# Data Center Workgroup: Preliminary Report

December 1, 2025

***Pursuant to Executive Order 25-05***

# Data Center Workgroup: Preliminary Report

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# Introduction

## From the Governor's Office

This preliminary report reflects the outcomes of Governor Ferguson's Data Center Workgroup. The Governor's Office has directed the Department of Revenue to engage in consultation with the Tribes on the impacts of data centers. The final report will be published once consultation is complete.

We want to begin by thanking workgroup members and the public for their dedication of time, resources, and expertise to this process. The expansion of data centers in our state presents both significant opportunities and real challenges. We face an unprecedented amount of electricity load growth due to clean vehicle adoption, building decarbonization, population growth, and the retirement of fossil fuels. This challenge is compounded by data center growth. The workgroup took place amidst a surging public dialogue nationwide of how to limit, manage, or encourage technological development. Our state must consider how we move forward in a way that, at its core, improves the lives of Washingtonians.

This preliminary report is the culmination of six months of meetings and discussion, paired with over 1,000 public comments. Workgroup members spent countless hours throughout the year studying, debating, and refining these issues. While there were robust discussions and disagreements about the best path forward, the workgroup ultimately advanced a substantial set of recommendations by majority vote. Many workgroup members provided minority reports for findings or recommendations they had concerns or additional input on. The recommendations aim to ensure that data center growth aligns with Washington's climate laws, protects ratepayers, supports responsible energy growth, and safeguards natural and cultural resources.

Thank you for your interest in this important work. We hope you find this preliminary report useful, and we will send out the final report once the Tribal consultation process concludes.

Sincerely,

Beau Perschbacher
Senior Policy Advisor to the Governor
Economic Development & General Government

Kate Brouns
Policy Advisor to the Governor
Climate & Energy

## Executive Summary

On February 3, 2025, Washington Governor Bob Ferguson issued Executive Order 25-05 which commissioned the creation of a Data Center Workgroup (Workgroup) to create a series of findings and policy recommendations as it relates to certain impacts of data centers and deliver them to the Governor no later than December 1, 2025. After the Governor's Office designated 33 Workgroup members, the Workgroup held its first meeting on May 9, 2025.

The Workgroup found that data center development in Washington is driven primarily by access to clean, reliable, and affordable energy; favorable tax incentives; efficient permitting; competitive ownership costs; and speed to market. These facilities have produced substantial economic and fiscal benefits—most notably in Eastern Washington communities like Quincy and East Wenatchee—by dramatically increasing local property values, lowering levy rates, funding public infrastructure, and creating jobs.

Washington offers limited sales and use tax exemptions for data centers, but no property tax incentives, unlike many other states that use robust, long-standing data center incentives to attract investment. Nationally, 37 states now provide some form of data center tax benefit, with Virginia and Georgia demonstrating particularly high returns on such incentives. The industry contributes significantly to Washington's economy, yet it faces challenges from rising energy demand, transmission and permitting constraints, and uncertainty around power availability and federal trade policies. While Washington currently has sufficient skilled labor available for data center construction, the state is falling behind in expanding the clean energy infrastructure needed to meet both growing electricity demands and its 100% clean energy goals.

The Workgroup also found that data centers may pose potential environmental and community impacts, particularly regarding energy use and related dam operations, water consumption, and localized ecological effects—which may also affect Tribal rights, interests, and resources. This underscores the need for coordinated planning, regulatory efficiency, early engagement with affected Tribes, and sustainable growth strategies.

The Workgroup's recommendations focus on ensuring Washington balances data center growth with climate, community, and energy system goals. They call for upholding the state's clean energy laws, protecting ratepayers by ensuring data centers cover their full energy system costs, and promoting energy efficiency and load flexibility through incentives and sustainability reporting. While protecting

community, Tribal, and environmental resources, the state should improve forecasting and transparency for new large energy loads and create a dedicated state entity to support the expansion of transmission capacity.

Washington should also streamline permitting for clean energy projects and accelerate deployment of emerging clean energy technologies—such as geothermal, long-duration storage, and nuclear—while enabling data centers to access or invest directly in firm, clean power. The Workgroup also recommends the Governor direct agencies to engage early with potentially affected Tribes about impacts to Tribal rights and resources and the potential for mitigation.

This report contains both the minority views and concurring opinions of Workgroup Members to both the findings and recommendations. It also contains some discussion of a proposed recommendation on data center tax preferences that failed to pass. The Yakama Nation is a Sovereign Government that agreed to participate as a member of the Workgroup. Given the unique government-to-government relationship between the State of Washington and the Yakama Nation, they were invited to provide their own perspective separately. We have included their report in Appendix D.

## About the Workgroup

On February 3, 2025, Governor Bob Ferguson issued Executive Order 25-05 (see Appendix E) commissioning the creation of a Data Center Workgroup (Workgroup).

The Workgroup was directed to discuss certain impacts of data centers and generate findings on our state's economy, tax revenue, energy use, tribal resources, and the environment. It is further directed to consider possible policy recommendations that ". . . balance industry growth, tax revenue needs, energy constraints, and sustainability."

To fulfill the Workgroup's directive, two subgroups were commissioned: Tax Revenue & Economic Development and Energy & Resource Impacts subgroups. Workgroup members self-selected to serve on either or both. Of the Workgroup's 33 members, 18 self-selected to serve on both subgroups.

The subgroups were structured to create draft findings and recommendations for the full Workgroup's consideration, and the subgroups' draft recommendations were released directly for public comment.

Over the course of approximately 5 months, the Workgroup and its subgroups:

- Discussed the impacts of data centers as required in the Executive Order,
- Brainstormed possible policy recommendations,
- Sought and considered public feedback, and
- Adopted 31 findings and made 8 recommendations for consideration.

The Workgroup's individual members provided substantive contributions. For example, for the 18 who served on both subgroups, they invested approximately 40 hours in 23 meetings over the course of 5 months in meetings alone. Many were also asked to present on technical and complex topics.

## Workgroup Members

Executive Order 25-05 directs the Department of Revenue to lead the Workgroup with representatives designated by the Governor's Office from the following:

- Department of Commerce,
- Utilities and Transportation Commission,
- Department of Ecology,
- Electric utilities,
- Environmental advocacy groups,
- Labor organizations,
- Industry stakeholders, and
- Others as designated by the Governor's Office

The following representatives served on the Workgroup:

*State Government*

- Kate Brouns, Climate & Energy Policy Advisor, Office of the Governor
- Beau Perschbacher, Economic Development & General Government Senior Policy Advisor, Office of the Governor
- David Duvall, Senior Tax Policy Coordinator, Department of Revenue (Data Center Workgroup Chair & Tax Revenue & Economic Development Subgroup Chair)
- Glenn Blackmon, Energy Policy Director, Department of Commerce (Energy & Resource Impacts Subgroup Chair)
- Andreas Bohman, Vice President for Information Technology and Chief Information Officer, University of Washington

- Diane Butorac, Clean Energy Coordination Section Manager, Department of Ecology
- Bill Kehoe, Director & Washington State Chief Information Officer, Washington Technology Solutions
- Brian Rybarik, Chair, Utilities and Transportation Commission
- Keith Swenson, Deputy Assistant Director, Office of Economic Development & Competitiveness, Department of Commerce[1]

*Legislators (Non-voting members)*

- Representative April Berg, 44th Legislative District
- Senator Matt Boehnke, 8th Legislative District
- Senator Sharon Shewmake, 42nd Legislative District
- Representative Alex Ybarra, 13th Legislative District

*Other Workgroup Members*

- Justin Allegro, Policy Director, The Nature Conservancy
- Zach Baker, Regional and State Policy Director, NW Energy Coalition
- Ryan Beebout, Vice President, Sabey Data Centers – West
- Cassie Bordelon, Executive Director, Climate Jobs Washington
- Dan Diorio, Senior Director, State Policy, Data Center Coalition
- Mendy Droke, Director, State and Regional Affairs, Pacific Northwest National Laboratory
- Matt Hepner, IBEW Executive Director of the Certified Electrical Workers of Washington, City of East Wenatchee Councilmember
- Latisha Hill, Vice President of Community Affairs & Chief Customer Officer, Avista Corporation
- Kirk Hudson, General Manager, Chelan County PUD
- Josh Jacobs, Clean Energy Strategy & Planning Vice President, Puget Sound Energy
- Heather Kurtenbach, Executive Secretary, Washington State Building and Construction Trades Council
- Casey MacLean, Washington Policy Manager, Renewable Northwest
- Michael Mattmiller, Senior Director of Government Affairs, Microsoft[2]
- Brant Mayo, Executive Director, Grant County Economic Development Council
- Megan Schrader, Director of State and Local Public Policy, Amazon Web Services
- Edward Sheets, Senior Advisor & Consultant on Regional Energy (Alternate for Yakama Nation)
- Cameron Steinback, Climate Justice Program Manager, Front and Centered
- Kate Valdez, Environmental Coordinator, Yakama Nation Fisheries

- Andy Wendell, Senior Power Manager of Large Power Solutions, Grant County PUD
- Seth Worley, Director of Government Affairs, UA Local 598

# Findings

The findings that appear below were all adopted by the full Workgroup. They are divided into two sections: Those that originated from the Energy & Resource Impacts Subgroup, and those that originated from the Tax Revenue & Economic Development Subgroup.

## Energy & Resource Impacts Subgroup Findings Adopted by 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.[3] 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.[4]

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.[5]

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.**

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.[6]**
    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.[7]
    b. Data centers may add significantly to peak loads.[8]
    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.[9]

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.[10]
    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.[11] Stranded assets could result if large customers exit before full recovery of investments made to serve those customers.[12]

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.**

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.[13]
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.[14]

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 capital to invest in improving the grid (e.g., investing in grid-enhancing technologies).[15]
    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.[16]
    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.

***[Please Note: Finding 15 was not adopted by the Workgroup.]***

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]

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]

## Tax Revenue & Economic Development Subgroup Findings Adopted by Workgroup*

Please note: There are gaps in the numbering of the findings below because some of the findings considered by the Tax Revenue & Economic Development Subgroup were not forwarded to the full Workgroup for consideration. This is true for all of the findings that do not appear below except T.7 and T.15. They were tabled by the Workgroup and were not considered further.

