable is installed, crossing the OCNMS requires ongoing survey costs every 5 years over a 20-year+ cable service period (i.e., the life of a cable).
- Cost for an aquatic use authorization from Washington Department of Natural Resources is based on the land usage, not a flat fee ($300,000) used by Oregon.
- Two cable landing locations are currently being developed on the Washington outer coast that would avoid the OCNMS.
- Outer coast landings would shorten the aquatic land usage to 3 miles or less but require the crossing of the Seashore Conservation Area (SCA) managed by the State Parks – a first of its kind.

Draft Finding T.16 <u>Data Center Industry's Aggregate Impact to Washington's Employment and Taxes in 2023.</u>

- According to a 2025 report from PwC, commissioned by the Data Center Coalition, the data center industry contributed 8,990 direct jobs in Washington in 2023.
- Including direct, indirect, and induced effects, the data center industry's total employment contribution was 47,960 in Washington in 2023.
- According to a 2025 report from PwC, commissioned by the Data Center Coalition, the Washington data center industry directly and indirectly contributed $1.8 billion to state and local tax revenues in 2023. This is based on publicly available data and is net of any tax incentives.

[1] ProPublica Article, March 12 2025

- Additionally, PwC's analysis of the latest government spending data suggests that the data center industry's total state and local tax contribution of $1.9 billion in Washington in 2022 was sufficient to fund all provision and support of parks and recreational facilities and activities, as well as all administration costs of unemployment compensation, public employment offices, and related services in the state.

Energy & Resource Impacts Subgroup Findings Recommended to Full Data Center Workgroup

1. **Washington policies regulate greenhouse gas emissions from the power sector and require a carbon-neutral electricity supply by 2030 and 100% renewable or zero-carbon by 2045. Achievement of Washington's climate and clean energy policy goals will require an abundant, reliable, and affordable clean energy supply.**
    a. Washington's cap-and-invest law sets a declining cap on greenhouse gas emissions that aligns with the state's greenhouse gas emissions limits.[2] The CCA covers emissions from in-state electric power, regardless of power plant ownership, and emissions from electricity imported into Washington.
    b. The CCA recognizes retail electric utilities are required to gradually transition to 100% clean electricity by 2045 and mitigates ratepayer effects of the CCA by providing no-cost allowances to them. No-cost allowances are based on forecasted resources of Washington utilities, including utility forecasts of data center loads.[3]

2. **Overall economywide demand in Washington for new, clean electricity sources is expected to increase for multiple reasons even without large new loads, including replacement of retiring fossil-fired plants and electrification of existing transportation, building, and industrial uses.**

3. **Multiple factors constrain the ability of the power system to increase capacity on pace with demand growth; these factors include land acquisition, siting and permitting timelines, long lead times on critical materials and equipment, extended delays in processing interconnection requests, transmission constraints, and impacts of state and federal policies and regulations.**

4. **The limitations of the Pacific Northwest transmission system are a significant constraint in accessing additional sources of clean electricity.**
    a. These limitations exist at multiple points in the grid, from long-haul capacity to reach resources across the West to local capacity to interconnect large new loads. Reconductoring and grid-enhancing technologies represent a short-term, partial solution to adding capacity to the transmission system.[4]

5. **Because the power system is already constrained, any substantial new uses of electricity, regardless of purpose, challenge the state's efforts to decarbonize its energy system, maintain affordable and reliable service, and protect its environmental and cultural resources.**

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[2] RCW 70A.45.070

[3] Northwest Power and Conservation Council: 9th Power Plan Demand Forecast

[4] Current Power Market Trends and Implications for the Data Center Industry; Large-scale Transmission Deployment Saves Consumers Money

6. **The global electricity requirements of data centers are substantial and growing rapidly in response to businesses and consumers demanding more data services. Data centers are the largest source of expected load growth in the Pacific Northwest. Potential growth in data centers in Washington would require significant electric power grid expansion, including generating resources, substations, and local and regional transmission capacity.**[5]
    a. Regionally, the Northwest Power and Conservation Council has projected that data centers and chip fabrication could add 2,200 average megawatts of electricity load by 2030. The power council's high growth scenario shows these loads increasing to about 4,800 average megawatts by 2030 and 6,500 by 2046.[6]
    b. Data centers may add significantly to peak loads.[7]
    c. The consolidation of data processing in large data centers has improved power use efficiency. New processes within data centers increase the density and total quantity of data center electricity loads.[8]