**T.1 Key Factors in Siting Data Centers Generally**

- The following were identified as key factors in a developer's decision to site a data center. Industry emphasized that not all factors have the same weight in decision-making:
  - Access to fiber/interconnection.
  - Access to water for industrial purposes.
  - Access to clean, reliable, and ample energy.
  - Climate and risk of natural disaster.
  - Land availability.
  - Tax incentives.
  - Regulatory climate (including permitting and permitting timelines).
  - Other cost considerations:
    - Ownership/occupancy costs
    - Land
    - Construction
    - Ongoing operations
    - Electricity
  - Time to market.
  - Access to skilled construction and technology workforce.
  - Tax and regulatory certainty.
  - Cooler climate (naturally reduces load); and
  - General risk management (e.g., civil unrest, cybersecurity).

**T.2 Key Factors Receiving the Greatest Weight in Siting Data Centers in Washington**

- From the factors listed above in Finding 1, the following were identified as key factors bearing the greatest weight in a developer's decision to site a data center in Washington:

* Please note that some of this Subgroup's draft findings were amended before the Full Workgroup.

- Access to clean, reliable, and affordable energy (Industry noted that without electricity, none of the other factors matter).
- Tax incentives.
- Regulatory climate (including permitting and permitting timelines);
- Time to market.
- Ownership/occupancy costs.

**T.3 Tax & Economic Development Benefits from Data Centers in Certain Local Washington Communities**

- Data Centers have and are making a positive tax and economic impact on certain Washington Communities.
  - For the purposes of state and local property taxes, the additional assessed value of data centers on the town of Quincy (approximately 8,500 people) enabled the city to reinvest and upgrade services while its citizens pay less in property taxes.
    - In 2006 *before* data centers located to Grant County, the assessed value of the top 10 taxpayers in Grant County was $312,977,310 which represented $4,246,801 in tax paid.
    - In 2025 *after* data centers located to Grant County, the assessed value of the top 10 taxpayers in Grant County was $6,136,727,665 (a 1961% increase over 2006) which represented $54,267,353 in tax paid (an increase of 1277% over 2006). 7 of the 10 highest assessed values and taxes paid are from data centers, and 6 of the 7 are located in Quincy. (The seventh is located in Moses Lake.)
    - The data center's additional assessed value has driven down the City of Quincy's levy rate over time. The current rate is approximately 70% less than it was in 2006 before data centers located to Quincy. As a result, Quincy's other taxpayers are generally paying significantly less in property taxes.
      - 2006 (before data centers): $3.12 per thousand
      - 2016: $1.97108 per thousand
      - 2025: $0.87788 per thousand
    - As a result of lower levy rates, the City of Quincy has been able to replace, upgrade, and/or newly construct important buildings and infrastructure in the city. In some cases, voter approval was secured to finance some of these projects such as a bond to build a new high school:
      - New reuse water system
      - New wastewater treatment plant
      - All wastewater systems replaced (e.g., piping, etc.)

        - While the City had sidewalks on approximately 5% of its streets, approximately 80% of the city's streets now have sidewalks. 95% of streets are now paved.
        - New schools (including a new High School).
        - New Quincy Valley Medical Center (hospital).
        - Quincy Public Market
        - New City Hall
        - New Fire Station (which resulted in lower fire insurance rates for businesses and individuals and the ability to lend assistance to the surrounding area outside of Quincy).
        - New City of Quincy Public Safety and Policy Department.
    - In the near future, Quincy will construct a Q Plex, a new indoor soccer facility, with four soccer fields and other amenities. Quincy anticipates this would bring hotels to the area and help with tourism.
    - Similar property tax benefits have also been found in at least one other data center cluster found in other Eastern Washington communities.
        - East Wenatchee has a cluster of data centers.
        - An analysis of one parcel in East Wenatchee (Douglas County) indicates that the additional value data centers there add to the tax rolls is having the effect of driving down property tax levy rates:
            - 2023: $9.82 per thousand
            - 2024: $8.41 per thousand
            - 2025: $7.82 per thousand
        - Two new data center campuses are in different stages of construction in East Wenatchee (Douglas County) and in Malaga (Chelan County). It is expected that this continued economic development will continue driving property tax levy rates significantly lower in these communities.
    - In Quincy alone data centers have created approximately 900 jobs *directly*:
    - In Washington, different organizations use different measures to describe the indirect impacts of data centers on jobs. The Tax Revenue & Economic Subgroup saw presentations where estimates ranged from 1 direct data center job helps create approximately 4 indirect jobs to 1 direct data center job helps create approximately 6 indirect and induced jobs.
- Centeris Data Center located in Puyallup is an urban, co-location multi-tenant data center has also made large investments in its data center which has benefitted the Puyallup area.
    - The Centeris data center was originally built to be a semiconductor manufacturing facility which was never occupied. The Benaroya Company purchased it in 2009 and converted it in 2010. As a result, the building received LEED Gold certification.

- Centeris credits the non-rural data center tax incentive passed in the 2022 Legislative Session (ESHB 1846) as the reason:
  - Its property went from vacant to 100% occupied.
  - 130 union electricians were hired to be on-site throughout the 21-month project contributing approximately 275,000 hours.
  - Members of other union trades were hired to provide an additional 121,000 labor man hours to work on mechanical systems, carpentry, fire suppression, etc.
- Centeris' owner, The Benaroya Company, invested $200 million into the facility since 2024, and its tenants have contributed millions into the local economy. Centeris has employees, contractors and vendors providing both direct and indirect positive economic impacts.
  - Centeris currently employs 21 full-time data center employees. All new employees receive compensation at least 125% above the per capita income of Pierce County, and Centeris contracts with third party vendors who use 50-100 employees to maintain its equipment.
  - Currently, Centeris employs 45 union personnel to keep its data center operating. In addition, Centeris employs other union personnel to provide additional support which averages about 20 employees per month.
  - Approximately 60% of Centeris' employees are military veterans.
  - Each of Centeris' tenants staff 5-10 full-time employees and the tenants engage the services of third parties to service the tenants' equipment.
- Centeris uses air for cooling and only uses water when the temperature exceeds a certain level. Even then, the water used is recycled and reused for cooling later. Centeris considers the level of water consumption *at this facility* as relatively low.
- Centeris has been recognized by several Pierce County-area organizations for improving the economic well-being of Pierce County and Washington State.

**T.5 Data centers pay state and local taxes – Washington offers limited sales & use Tax Exemptions.**

- Under current law, there are two sets of data center sales and use tax exemptions on *eligible server equipment* and *eligible power infrastructure* in a qualifying data center:
  1. For Rural Data Centers: RCW 82.08.986 and RCW 82.12.986, and
  2. For Non-Rural Data Centers: RCW 82.08.9861 and RCW 82.12.9861.
- Both exemptions are limited:
  - Eligible server equipment includes things like the original server equipment installed in a data center, replacements of those servers, etc.

- Eligible power infrastructure is limited to fixtures and equipment necessary for the management of electricity such as generators, wiring, cogeneration equipment, and other similar equipment.
- Charges for labor to install both eligible server equipment and eligible power infrastructure are also exempt under these incentives.
- All other labor, services, and materials are subject to state and local sales tax. For example, the shell of a building and a data center's HVAC system are generally subject to state and local sales tax.

- Data centers are subject to state and local property taxes. There is no current property tax-related tax incentive for data centers in Washington State. Other states however offer state and/or local property tax incentives (e.g., Oregon, Ohio, Georgia, Indiana, etc.).

**T.6 Data Center Tax Incentives Not Available in All Counties**

- Under current law, data centers constructed in the following counties and any tenants of those data centers are excluded from the data center sales and use tax incentives in RCW 82.08.986, RCW 82.12.986, RCW 82.08.9861 and RCW 82.12.9861:
  - Thurston
  - Kitsap
  - Whatcom
  - Clark
  - Benton
  - Spokane

**T.8 Data Center Tax Landscape Across the United States**

- 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.

**T.9 Biggest Risks Data Centers Face**

- 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.

**T.12 No Labor Shortage in Washington to Meet Data Center Needs. Future Labor Profile Depends on Demand.**

- 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.

**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.19**

**T.14 Annual Survey Data from Data Centers and Data Center Tenants Indicates Tax Savings to Data Centers and Tenants**

- According to Department of Revenue's Annual Tax Preference Performance Report data, data centers and data center tenants reported taxpayer savings of approximately $584 million over the last decade (2012-2023). In 2023, the most recent data available, tax exemptions totaled over $118 million.

**T.16 Data Center Industry's Aggregate Impact to Washington's Employment and Taxes in 2023.**

- 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.
- 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.

# Recommendations

Workgroup members brainstormed ideas for possible recommendations in their individual subgroups. Each subgroup considered the ideas and voted to forward its slate of draft recommendations for public comment. After having received more than 1,000 comments, the Department shared the public comments with all members of the Workgroup for their consideration. Then certain draft recommendations and topics were selected and workshopped in several joint subgroup meetings. Based on those discussions and public comments, the Governor's Office compiled a list of draft recommendations for consideration by the full Workgroup. Please note: The Department of Revenue did not submit any recommendations as the Department typically defers to the Governor and Legislature on policy decisions.

The following recommendations were adopted by a majority vote of Workgroup members present:

1. **Maintain the integrity of Washington's climate laws.**
   - Ensure Washington's Climate Commitment Act and Clean Energy Transformation Act operate as envisioned to cover any fossil or unspecified power sources used by large data centers.

2. **Strengthen ratepayer protections.**
   - Require the UTC and consumer-owned utilities develop model tariffs or model contracts for a new rate class that: (1) identify a MW threshold for the tariff serving new large loads; (2) specify the characteristics of these new loads; (3) require new large loads pay for the direct interconnection costs caused by their interconnection; (4) require new large loads cover any costs of generation, transmission or distribution systems required to serve new large loads and avoid shifts of costs or risks to other customer classes, including potential stranded assets.

3. **Incentivize load flexibility and best practices for energy efficiency.**
   - Direct agencies to identify, incentivize, and unlock the potential for load flexibility, particularly from large data centers. Incentives could include specific tax incentives or faster interconnections for large loads that are able to participate in demand response programs or those that help fund demand response and energy efficiency for low-income households and other customers.
   - Require data centers to publish a sustainability report prior to construction that demonstrates how the data center balances energy, water, and computing performance. Require the report to be updated when replacing equipment.

- Fund the Energy Policy Office to conduct a study on the potential to meet data center loads with on-site energy generation or storage, demand response programs, or load management programs, and include recommendations on any program or policy changes that may be needed to achieve the potential.

4. **Protect community, Tribal, and environmental resources.**
   - Direct and fund the Department of Ecology to conduct a study and develop best practices for siting and operating data centers with input from permitting agencies, industry, Tribes, interested parties, local government, and utilities. The study will address:
     - Water resources, including water availability, water quality impacts, direct and cumulative impacts on the local water system, and potential for discharges that cause a municipal water system to exceed its capacity resulting in untreated water entering streams or rivers;
     - Impacts to Tribal rights and resources; and
     - Air resources, including greenhouse gas emissions and direct and cumulative air emissions.
   - Replace the data center sustainability provisions in existing law [such as RCW 82.08.986(4)] with a standard that more specifically encourages energy and water efficiency at newly constructed data centers.
   - Require data centers to report water use annually to the state. The report should include daily quantities (total and peak uses) and any effluents that are discharged outside the data center.
   - Encourage the Northwest Power and Conservation Council (NPCC) to incorporate the anadromous fish managers' recommendations on the spill and reservoir operations at the dams into the Columbia Basin Fish and Wildlife Program. The NPPC would then incorporate those operations into the development of the next Pacific Northwest Conservation and Electric Power Plan.

***[Please Note: Recommendation 5 was not adopted by the Workgroup.]***

6. **Improve resource forecasting.**
   - Direct the UTC and the Department of Commerce to create reporting standardization for new large loads across regulated and public utilities, which could include data quality, documentation, and information about associated transmission needs.
   - Establish standardized commercial readiness criteria across utilities for large load additions to enter the interconnection queue.

- Require large load applicants to disclose duplicative interconnection requests across balancing authorities.

7. **Enhance transmission capacity.**
   - Create a state entity to support the development of transmission projects, which could include permitting, land acquisition, finance and even construction.
   - Direct agencies to prioritize upgrades to existing transmission lines with grid enhancing technologies.

8. **Accelerate siting and permitting of transmission and clean energy generation.**
   - Direct agencies and local governments to accelerate processes for development of transmission and clean energy generation, in line with the recommendations of Washington's Interagency Clean Energy Siting Council and the work being undertaken via Executive Order 25-03.
   - Direct state and local agencies to engage early with potentially affected Tribes about impacts to Tribal rights and resources and potential for mitigation.

9. **Accelerate the deployment of existing and emerging technologies, such as geothermal energy, green fuels, long-duration batteries, and nuclear energy to provide data centers with firm energy.**
   - Create a direct access program for new large loads in Washington to allow customers to source their own power.
   - Design green tariffs for large data center companies to invest in innovative higher-cost clean energy resources, such as long-duration battery storage.

# Appendix A: Minority & Concurrence Reports

November 7, 2025

David Duvall
Chair, Data Center Work Group
Senior Tax Policy Coordinator | Executive Division
Washington State Department of Revenue

Dear Chair Duvall:

The Data Center Coalition (DCC), as a member of the Data Center Work Group, appreciates the opportunity to offer this minority report. We would like to thank Governor Bob Ferguson, his staff, and agency staff for their hard work in organizing the work group and conducting a balanced and open conversation on a wide range of issues. We respectfully offer the following comments related to both findings and recommendations.

**Energy & Resource Impacts Subgroup Finding #7: The addition of large data center loads to the operations of retail utilities presents risks for other retail customers.**

DCC disputes the assertion that the addition of large data center loads presents risk to other utility customers. Utilities throughout the country have offered public statements that data center-driven load growth will generate significant new revenues for electric utilities, and those revenues can create downward pressure on the rates that all customers pay. PPL noted as such in its April testimony in the Pennsylvania Public Utility Commission (PUC) *En Banc* hearing.[1] Earlier this year, PG&E, a major investor-owned utility in California, estimated that the 10 GW of new data center load growth could benefit all ratepayers by spreading fixed grid costs across higher total energy consumption —potentially reducing average electricity costs by more than ten percent.[2] And, in recent videos, Georgia Power confirmed that data centers will not impact electric bills for Georgia residents and that the addition of data centers and large load customers enabled the utility to

[1] PPL Electric Utilities Corporation, "Testimony of Joseph B. Lookup, Vice President-Transmission & Distribution Planning and Asset Management," En Banc Hearing on Interconnection and Tariffs for Large Load Customers Docket No. M-2025-3054271, available at https://www.puc.pa.gov/pcdocs/1875751.pdf.

[2] Pacific Gas & Electric, "PG&E Data Center Demand Pipeline Swells to 10 Gigawatts with Potential to Unlock Billions in Benefits for California," Press Release, July 31, 2025 *available at* https://investor.pgecorp.com/news-events/press-releases/press-release-details/2025/PGE-Data-Center-Demand-Pipeline-Swells-to-10-Gigawatts-with-Potential-to-Unlock-Billions-in-Benefits-for-California/default.aspx?utm.

freeze customer rates for a three year period. New rules established by the Georgia Public Service Commission help ensure that data centers pay for the infrastructure to support their operations.[3]

Furthermore, a recent study from Lawrence Berkeley National Laboratory and the Brattle Group found that between 2019 and 2024, states with significant load growth saw average prices decline. The biggest factors behind rising prices were the costs of poles, wires, and other electrical equipment—as well as the cost of safeguarding that infrastructure against future natural disasters.[4]

Lastly, the data center industry is fully committed to paying its full cost of service for the electricity it uses. Traditional rate-making principles of cost causation and avoiding cross subsidization, as well as effective forecasting principles, can and should address concerns. While we recognize that management of the grid is ultimately the responsibility and duty of utilities, regulators and grid operators, the data center industry is committed to being an active and engaged stakeholder.

**Energy & Resource Impacts Subgroup Finding #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.**

Sub-bullet (a) lists "limiting the obligation to serve" as an example of a measure available to manage potential impacts of data centers on other retail customers. DCC vehemently disagrees that this is a measure that should be considered. The obligation to serve is a fundamental principle that underpins the entire regulatory system for delivering electricity. Utilities are afforded an effective monopoly in exchange for delivering electricity services pursuant to requests inside utility services territories. Allowing utilities to deny service would create significant disparities and inequities within the Washington electricity grid and risks creating a dangerous precedent allowing utilities to deny service based on end use.

Importantly, data centers are aligned with the state's clean energy goals. Limiting the obligation to serve could also have the unintended effect of chilling overall data center investments/growth, which includes investments in clean energy resources and new technologies that both the state and data centers need to meet their respective clean energy goals.

**Recommendation #3: Incentivize load flexibility and best practices for energy efficiency.**

DCC would like to provide clarification and important information regarding data centers participating in demand response programs. Data centers provide essential services, supporting healthcare, banking, finance, and national security among other sectors. Data centers have contractual obligations to maintain 99.999% uptime. As such, data centers **cannot turn off**. Instead, the industry will utilize backup generators to maintain services if participating in demand

[3] Georgia Power, "Your Base Rate is Staying the Same until 2028" *available at* https://www.georgiapower.com/rate-freeze.html (last accessed Oct. 20, 2025).

[4] Lawrence Berkeley National Laboratory and the Brattle Group, "Factors Influencing Recent Trends in Retail Electricity Prices in the United States," October 2025, available at https://eta-publications.lbl.gov/sites/default/files/2025-10/full_summary_retail_price_trends_drivers.pdf.

response programs. This presents compliance challenges under existing air permits required under federal and state laws. In addition, zero emitting backup generating technology today does not have the operational capabilities to meet the 99.999% uptime requirements at data center scale.

Additionally, while we generally oppose a disparate requirement singling out one specific industry to publish a sustainability report, data center operations also are misunderstood in this recommendation. Specifically, data centers replace servers and computer equipment every three to five years on a rolling basis, which is highly dependent on supply chain lead times. Thus, there could be a scenario in which a data center would have to update a report multiple times a year, or even monthly or weekly. This presents a significant compliance burden and was likely not the intention of this recommendation.

**Recommendation #4: Protect community, Tribal, and environmental resources.**

Data centers reporting water use, including on such a granular basis, imposes a disparate legal requirement on one specific water user in Washington that offers no value to understanding overall water use in the state. Data centers are among the most efficient water users throughout the economy. In Virginia, the largest data center market globally, the Joint Legislative Audit and Review Commission found that 83% of data centers in the state use as much, if not less, water than a large commercial office building, and that data center water use across the state is sustainable.[5]

Without broad-based reporting across industries, Washington risks giving other water users less accountability and establishes a construct where data center water use cannot be compared to alternative commercial and industrial water uses, thus providing no probative value for policymakers or the public. Furthermore, data centers work closely with local water authorities on resource availability, routinely invest in water infrastructure in communities, and are deploying water efficient cooling systems. State leaders should not impose broad-based legal requirements based on anecdotal circumstances. The state should seek to establish a baseline, through independent evaluation, to make informed decisions regarding water use.

**Recommendation #6: Improve resource forecasting.**

Sub-bullet three recommends disclosing interconnection requests across balancing authorities in Washington. This specific recommendation is not needed if proper forecasting principles are adopted in accordance with other sub-bullets in this recommendation. In addition, it would expose data centers to competitive and proprietary risk, offer no confidentiality protection, and risk skewing forecasts with insufficient information. It is unclear how utilities would factor this information into evaluating load requests and whether it would actually improve forecasts relative to other recommended measures.

Much of the work group conversation on this item focused on Senate Bill 6 (SB6) in Texas as the model. Specifically, SB 6 states:

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[5] Joint Legislative Audit and Review Commission (JLARC), "Data Centers in Virginia," page v and 45, December 2025, *available at* https://jlarc.virginia.gov/pdfs/reports/Rpt598-2.pdf.

> The standards must require each large load customer subject to Subsection (c) to disclose to the interconnecting electric utility or municipally owned utility whether the customer is pursuing a substantially similar request for electric service in this state the approval of which would result in the customer materially changing, delaying, or withdrawing the interconnection request.

This language provides specific detail and criteria for disclosing the request, which is critically important and which the sub-bullet does not detail.

SB 6 is currently being implemented with a significant rulemaking process. If SB 6 serves as the basis for this recommendation, then it should not be included until the rulemaking is completed and has time to be effective, so Washington can then evaluate its impact and effectiveness.

**The data center industry will continue to be an engaged stakeholder in Washington**

DCC believes that with thoughtful policy development and continued collaboration, Washington can maintain its position as a leader in the digital economy while ensuring responsible growth. The data center industry stands ready to work with state leadership to implement balanced solutions that protect ratepayers, support grid reliability, and foster economic development.