7. **The addition of large data center loads to the operations of retail utilities presents risks for other retail customers.**
    a. Future energy requirements of data centers are uncertain and difficult to forecast with accuracy.[9]
    b. Potential impacts to other customers arise as new investments and operating costs are recovered through rates. Data center electric consumption may adversely affect costs and reliability problems through wholesale power purchases, especially during peak periods.[10] Stranded assets could result if large customers exit before full recovery of investments made to serve those customers.[11]

8. **There are existing tools available to regulators and governing boards to manage potential impacts on other retail customers; however, working group members disagree over whether these tools are sufficient. The data center industry says it is committed to paying the full cost of service.**

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[5] 2024 United States Data Center Energy Usage Report | Energy Technologies Area; Powering Intelligence: Analyzing Artificial Intelligence and Data Center Energy Consumption; AI's energy impact is still small—but how we handle it is huge; Get A Load of This: Regulatory solutions to enable better forecasting of large loads

[6] Northwest Power and Conservation Council: 9th Power Plan Demand Forecast

[7] The Energy & Water Use Impacts of Building System Design for Data Centers

[8] Load Growth Is Here to Stay, but Are Data Centers? - E3; Current Power Market Trends and Implications for the Data Center Industry; Powering Intelligence: Analyzing Artificial Intelligence and Data Center Energy Consumption

[9] 2024 United States Data Center Energy Usage Report | Energy Technologies Area; Load Growth Is Here to Stay, but Are Data Centers? - E3; Uncertainty and Upward Bias Are Inherent in Data Center Electricity Demand Projections; Get A Load of This: Regulatory Solutions to Enable Better Forecasting of Large Loads

[10] Byte Blackouts: How large data center loads are surfacing new issues; Big Tech's data center boom poses new risk to US grid operators | Reuters; Rethinking Load Growth: Assessing the Potential for Integration of Large Flexible Loads in US Power Systems; Extracting Profits from the Public: How Utility Ratepayers Are Paying for Big Tech's Power;

[11] Extracting Profits from the Public: How Utility Ratepayers Are Paying for Big Tech's Power; Virginia Data Center Study: Electric Infrastructure and Customer Rate Impacts; The Energy Demands of the Data-Driven Future: Challenges and Solutions

a. Examples of additional statutory and regulatory measures include limiting the obligation to serve, creating separate customer classes for data centers or large loads, data center or large load specific cost of service and rate design measures, such as application and service extension charges, contract term requirements, commercial credit commitments, resource planning requirements, and operating standards.[12]
b. Other state legislatures and regulators have proposed and adopted the additional statutory measures noted above to mitigate potential rate impacts of data centers for other retail customers.[13]

9. **Effective load forecasting is a foundational requirement for ensuring long-term grid reliability, resource adequacy, cost-effective transmission development. Additionally, utilities must be able to evaluate load requests for the purposes of identifying potentially speculative load requests. When forecasts are too high, they can lead to inflated capacity prices, trigger unnecessary transmission buildouts, and result in stranded or underutilized assets. When forecasts are too low, the consequences are even more severe: insufficient capacity procurement, underinvestment in transmission, and a persistent cycle of short-term emergency responses rather than long-term strategic planning.**

10. **To support accurate load forecasting, utilities must also be able to verify large load interconnection requests. At the same time, utilities must provide transparency on forecasting inputs and assumptions. Finally, potential large load developers require information from utilities about powering timelines without having to submit an interconnection request.**

11. **Opportunities exist to manage the power resource requirements of data centers, but workgroup members disagree about the viability of some of these opportunities and how to implement them.**

12. **Washington state tax incentives for data centers require data centers meet certain green building standards. These standards do not address the efficiency measures to cool the processors and are not sufficient to ensure that data centers achieve any specific level of energy efficiency or clean energy sourcing.**

13. **Data center operators and renewable energy project developers have collectively and globally procured and constructed many times more clean energy resources than the state's utilities.**
    a. The experience and expertise of these large corporate entities represent a potential resource for the state's utilities as they expand and decarbonize the grid. Large corporations that operate or principally use data centers may also have additional

[12] Load Growth – What States Are Doing to Accommodate Increasing Electric Demand; Database of Emerging Large-Load Tariffs; Get A Load of This: Regulatory solutions to enable better forecasting of large loads; Extracting Profits from the Public: How Utility Ratepayers Are Paying for Big Tech's Power; National Caucus of Environmental Legislators: Data Centers Brief

[13] Load Growth: What States Are Doing to Accommodate Increasing Electric Demand; Database of Emerging Large-Load Tariffs (DELTa)

capital to invest in improving the grid (e.g., investing in grid-enhancing technologies).[14]

b. Because of their broader resource portfolios, large tech companies may have more capacity to invest in emerging clean energy technologies than regulated or consumer-owned utilities.[15]

c. Some data center developers and operators do not wish to manage electricity supplies, see benefits from being customers of electric utilities, and expect to pay the full and fair share of power system costs that result from their service.