Data centers represent significant capital investment, high-paying jobs, and tax revenue that can benefit Washington communities for decades to come. We respectfully urge you to consider these perspectives as the state moves forward with data center policy, ensuring that Washington remains competitive in attracting the digital infrastructure investments that are essential to our modern economy.

Thank you again for the opportunity to participate in this work group. We look forward to our continued partnership in building a sustainable and prosperous future for Washington.

Sincerely,

Dan Diorio
Vice President, State Policy
Data Center Coalition

November 7, 2025

Minority Views, Governor Ferguson's Data Center Workgroup

As a participant of the Data Center Workgroup ("Workgroup"), Renewable Northwest ("RNW") submits the following minority views on the Workgroup's recommendations which are primarily suggestions for further clarification and strengthening of the recommendations. RNW is not submitting any minority views on the Workgroup's findings. RNW is a nonprofit organization that advocates for the rapid and responsible decarbonization of the electricity grid across Washington, Oregon, Idaho, and Montana. Our unique organization draws knowledge from our diverse membership, which includes clean energy developers, manufacturers, consulting firms, environmental and consumer advocates, and clean energy buyers including data center companies.

We appreciate the efforts made by the Governor's Office and Department of Revenue to produce factual, balanced findings and evidence-based recommendations, and these minority views are largely supplemental.

**Recommendations**

*2. Strengthen ratepayer protections*
RNW supported this recommendation. We would also support mandatory long-term contracts with minimum off-take provisions, in order to minimize stranded costs. We would also frame this as a recommendation for the UTC and consumer-owned utilities to *consider* establishment of a new rate class, rather than mandating they do so, to allow them flexibility to consider and respond to their unique situations.

*3. Incentivize load flexibility and best practices for energy efficiency*
RNW supported this recommendation. We would also add a 4th element to this recommendation: "Consider offering programs and/or incentives that allow for flexible grid assets–such as battery storage–to be co-located with a data center to increase the ability of data centers to shift load off-peak. Such programs and/or incentives should be tailored to match the commensurate benefit of shifting peak load."

*6. Improve resource forecasting*
RNW supported this recommendation. We suggest an important language clarification in the first bullet point:
"Direct the UTC and the Department of Commerce to create reporting standardization for *forecasting the impacts of* new large loads across regulated and public utilities, which could include data quality, documentation, and information about associated transmission needs."

*7. Enhance transmission capacity*
RNW supported this recommendation. We suggest an additional point to include in this recommendation: “Enable transmission planning that prioritizes least-regrets solutions and enhances capacity in the most needed areas of the grid.” We also recommend working in a direct reference to battery storage as a transmission asset and the importance of considering and deploying grid enhancing technologies for enhancing transmission capacity.

*8. Accelerate siting and permitting of transmission and clean energy generation.*
RNW supported this recommendation. We strongly urge adding a direct reference to battery storage as it is unique and complementary to clean energy generation and transmission. It can also support “bring your own generation” approaches for data centers and enhance general grid reliability.

Thank you to the Governor’s Office and Department of Revenue for your efforts over the course of 2025 to engage deeply in this critically important issue. RNW stands ready as a resource for any future engagement or questions around large loads and maximizing clean energy infrastructure.

Sincerely,

/s/
Casey MacLean
Washington Policy Manager
Renewable Northwest

| | |
|---|---|
| **TO** | David Duvall, Kate Brouns, Beau Perschbacher, Glenn Blackmon |
| **FROM** | Brian Rybarik |
| **CC** | Charlie Inman, Heather Moline |
| **DATE** | November 7, 2025 |
| **SUBJECT** | Data Center Workgroup - Minority Reports |

To the organizers of Governor Ferguson's Data Center Workgroup,

First, I want to express my appreciation for the members of the workgroup, each of whom have brought important information to that table – resulting in good and, at times, challenging conversations. The many perspectives helped us better understand the facts and the implications of various proposals offered during this process. The discussions helped to focus attention on the opportunities and challenges associated with continued growth of the data center industry in Washington as we continue an energy transition, focus on reliability, and emphasize affordability for all utility customers.

I support the package of recommendations approved by the workgroup – but write to identify nuance with several of the recommendations and to provide comment on one recommendation that was not approved by the workgroup.

### *Recommendation #2 – Minority Report*

I support this recommendation. If approved, the UTC has a variety of ways to fulfill the goal of developing practices to protect consumers, including through a policy docket, where we can convene stakeholders and develop a record to identify the best solutions for the state's investor-owned electric utilities.

While I believe the UTC has the authority to fulfill the goals of this recommendation, as noted at the workgroup meetings, these are policy issues on which the Legislature may want to provide input. I stand ready to work with the Legislature to provide information as needed.

### *Recommendation #3 – Minority Report*

I highlight this recommendation to highlight the value of using incentives to innovate. We heard from data center companies that designing and operating flexible resources would be difficult and may not fit with current business models. Recent studies, however, quantify the benefit of large load flexibility to manage utility peak usage, finding that with flexibility requirements, nearly 100 GW of large new loads could be integrated with minimal impact, supporting economic growth while maintaining grid reliability and affordability.[1]

[1] Rethinking Load Growth: Assessing the Potential for Integration of Large Flexible Loads in US Power Systems | The Nicholas Institute for Energy, Environment & Sustainability

Washington is an innovation-forward state. This recommendation seeks to enable innovation in technology and data center operations to better use the grid we already have.

### *Recommendation #5 - Comment*

Though it was not adopted, I support the goal of this recommendation to apply tax incentives in order to advance data center expansion while also helping Washington meet its goals of equity and clean energy, a true win-win. Indeed, with respect to clean energy, the goal is to ensure that load growth from data centers respects and hastens the clean energy requirements applied to all electric providers in the state. Considering that most large data center providers have sustainability commitments that are consistent with Washington policy, such an incentive should benefit all parties.

The discussion on this item suggested that there wasn't enough detail to understand how a tax incentive for new clean energy or transmission could work. Lack of detail now is not a reason to abandon the concept in the future. I encourage the Governor and policymakers to continue this discussion and develop the details necessary to advance these concepts, and I stand ready to assist in that work.

### *Recommendation #6 – Minority Report*

I highlight the importance of this recommendation, as it is the foundation of all utility planning, which is the basis for utility infrastructure decisions. If we have bad forecasts, we make bad decisions, which have reliability and cost implications for all customers.

In an era where forecasts were consistent and showed relatively low increases in electricity demand and usage, this was not an area of focus. Today, we see increasing and widely varying load forecasts, with the Northwest Power and Conservation Council predicting a potential to double average electricity demand by 2046 and almost a doubling of peak demand.[2] Nationally, McKinsey predicts an increase in data center loads from approximately 25GW today to over 80GW by 2030, consuming about 12% of U.S. electricity production at that point.[3] Wood Mackenzie estimates that the Data Center pipeline exceeded 92 GW at the end of 2024, nearly double the peak load of the California Independent System Operator.[4]

Forecasts are never exact – but it is critical that we focus attention on this baseline issue.

### *Recommendation #8 – Minority Report*

I support this recommendation but write to encourage that Executive Order 25-10 be added as a reference in the second bullet point. Signed at the recent Centennial Accord meetings, which I was honored to attend, the Governor's direction is clear: tribal consultation is a required and essential part of any process of state government.

[2] Council releases initial 20-year forecast for Pacific Northwest electricity demand
[3] Data centers and AI: How the energy sector can meet power demand | McKinsey
[4] Data center pipeline capacity exceeds 92 GW by end of 2024, says Wood Mackenzie | Wood Mackenzie

### *Recommendation #9 – Minority Report*

This recommendation is focused on advancing the development of emerging technologies – and therefore the focus is on support for more nascent technologies that are more dispatchable than wind and solar. That said, wind, solar, and short-duration storage options have been commercialized, with costs continuing to come down. This recommendation should not diminish the place these resources have in the solution set to meet the state's clean energy goals.

With respect to the direct access programs identified in this recommendation, this should be an option to meet energy needs, but not necessarily the rule. While direct access has appeal when faced with large energy users that can impact the grid for all – the utility provider model has proven effective to protect consumers and ensure reliability. Targeted use of direct access may be beneficial, but we should be careful not to make wholesale changes.

TO: David Duvall, Dept of Revenue (davidd@dor.wa.gov)
CC: Heather Kurtenbach, Executive Secretary, Washington State Building and Construction Trades Council heather@wabuildingtrades.org
RE: Joint Minority Report for Data Center Workgroup Final Findings and Recommendations

David,

Our organizations remain opposed to any policies that would negatively impact the responsible construction of data centers in Washington State. If the state were to impose policies that disincentivize data centers – effectively blocking these projects – it would eliminate one of our only consistent sources of family-wage, union construction jobs. More importantly, we would be distracting from the state's actual crisis: a failure to build clean generation, storage, and transmission.

The need for data centers will continue. If Washington enacts policies that are too restrictive to this specific industry, projects- and their economic benefits- will simply be pushed to other states with weaker or nonexistent labor protections, lower safety standards, and significantly weaker environmental safeguards.

With existing grid constraints, Washington should balance implementing reasonable regulatory measures on all large load users and accelerating the buildout of clean energy generation and transmission. Washington's data infrastructure can and should be powered by clean electricity—but that will only be possible if the state removes barriers to new utility-scale renewable projects and streamlines the permitting process.

Below are our minority responses to the recommendations finalized at the data center workgroup meeting. Additionally, we include reasonable policy solutions that prioritize working people across the state by ensuring that we can continue to bring union jobs to Washington.

**Minority Responses:**

**Recommendation 3**

This recommendation singles out a specific industry that already operates under our state clean energy laws. Imposing duplicative requirements will disincentivize data center development in our state.

Washington's existing clean energy framework already governs how large energy users plan, procure, and report their energy use and emissions. Data centers are subject to these requirements through their utility providers, which must meet our 100% clean energy and greenhouse gas reduction mandates. Additional sustainability report mandates would create redundant administrative burdens without yielding meaningful new environmental benefits.

Furthermore, this recommendation does not include a clear strategy for protecting or expanding clean energy jobs in Washington. By targeting data centers for additional reporting and compliance costs, the proposal could discourage job creation for our construction trades.

Lastly, incentivizing load flexibility can likely be achieved more effectively through existing utility programs and regulatory mechanisms. The Utilities and Transportation Commission (UTC) already have the authority to promote demand response and energy efficiency programs, and many utilities are actively piloting flexibility solutions that include large commercial customers. It would be worthwhile to have the state put these requirements into statute for the non-IOU utilities as well.

**Recommendation 4**

Much of the analysis and mitigation framework described here is already well established under existing state law and agency practice. Washington's State Environmental Policy Act (SEPA) already provides a comprehensive process for evaluating and mitigating the types of impacts identified in this recommendation.

Additionally, the Department of Ecology and other state and local agencies already maintain extensive expertise, data, and regulatory tools in these areas, including water rights administration, discharge permitting, and air quality management. Ecology's existing programs are well-positioned to address the environmental impacts of data center operations without the need for a study.

**Recommendation 9**

We support advancing clean energy technologies, but Washington has not yet been able to accelerate deployment of emerging resources like geothermal, long-duration batteries, or advanced nuclear.

Additionally, requiring data centers to source their own power risks moving investment and jobs out of state and incentivizes clean energy built elsewhere. Any such programs should ensure that clean energy growth and economic benefits remain in Washington.

Lastly, without labor protections for behind-the-meter generation, our workforce loses current and future jobs.

**Policy Recommendations:**

1. **Implement a Statewide Green Tariff for Large Energy Users**
   Establish a green tariff program for electricity customers exceeding a specified megawatt (MW) threshold. This tariff would ensure that the costs associated with energy consumption and infrastructure development for all large load customers, including data centers, are not transferred to general ratepayers, while providing large users access to renewable energy options. Require the non-IOU utilities similarly.

2. **Adopt Time-of-Use (TOU) Electricity Rates**
   Introduce or expand time-of-use rate structures that align electricity pricing with periods of high and low demand. This policy would encourage large users, to the extent possible, to improve

energy efficiency measures reducing strain on the power system.

3. **Develop Clean Backup Power Incentives**
   Require large energy users to cover application fees for new service connections and for permitting backup generation systems. Incentivize the adoption of battery storage and other clean backup technologies by imposing higher fees or stricter standards on diesel generators.

4. **Address Natural Gas Use and Carbon Allowance Allocations**
   Review and revise policies governing the use of natural gas in large facilities. Reevaluate the allocation of free Cap-and-Trade (CCA) allowances to ensure they are aligned with state decarbonization goals and do not unintentionally subsidize fossil fuel use.

5. **Establish a Clean Energy Impact Contribution**
   Create a small, per-kilowatt (kW) or per-megawatt (MW) impact rate for large-scale electricity users, with proceeds deposited into the statewide Weatherization and Energy Efficiency (EE) Fund administered by the Department of Commerce. These funds support residential energy efficiency improvements, ensuring that large users contribute to broader energy resilience and equity goals.

This minority opinion reflects our continued belief that Washington's approach to data center policy must remain balanced, pragmatic, and focused on solutions that support both family-wage jobs and clean energy development.

We recognize that data centers are energy-intensive, but they are also one of the few consistent sources of union construction work and long-term economic investment in communities across the state. Rather than imposing restrictive policies that risk driving these projects—and their associated jobs—elsewhere, Washington should focus on responsible, transparent regulatory mechanisms that target all large load users in the state while accelerating clean power generation, transmission, and storage. Doing so will ensure that our state continues to meet its ambitious climate goals while maintaining its commitment to Washingtonians to provide good jobs, fair labor standards, and sustainable economic growth.

Sincerely,

*Cassie Bordelon*

Cassie Bordelon, Executive Director
Climate Jobs Washington

*Heather Kurtenbach*

Heather Kurtenbach, Executive Secretary
Washington State Building and Construction Trades Council

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47600, Olympia, WA 98504-7600 • 360-407-6000

November 7, 2025

TO: David Duvall, Department of Revenue

FROM: Diane Butorac, Department of Ecology

SUBJECT: Washington Department of Ecology Minority Report on the Data Center Workgroup Recommendations

**Workgroup recommendations:**

1. **Maintain the integrity of Washington's climate laws.**
4. **Protect community, Tribal, and environmental resources.**
8. **Accelerate siting and permitting of transmission and clean energy generation.**
9. **Accelerate the deployment of existing and emerging technologies, such as geothermal energy, green fuels, long-duration batteries, and nuclear energy to provide data centers with firm energy.**

The Department of Ecology (Ecology) appreciates the opportunity to participate on the Data Center Workgroup and on the Energy and Resource Impacts subgroup. This process helped identify timely and relevant issues and concerns and allowed for the development of findings and recommendations through collaboration among parties with multiple interests.

We are submitting this minority report to emphasize Ecology's continued support for our transition to clean energy while protecting the environment and growing the economy. These recommendations can help data centers move the clean energy transition forward in Washington through new renewable energy development and innovative solutions.

Washington State is a leader in clean energy; yet today we face historic challenges to securing our energy future. To support the growing demand for electrification and large load energy users like data centers, we must take action to rapidly build transmission and generate new renewable energy. Without a coordinated state effort, we face a future of unreliable electricity, higher energy costs, and climate impacts to our people and environment.

Washington's energy and climate policies, as well as its growing economy and population, require significant additional investments in clean energy resources, including electric generation, storage, and transmission assets. The Climate Commitment Act (CCA) and Clean Energy Transformation Act (CETA) set statutory requirements for reducing fossil fuel use.

Washington's energy picture is made more complex by the projected rapid growth of large electricity users, such as data centers. This growth is happening quickly and was not part of long-term resource planning by utilities. The need for new transmission to manage the state's electrification goals is not a new issue, but the unprecedented growth by data centers and the large amount of power that they need has exacerbated the demand upon the system.

To address the lack of transmission capacity in the near-term, multiple data center developers have shared proposals with Ecology to use fossil fuels as the main source of their power. These are mainly "behind the meter," meaning the energy is for their facilities to use directly and not through the electrical grid managed by utilities. The Legislature established CETA to transition the state's electricity supply to be greenhouse gas neutral by 2030. Very few data center developers are proposing to use clean energy to meet their energy needs over the next five years. Several data center developers expect to meet future needs using small modular nuclear reactors or fossil fuel projects with carbon sequestration. While these may be options, there are concerns over the feasibility of these new technologies as they are still in the early stages of research and design and they do not address the immediate need for energy.

Data centers could help move the clean energy transition forward in Washington through new renewable energy development and innovative solutions. We supported a recommendation to tie clean energy development to tax incentives in Washington, but this was not adopted by the workgroup. There is value in ensuring existing clean energy policies are implemented effectively and in considering how to additionally incentivize renewable energy development. Data center developers could support the clean energy transition in multiple ways, such as bringing their own clean power generation, through a power purchase agreement for new clean power capacity, or making contributions to improve grid capacity or transmission. Data centers have contributed to developing clean energy as part of the grid or behind the meter, however, we are concerned with the multiple current proposals in Washington that only consider fossil fuel options and dependence on unproven technologies for the future.

Ecology also stated concerns that rapid growth in energy use from data centers, if supported by fossil generation, would impact the state's ability to meet its statutory greenhouse gas limits. The allowance market within the Cap-and-Invest Program, authorized by the CCA, sets its allowance supply consistent with Washington's statutory greenhouse gas limits. If data centers use fossil fuels as a significant source of power, this would increase overall demand from limited and declining economy-wide allowance supply. Rapid increases in allowance demand are likely to increase the price of allowances until commensurate emission reductions elsewhere in the economy can be achieved. Additionally, depending on how data centers purchase power, they could greatly expand the retail load of local utilities. If utilities do not serve data centers with clean energy, no-cost allowances allocated to electric utilities could increase. No-cost allowances provided to electric utilities are intended to mitigate the cost burden of the Cap-and-Invest Program on retail electric customers, protecting Washington residents from potential rate increases. But increasing no-cost allowance allocation to electric utilities to meet data center load could restrict allowance supply at auction, raising auction prices for all participants.

During the workgroup process, Ecology raised concerns over potential environmental impacts from data center development, especially when there are multiple new facilities in a small area that could lead to cumulative impacts. The use of fossil fuels for main power and emergency back-up power as well as refrigerant gases could affect air resources and communities. Cooling systems can use large amounts of water and energy which can affect local water systems, Tribal resources, and energy costs. The workgroups had many discussions about these issues and while some data centers are using or planning to use state-of-the-art technologies, others are not. We highly recommend developers engage early with Tribes and communities to identify concerns and attend pre-application meetings with agencies to help understand permit requirements. These types of early engagement can help avoid and minimize impacts.

We support growing our economy in a way that ensures a healthy environment, meets our energy and climate obligations, and benefits all of Washington. We must take action to rapidly build transmission and generate new clean energy to minimize emissions and support not only data centers, but improve reliability and resiliency across our electrical grid and to keep electricity affordable for Washington families.

**Matthew Hepner**

**East Wenatchee City Council position 7.**

**Local Government**

Mr. David Duvall.

Local governments like East Wenatchee strongly support responsible data center development because these projects deliver sustained local economic benefits: family-wage construction and operations jobs, predictable long-term tax revenue, expanded business activity, and investments in public services and infrastructure.

**Executive summary**

- Data center construction has been a major driver of local economic development — creating union construction jobs, permanent operations employment, and multiplier effects for suppliers, contractors, and local businesses.
- Blocking or constraining the industry will shift investment to other states taking revenue away from local governments here at home.
- The real statewide constraint is insufficient clean generation, storage, and transmission capacity — not the existence of digital infrastructure like data centers. Policy should focus on accelerating clean energy buildout and modernizing the grid while ensuring fair cost allocation and protections for ratepayers and communities.
- Local governments favor targeted, practical policy tools that allow communities to capture benefits, mitigate impacts, and ensure projects are responsibly sited and powered by cleaner resources.

**Local government framing of core findings**

- Economic and workforce impacts: Data centers support thousands of direct construction jobs and additional long-term local employment (e.g. facility operations, facility services, local suppliers). They provide stable, taxable commercial activity that funds local services—public safety, roads, schools, and utilities—without the volatility of some other industries.
- Fiscal benefits: Property taxes, business & occupation taxes, permit fees, utility hook-up fees, hotel motel tax, and other local revenues from data centers provide reliable revenue streams that help stabilize municipal budgets and reduce pressure on residential taxpayers.
- Community and environmental impacts: Local governments like East Wenatchee acknowledge potential impacts — water demand, land use changes, traffic during construction, cultural and environmental concerns — and assert that these are manageable with early coordination, mitigation measures, and conditions established through local permits, SEPA, and interlocal agreements.