14. **Generation and storage behind the meter, such as solar + storage and enhanced geothermal, could support data center energy demands that cannot be readily met with existing transmission capacity.**

    a. Addition of behind-the-meter or collocated generation and storage resources may require Federal Energy Regulatory Commission oversight, compliance with specific behind-the-meter interconnection requirements or navigating potential land or zoning restrictions. Land and zoning restrictions may prohibit generation and storage behind the meter.

15. **Gas-fired power generation is another potential interim source for meeting data center loads.**

    a. While not prohibited within the limits of CETA, any use of gas-fired generation must consider issues such as local pollution impacts, regulatory limits on power plant greenhouse gas emissions, allowance costs, long-term rate impacts to customers if expected data center loads fail to materialize, and the availability of pipeline capacity during winter peaks.16

    b. Greenhouse gas emissions from any substantial use of methane gas-fired generation would be covered under the Climate Commitment Act. Increases in emissions may affect the availability and price of allowances for other covered entities whose activities result in GHG pollution.

    c. Workgroup members disagree on the commercial viability of carbon capture and sequestration solutions for natural gas facilities in the near-term.

16. **Advanced nuclear technologies, such as small modular reactors, represent a potential source of clean, firm power, but members of the working group disagree on whether the technology is commercially viable in the near-term and whether advanced nuclear technologies can meet the forecasted power needs of data centers statewide. Permitting and siting challenges may further reduce and delay the development of this technology.**[17]

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[14] Breaking Barriers to Data Center Growth; Clean Energy Resources to Meet Data Center Electricity Demand; A Climate Hawk's Guide to Northwest Data Centers

[15] Breaking Barriers to Data Center Growth; Clean Energy Resources to Meet Data Center Electricity Demand; A Climate Hawk's Guide to Northwest Data Centers

[16] We did the math on AI's energy footprint. Here's the story you haven't heard. | MIT Technology Review; The Unpaid Toll: Quantifying the Public Health Impact of AI

[17] "In October 2024, Amazon signed a deal with Energy Northwest, a utility in Washington state, that will see Amazon fund the initial phase of a planned X-energy small modular reactor project in the state. The tech giant

17. **Cooling systems and the use of fossil fuels to power data centers can affect air resources. Combustion generators release particulate matter pollutants and greenhouse gases. Cooling systems can release hydrofluorocarbons and other fluorinated gases. Water cooling systems can have other air emissions, such as anti-microbial emissions.**

18. **Data centers may have potential direct and indirect impacts to tribal communities and treaty-protected resources, and the broader natural and built environment.**
    a. When multiple data centers are developed in the same geographic area, there can be cumulative impacts to resources such as air, water, transportation, and cultural resources.
    b. Developers can avoid and minimize environmental and other community impacts through coordinated planning and early engagement with state agencies, Tribes, and local communities when designing projects and choosing project sites.

19. **The direct water requirements of data centers can be substantial, depending on the size and type of cooling system used. This can affect water resources, such as water availability, and water quality through discharges of pollutants and effects on water temperatures. There could be potential impacts to public infrastructure, such as municipal water facilities, habitats, species, critical areas, and to Tribal rights, interests, and resources.**
    a. Impacts to water resources vary depending on a site's water availability, technology choices regarding cooling systems and water reuse systems, and other factors.
    b. Data centers that discharge water with pollutants or that include operations involving changes or discharges that affect waters can have potential impacts to waterbodies, habitats, and species and would require water quality discharge permits. Discharges to the Columbia River would have restrictions on temperature to ensure protection of salmon and habitat.
    c. There are also potential indirect impacts on water resources because of data center operations. To the extent data centers rely on hydropower for electricity supply, the additional electricity load of these facilities increases demand for this scarce resource, particularly during critical periods for the power system, and is likely contrary to the efforts of Tribes, the state, and others to achieve healthy and abundant fisheries.

20. **General permits and general orders can reduce project timelines and ensure state regulatory requirements are met. These measures allow a proposed project to use pre-evaluated conditions and criteria and take less time than an individual permit.**
    a. Ecology has existing general permits for water discharges and is developing a general order for data center emergency engine operations.[18]

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will have a right to buy electricity from one of the modules in the first project, which could generate 320 megawatts of electricity and be expanded to generate as much as 960 megawatts. Many new AI-focused data centers under construction will require 500 megawatts of power or more, so this project might be just large enough to power a single site." Can Nuclear Power Really Fuel the Rise of AI?

[18] Diesel pollution from data centers