- Regional competitiveness and leakage risk: Excessively onerous or unpredictable statewide restrictions will redirect projects to other jurisdictions, reducing regional investment and potentially sending jobs to states with less robust worker and environmental protections.

**Local government priorities**

- Promote balanced growth: Encourage data center investment that expands local jobs and revenues while safeguarding water, cultural resources, and the environment through local review, mitigation, and community benefit agreements.
- Share costs fairly: Ensure new large load users pay for their direct interconnection, distribution, and local system upgrades so costs aren't shifted to other ratepayers or residents.
- Accelerate clean energy: Prioritize policy and permitting changes that speed clean generation, storage, and transmission so data centers can be powered with low-carbon electricity without constraining local development.
- Preserve local authority: Maintain local land-use and permitting roles so communities can negotiate siting, mitigation, and community benefit conditions tailored to local needs.
- Transparency and coordination: Standardize reporting and early notification from applicants to utilities, local governments, and Tribes to identify impacts and mitigation early.

**Recommended actions for the Governor, Legislature, and state agencies**

1. **Accelerate clean generation and transmission buildout**

- Prioritize removal of permitting and siting barriers for renewable generation, long-duration storage, and transmission projects (streamlined permitting timelines, coordinated environmental review, and siting councils working with local governments and Tribes).
- Establish a state entity or strengthen an existing authority to coordinate transmission planning, siting, financing, and land acquisition to reduce local friction and deliver projects faster.

2. **Require fair cost allocation and local protection measures**

- Adopt rules ensuring new large loads (threshold by MW) pay for direct interconnection, required distribution upgrades, and any local system impacts through application/service extension charges or similar mechanisms.
- Encourage development of model tariffs and contract terms (by UTC and public utility boards) that define MW thresholds, commercial readiness criteria, credit requirements, and interconnection cost responsibility so localities and ratepayers are protected.

3. **Design green-tariff and procurement pathways benefitting local communities**

- Create statewide green-tariff options enabling large loads to fund investment in local and regional clean resources (e.g., long-duration storage, geothermal, community-scale renewables) with mechanisms to avoid cost shifts to other ratepayers.

- Allow municipalities and special districts to negotiate community benefit investments as part of green tariff or tax-incentive packages (workforce training, affordable housing, energy efficiency programs).

**4. Strengthen workforce and local hiring commitments**

- Promote and condition incentives on local hiring, apprenticeship utilization, prevailing wages, and project labor agreements for construction to ensure community job access and quality employment.
- Fund apprenticeship systems so local residents can access the construction and operations jobs generated by data centers.

**5. Improve resource forecasting, transparency, and readiness standards**

- Standardize reporting requirements across utilities for new large load applications (common data format, timing, and disclosure of aggregations/duplicative requests). This helps local governments, utilities, and Tribes plan water, wastewater, transportation, and emergency services.
- Establish commercial readiness and queue-entry criteria to reduce speculative interconnection requests that complicate local planning.

**6. Manage water, land-use, and environmental impacts locally with state support**

- Require data centers to publish sustainability reports before construction showing energy and water balance, cooling technology, and plans for effluent management; require annual water-use reporting to the state.
- Fund state-local technical assistance and grants to help smaller jurisdictions evaluate potential cumulative impacts on water supplies, habitat, and cultural resources and to implement mitigation (e.g., water reuse, alternative cooling, infrastructure upgrades).
- Direct Ecology to develop best practices for siting and operating data centers with local governments, Tribes, and permitting agencies focused on water, air, and cumulative impacts.

**7. Protect Tribal rights and cumulative impacts**

- Require early, funded engagement with Tribes and local communities in site selection and permitting processes to identify treaty and cultural resource impacts and appropriate mitigation.
- Use cumulative-impact assessments when multiple large loads are proposed in a single watershed or region, and require mitigation or staged development where impacts exceed local resource capacities.

**8. Model policy tools local governments support**

- Green tariff statewide for large loads (MW threshold) that funds local/regional clean generation without shifting costs to residential ratepayers.

- Time-of-use and demand-flexibility incentives to reduce peak grid stress and create value for communities (e.g., grid services revenue shared regionally).
- Per-kW or per-MW deposits/fees earmarked for statewide weatherization, energy efficiency and local community resilience funds (administered by Commerce).
- Application, service-extension, and interconnection fees payable up-front and refundable only upon demonstrated progress toward commercial readiness to discourage speculative projects.

**Conclusion**

Local governments are not asking to block data center development; we strongly support responsible projects that create family-wage jobs, predictable revenue, and lasting local economic benefit. But that support depends on policies that: (1) ensure data centers pay their fair share for the local and grid costs they impose; (2) accelerates the clean generation, storage, and transmission needed to power them and the local communities; (3) preserve local land-use authority and community safeguards; and (4) guarantee workforce opportunities and tribal consultation. Washington can and should be both a national leader in clean energy and a competitive, fair place for data center investment — if state policy focuses on system-wide solutions rather than singling out one industry for restriction.

**Requested coordination items**

- Provide a consolidated data request on how many GW of new clean generation and utility-scale projects have been developed in the last five years, and current shortfall estimates relative to modeled needs for new large loads.
- Develop joint UTC-Commerce guidance for standardized reporting on large-load applications to help local governments and Tribes assess cumulative impacts early.
- Fund a state-local technical assistance pool to support jurisdictions facing potential cumulative impacts from clustered data center proposals.

From: Cameron Steinback, Front and Centered | cameron@frontandcentered.org
To: David Duvall, Chair, Data Center Workgroup | davidd@dor.wa.gov

Subject: Data Center Workgroup Minority Report - Finding #20

Finding #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.

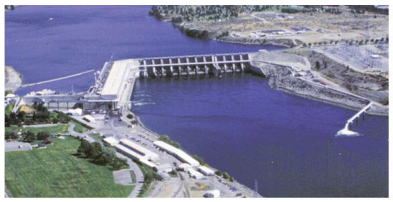
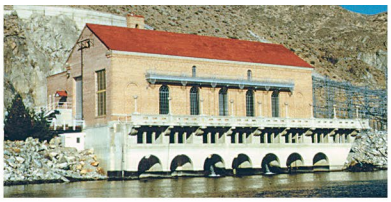
a. Ecology has existing general permits for water discharges and is developing a general order for data center emergency engine operations.

Front and Centered expresses our concern that general orders, specifically those permitting emergency backup generators, pose the significant risk of overlooking cumulative impacts. Even with additional conditions, including best available mitigation for emissions, testing and monitoring requirements, and a specific geographic scope, accelerating siting and permitting through general orders limits the already minimal opportunities for impacted communities to have their priorities included in formal review processes. SEPA's environmental review processes are necessary to assess the disproportionate harms experienced by frontline communities and give agencies and communities the necessary data to meaningfully engage in permitting decisions. SEPA also formalizes opportunities to intervene when potential impacts are identified and requires a certain level of transparency through public comment periods, public hearings, and agency responses to comments. Failing to preserve these types of safeguards when developing ways to accelerate and streamline both administrative and developmental processes related to permitting and siting will likely perpetuate disproportionate negative environmental and health outcomes.

For example, an air quality general order was proposed for data centers near the cities of East Wenatchee, Malaga, and Quincy. The general order would cap installation of emergency diesel generators at 21 per site. This is a substantial quantity, given the expected expansion and growth of data centers in the region. To contextualize the potential emissions that could result from the installation of diesel engines at this scale, a health impact assessment for 13 extra generators at the Sabey Data Center in Quincy found that the additional generators will create over 9 tons of NOx, 2 tons of PM 2.5M, and 2 tons of PM 10 with almost a ton of NO2 and diesel exhaust particulates.

The determination for the air quality general order is based on incomplete data, and a determination of non-significance has precluded the requirement of an environmental impact statement under RCW 43.21C.030(2)(c). Problematically, the completed environmental checklist does not account for the projected increase in data centers and accompanying emissions from other emergency generators, or the proximity to vulnerable, overburdened communities or sensitive locations such as schools or hospitals, since site-specific data is unknown under these types of general orders.

While opportunities for input are available periodically during general order renewal periods, public comments and potential mitigation is assessed as part of the broader category that the facilities belong to rather than on a site-specific level. This eases the burden for facility owners, developers, and state agencies by making these processes faster and simpler, but creates new barriers for frontline communities by making it more difficult to provide input on localized impacts and harms related to specific facilities. Given that future data center emissions may account for a majority of overall diesel emissions in areas covered by the general order, such as Quincy, there is a clear need for greater attention to cumulative impacts and protecting public participation requirements, which must be upheld as accelerated permitting and siting processes are developed.

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November 7, 2025

Governor Bob Ferguson
Office of the Governor
PO Box 40002
Olympia, WA 98504-0002

RE: Chelan PUD's Minority Report to the Governor's Data Center Workgroup

Dear Governor Ferguson,

Thank you for convening the Data Center Workgroup to examine how Washington can responsibly balance the rapid growth of data centers with the state's clean energy goals, electric grid reliability, and long-term affordability.

On behalf of Chelan County Public Utility District (PUD) and our customers, it has been a privilege to serve as a member of the full Workgroup and the Energy & Resource Impacts Subgroup. Chelan PUD's structure and history give us a unique vantage point on data center development. We understand both the opportunities and the risks that these large energy users present, and we're committed to helping shape strategies that address these challenges.

Unfortunately, several of the Workgroup's adopted recommendations fall short in addressing core system challenges and, in some cases, risk undermining the governance and regulatory models that have served our communities well for nearly 100 years. Chelan PUD respectfully submits this Minority Report to record the concerns of public utilities and our customers, offer constructive alternatives, and underscore the need for practical, locally grounded solutions.

**About Chelan PUD**

Unlike most public utility districts in Washington, Chelan PUD does not purchase power from the Bonneville Power Administration. We are a power generator. We own and operate one of the largest non-federal hydropower systems in the nation.

COMMISSIONERS: *Kelly Allen, Garry Arseneault, Carnan Bergren, Steve McKenna, Randy Smith* GENERAL MANAGER: *Kirk Hudson*

Roughly 20 percent of the energy we produce serves our 52,000 retail customers within Chelan County. The remainder is sold to regional partners, including Puget Sound Energy and Avista. The power generated by Chelan PUD helps keep the lights on in the Puget Sound area and Spokane. This generation capacity has long allowed Chelan PUD to remain energy self-sufficient. However, we are now facing an unprecedented wave of demand growth, driven largely by large load requests from data centers.

The PUD's current average annual load is about 228 average megawatts, yet our interconnection queue includes requests totaling an additional 1,428 megawatts. While not all these projects will materialize, the scale of potential growth represents a fundamental shift for our utility. Our 2023 Integrated Resource Plan progress report forecasts total load increasing by 230 percent between 2023 and 2032, an unprecedented increase.

This transformation has implications not only for Chelan PUD but also for the state's energy system as a whole. More local consumption reduces the surplus power we sell on the wholesale market. That energy is used by other utilities in the state to meet their clean energy obligations, and it generates revenue for the PUD that allows us to keep rates affordable.

Recognizing these dynamics, our Board of Commissioners adopted a set of guiding principles for evaluating data center and other large load requests, with a focus on maintaining reliability and rate stability for existing customers.

Within this framework, Chelan PUD has built productive partnerships with data center developers, including Microsoft, which constructed a new facility in Chelan County this year. Through careful planning, we have created the conditions for responsible technology growth, attracting investments that align with our long-term vision.

Chelan PUD is also looking ahead to the next frontier of clean energy. Our collaboration with Helion embodies that spirit of innovation – a bold step toward harnessing fusion power and redefining what's possible in sustainable energy generation – and we continue to evaluate potential geothermal generation.

This progress underscores the power of local utility governance. The ability to design utility-specific policies – like our large load framework – has been central to our success navigating the new energy landscape. It's a model that demonstrates how local decision-making can balance economic opportunity, environmental stewardship, affordability, and public accountability.

**The Resource Adequacy Challenge**

While our experience shows that clean, reliable, community-centered growth is possible, across the Northwest, the energy system is under immense pressure. As data centers and other energy-intensive industries expand to power the digital age, they are putting a new level of strain on resource adequacy. Firm generation is retiring, new resources are slow to arrive, and the once-stable grid is being tested in ways it has never been before.

The Pacific Northwest Utilities Conference Committee in its 2025 regional forecast projected a load-growth increase of more than 30 percent by 2034 – a dramatic shift that will test the region's generation and

transmission capacity. A recent Energy + Environmental Economics (E3) study found that without consequential action to address the widening gap between future energy demand and supply, our region faces the possibility of rolling blackouts as soon as next year in extreme conditions. Ensuring resource adequacy, while also containing rapidly increasing energy costs that are straining family budgets, is a critical challenge that requires bold solutions.

Washington must adopt a coordinated, long-term strategy that ensures generation and transmission development stay ahead of demand, and the time to act is now. The choices made in the next five years will determine whether this period becomes one of scarcity, or transformation.

We strongly believe state policy should enable, not impede, utility-led action by aligning timelines, streamlining permitting, and removing barriers that slow the development of new, clean energy resources. Ensuring a resilient clean energy future will depend on giving utilities the flexibility and certainty to do what they do best: plan, build, and operate the systems that keep Washington powered.

To that end, Chelan PUD urges the state to resist expanding its role or administrative footprint through the creation of new offices and agencies and instead focus on removing policy and process barriers. We ask that the state take decisive action in the following areas:

- Streamline siting and permitting: Accelerate approval of new clean energy generation and transmission projects.
- Reevaluate clean energy policy timelines: Provide additional flexibility in interim compliance targets to ensure utilities can meet statutory clean energy goals while preserving reliability and affordability.
- Support firm resource technologies: Prioritize investment and incentives for scalable firm resources such as advanced nuclear, long-duration storage, and geothermal, and remain open to natural gas as a bridge to our clean energy future.
- Improve load forecasting: Strengthen coordination and transparency in large load forecasting to avoid over- or under-investment.
- Preserve local ratemaking authority: Uphold the autonomy of consumer-owned utilities to design rates and policies suited to their systems and communities.

Chelan PUD is encouraged that the Governor's Office and leadership at state agencies such as Commerce and Ecology are openly acknowledging and thinking through ways to address the magnitude of the resource adequacy challenge. This growing recognition marks an important and positive step.

However, while the Data Center Workgroup's findings and recommendations acknowledge these concerns, the adopted recommendations do not directly address their underlying causes and miss the opportunity to advance meaningful solutions.

Chelan PUD's approach to data center growth is simple: to plan for tomorrow with intention and act as good ancestors for the generations that will inherit the systems we build today. That perspective has informed my participation in Workgroup discussions throughout this process, as well as the PUD's positions on the following Workgroup recommendations.

*(Note: We support the overarching goals of these recommendations. However, many of the sub-bullets propose actions that do not reflect the realities utilities face in planning and operating reliable systems. These are complex, interdependent systems that demand both technical understanding and practical experience. My comments are offered from that experience – affirming the intent of the recommendations while clarifying where priorities raised by various interests on the Workgroup conflict with the practical demands of power generation and delivery.)*

**Recommendation 1:** *Maintain the Integrity of Washington's Climate Laws*

- *Ensure Washington's Climate Commitment Act and Clean Energy Transformation Act operate as envisioned to cover any fossil or unspecified power sources used by large data centers.*

Chelan PUD Position: Do not support

Chelan PUD remains committed to Washington's clean energy and carbon-reduction goals and supports the intent of the Clean Energy Transformation Act (CETA). However, this recommendation risks enshrining inflexible policies that fail to adapt to real-world system conditions and emerging technologies.

To ensure long-term grid stability in the face of rapid large load growth and to protect affordability, the state must maintain flexibility in policy implementation. A responsive, evidence-based regulatory framework will keep the energy transition grounded in operational realities and safeguard customers' access to clean, affordable, and dependable electricity – vital for public health, safety, and daily life. This adaptability is also essential to maintaining public trust in the state's clean energy transition.

**Recommendation 2:** *Strengthen ratepayer protections.*

- *Require the UTC and consumer-owned utilities develop model tariffs or model contracts for a new rate class that: (1) identify a MW threshold for the tariff serving new large loads; (2) specify the characteristics of these new loads; (3) require new large loads pay for the direct interconnection costs caused by their interconnection; (4) require new large loads cover any costs of generation, transmission or distribution systems required to serve new large loads and avoid shifts of costs or risks to other customer classes, including potential stranded assets.*

Chelan PUD Position: Do Not Support

There are several positive concepts in this recommendation that Chelan PUD supports in principle, particularly the emphasis on ensuring new large loads pay for their fair share of interconnection and system upgrade costs. Chelan PUD has recommended to the Workgroup that data centers make meaningful financial commitments, including paying a portion of grid upgrade costs upfront. Many consumer-owned utilities, including Chelan PUD, already include provisions in their contracts requiring customers to cover direct interconnection costs.

However, requiring consumer-owned utilities to develop model tariffs or contracts in a prescribed manner would undermine the ratemaking authority of locally elected utility commissions. Each utility has unique

resource portfolios, system constraints, and customer priorities. A top-down, statewide model would erode this governance structure and limit our ability to craft rate solutions tailored to local needs.

The state's role should be to support coordination, data-sharing, and transparency – not to prescribe contract terms.

**Recommendation 3:** *Incentivize load flexibility and best practices for energy efficiency.*

- *Direct agencies to identify, incentivize, and unlock the potential for load flexibility, particularly from large data centers. Incentives could include specific tax incentives or faster interconnections for large loads that are able to participate in demand response programs or those that help fund demand response and energy efficiency for low-income households and other customers.*
- *Require data centers to publish a sustainability report prior to construction that demonstrates how the data center balances energy, water, and computing performance. Require the report to be updated when replacing equipment.*
- *Fund the Energy Policy Office to conduct a study on the potential to meet data center loads with on-site energy generation or storage, demand response programs, or load management programs, and include recommendations on any program or policy changes that may be needed to achieve the potential.*

## Chelan PUD Position: Do Not Support

Chelan PUD agrees with the importance of maintaining operational flexibility to ensure system reliability, particularly given the grid's limited reserve margins during extreme conditions. We support demand management and flexible load practices through utility-specific programs. However, we oppose state-level incentive structures that override consumer-owned utility discretion and conflict with the public utility principle of local decision making. Again, each utility has unique resource portfolios, system constraints, and customer priorities.

**Recommendation 4:** *Protect community, Tribal, and environmental resources.*

- *Direct and fund the Department of Ecology to conduct a study and develop best practices for siting and operating data centers with input from permitting agencies, industry, Tribes, interested parties, local government, and utilities. The study will address:*
- *Water resources, including water availability, water quality impacts, direct and cumulative impacts on the local water system, and potential for discharges that cause a municipal water system to exceed its capacity resulting in untreated water entering streams or rivers;*
- *Impacts to Tribal rights and resources; and*
- *Air resources, including greenhouse gas emissions and direct and cumulative air emissions.*
- *Replace the data center sustainability provisions in existing law [such as RCW 82.08.986(4)] with a standard that more specifically encourages energy and water efficiency at newly constructed data centers.*
- *Require data centers to report water use annually to the state. The report should include daily quantities (total and peak uses) and any effluents that are discharged outside the data center.*

- *Encourage the Northwest Power and Conservation Council (NPCC) to incorporate the anadromous fish managers' recommendations on the spill and reservoir operations at the dams into the Columbia Basin Fish and Wildlife Program. The NPPC would then incorporate those operations into the development of the next Pacific Northwest Conservation and Electric Power Plan*

### Chelan PUD Position: Do Not Support

Protecting community, Tribal, and environmental resources is central to Chelan PUD's mission and reflected in the work we do every day. However, this recommendation as written conflicts with federal law and existing hydropower licensing frameworks.

The Federal Energy Regulatory Commission (FERC) maintains exclusive authority for licensing and oversight of non-federal hydropower projects, including all environmental mitigation and fish and wildlife conditions. As part of its responsibilities under the Federal Power Act (FPA), FERC determines appropriate protection, mitigation and enhancement (PM&E) measures to ensure that licensed hydroelectric projects are "best adapted to a comprehensive plan for improving or developing a waterway or waterways" across the spectrum of public and natural uses, including hydropower generation, PM&E of fish and wildlife resources, recreation, water supply, navigation, and irrigation. Under the FPA, all licensed conditions to achieve this balance under are included in each project's federal operating license.

Directing the state to impose additional resource conditions through separate processes risks duplication and regulatory conflict.

Chelan PUD supports collaborative engagement among the state, Tribes, and licensees within the FERC framework but cannot endorse a recommendation that compromises established federal jurisdiction and existing agreements.

**Recommendation 7:** *Enhance transmission capacity.*

- *Create a state entity to support the development of transmission projects, which could include permitting, land acquisition, finance and even construction.*
- *Direct agencies to prioritize upgrades to existing transmission lines with grid enhancing technologies.*

### Chelan PUD Position: Do Not Support

Chelan PUD strongly supports increasing transmission capacity across the state but creating a new state authority is not the solution.

Establishing new bureaucracy could add administrative complexity without addressing the true barriers to infrastructure development: permitting delays and regulatory uncertainty. The state's most constructive role would be streamlining permitting, facilitating federal-state coordination, and ensuring that cost allocation and planning processes respect regional transmission governance.

We recommend the state work proactively with federal agencies to pre-permit transmission corridors on both state and federal lands. Pre-clearance of routes would expedite future transmission projects by completing much of the environmental and regulatory review in advance. We also support the categorical exemption for transmission upgrades that was included in SB 5466 as introduced in 2025.

**Recommendation 9:** *Accelerate the deployment of existing and emerging technologies, such as geothermal energy, green fuels, long-duration batteries, and nuclear energy to provide data centers with firm energy.*

- *Create a direct access program for new large loads in Washington to allow customers to source their own power.*
- *Design green tariffs for large data center companies to invest in innovative higher-cost clean energy resources, such as long-duration battery storage.*

## Chelan PUD Position: Do Not Support

Chelan PUD supports the intent of this recommendation. We particularly emphasize the need to prioritize on-demand, dispatchable resources – technologies capable of providing firm capacity to maintain reliability as Washington is increasingly reliant on variable resources.

In addition to the technologies listed here, Chelan PUD believes natural gas with carbon capture must be recognized as a vital near-term resource, and we were disappointed it was left out of the final recommendation. It provides dependable capacity during periods of low renewable generation and protects public safety during extended cold-weather events. (For example, during the January 2024 cold snap, wind generation across the Pacific Northwest fell to nearly zero as demand surged. Solar and short-duration batteries also provided limited support, contributing less than 10–20 percent of their nameplate capacity compared with more than 90 percent for natural gas resources.)

Until other emerging technologies become commercially available and affordable at scale, natural gas will remain an important bridge.

We are also concerned that this recommendation includes the creation of a direct access program for large loads. Such a program would allow certain customers to bypass their local utilities and purchase power directly from the market. While that may sound like a way to expand choice, it would undercut the integrated planning, reliability management, and cost-recovery systems that keep Washington's public power model stable and affordable.

Buying power on the open market is only part of the challenge – delivering it requires access to a constrained transmission system regulated by FERC. Available transfer capacity (ATC) is already limited. Allowing direct access would force utilities and essential service providers to compete with global tech companies with far greater financial leverage for that scarce capacity. That imbalance could drive up costs, strain reliability, and push rates higher for everyone else.

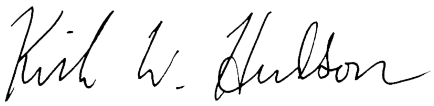
At the local level, distribution systems are built and managed by locally elected utility boards. These systems are carefully planned and expanded to match community growth and keep rates affordable. Direct access

would erode this local control by forcing utilities to invest in costly system upgrades for large, market-driven loads. These costs would be borne by existing customers, and if large users later curtail operations or leave, communities could be left paying for stranded assets.

Utilities are best positioned to manage power delivery within their jurisdictions. Our model of local governance ensures accountability, transparency, and fairness – principles that could be compromised by one-size-fits-all market mechanisms like direct access

Once again, thank you for the opportunity to be part of the Workgroup and to provide input on such an important issue for the future of Washington State. Please let me know if there is an opportunity to discuss any of our concerns further.

Sincerely,



Kirk Hudson
General Manager, Chelan County PUD

The Nature Conservancy
Washington

*Submitted electronically*

November 7, 2025

David Duvall
Washington Department of Revenue
Olympia, WA 98504-7600

**RE: Minority Report to the Washington Data Center Work Group Final Findings and Recommendations**

Dear Mr. Duvall,

The Nature Conservancy (TNC) expresses our deep appreciation to Governor Ferguson, Governor's Policy Leads, Department of Revenue staff, and Department of Ecology staff for convening and shepherding the Washington Data Center Work Group to this stage of final Findings and Recommendations. I am grateful for the opportunity to have participated, to learn from others, and bring our perspective to the conversation.

TNC reflections on select findings and recommendations are below, and I'd like to note that TNC is part of separate joint submission with NW Energy Coalition and Front and Centered related to Recommendation #5 that I've also included in this Minority Report. We also encourage the Governor, agencies, state legislators, Work Group participants, and members of the public to give strong consideration to the Yakama Nation submission related to the Findings and Recommendations. We have engaged deeply with their representatives during the past few months and believe it is critical to be responsive to their thoughtful comments and the reserved Treaty rights of Sovereign Tribal nations.

Thank you for your leadership on this very important issue to Washingtonians, and for your consideration. Please feel free to contact me at (703) 340-7553 or justin.allegro@tnc.org if you have any further questions on our comments.

Sincerely,

Justin Allegro
Policy Director
The Nature Conservancy in Washington

**74 Wall Street**
Seattle, WA 98121
**Tel:** (206) 343-4344
www.WashingtonNature.org

**Findings – Tax Revenue & Economic Development Subgroup**

This section outlines the economic and fiscal impacts of data centers in Washington, including siting factors, tax incentives, job creation, and local infrastructure improvements. We are only commenting on one finding in this section.

**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.**

Comment: We think this is an important finding, which we agree with strongly. To be clear, falling behind does not – and cannot – mean that we should walk back from these targets. It simply means places more of an obligation on the state and on partners to figure out the necessary, integrated solutions to achieve this top priority.

**Findings – Energy & Resource Impacts Subgroup**

This section addresses the energy demands of data centers, their impact on the grid, environmental and tribal concerns, and regulatory challenges. Rather than specific comments on each individual findings, the Nature Conservancy wishes to express our support the findings "en toto". Why they may not be how we would write each section, we think they reflect well the situation. The lone area they TNC feels could have been better reflected was in capturing better the substance of the Yakama Nation's comments on these findings. We wish to express kudos to the Commerce staff and Governor's office for leading these findings.

**Recommendations**

These recommendations aim to align data center development with Washington's climate goals, protect communities, improve forecasting and transmission, and accelerate clean energy deployment.

**Recommendation 1 – Maintain Integrity of Washington's Climate Laws**

Comment: We support this recommendation with vigor.

**Recommendation 2 – Strengthen Ratepayer Protections**

Comment: We support this recommendation. There is substantial momentum in this arena from within other jurisdictions. We appreciated the Work Group conversation and specifically the

perspective of utilities and the UTC regarding the relatively unique set of management considerations associated with the connection and service requirements for most data centers.

**Recommendation 3 – Incentivize Load Flexibility & Efficiency**

Comment: We support this recommendation, but additionally we would prefer to see a direct connection in the tax incentives to minimum standards for demand response participation and energy efficiency, as well as water efficiency, given the rapid progress in this space that is seemingly in the news every day. Giving Commerce Energy staff the authority to determine appropriate levels based on available technology could be an approach. In light of existing resource adequacy challenges which will be exacerbated by the predicted demand of data centers, on-site and in-lieu (funding utility demand-response programs) is appropriate.

**Recommendation 4 – Protect Community, Tribal, and Environmental Resources**

Comment: We support this recommendation and also encourage further consideration of Yakama Nation and CRITFC recommendations.

**Recommendation 6 – Improve Resource Forecasting**
Comment: We support this recommendation.

**Recommendation 7 – Enhance Transmission Capacity**
Comment: TNC supports the recommendation. We believe a Transmission Development Authority can help identify gaps in the implementation of our planned transmission system, spaces that are more complex or have less ripe business interest incentives but are nonetheless essential sooner rather than later for a clean and connected grid necessary to meet our climate targets and provide more affordable, reliable energy to Washingtonians. An authority with the appropriate connection to full or partial public financing can both enhance transmission capacity and reduce costs on ratepayers at an unprecedented time of infrastructure buildout.

Finally, the recent Connected West study shows the potential for better utilizing existing transmission resources and deploying GETS, so we are grateful for that element of this recommendation.

Missing in the recommendation is anything related to Bonneville Power Administration's generation interconnection process, which has represented a substantial barrier to deployment that we all must be dedicated to resolving through innovative solutions and the pressure that the state and region can bring to bear.

**Recommendation 8 – Accelerate Siting & Permitting of Transmission & Clean Energy**

Comment: TNC supports this recommendation, as we strive to support efforts to accelerate the pace and scale of necessary transmission and clean energy, while both maintaining the protections for Tribal resources, natural lands, and community needs *AND* incentivizing more rapid decision-making processes for projects with lower conflict. In the nearest term, accelerating the pace as it relates to transmission capacity is of utmost importance for our state's decarbonized energy grid and to provide timely, firmer resources for data centers.

We concur with regional findings—including our own analyses—which show that fuel switching to electricity is essential to meeting Washington's climate targets. This likely necessitates at least doubling the supply of electricity resources, adding substantial transmission capacity, and deploying projects at a pace multiple times faster than we've deployed them in the recent past.

TNC believes there are current efficiencies to be gained in the review, permitting, and appeals processes, including some reform to the EFSEC process and structure and SEPA exemptions for reconductoring and rebuilding transmission with an agreed upon separate process for Traditional and Cultural resources.

We also believe creative paradigms that are substantially different from modus operandi may well be in order, and their growing examples in other jurisdictions that Washington should test out. Designating Clean Energy Acceleration Areas identified with Tribal consent, for instance. Or pre-application Traditional and Cultural Resource surveys led by Tribes in highest priority transmission corridors. Or a feed-in tariff to support win-win-win utility-scale agrivoltaics projects. Or a "fair share" threshold for solar development in each county's agricultural lands of long-term commercial significance tied to agricultural conservation easement purchases. Or enhancing Tribal ownership and investment structures.

We further believe that more effort is needed to place the avoidance of community, conservation, and Traditional and Cultural Resource conflicts on par for developers and utilities with finding willing landowners and transmission proximity. That can be and should be better incentivized or required.

Linking these two ideas – incentivizing or requiring more consideration of conflict avoidance and pre-application engagement and avoidance of Tribal resources, and then driving faster decision-making timelines – is too logical and attractive an idea to avoid any longer.

Importantly, better sited projects with faster timelines translates to less litigation costs and delays and much less time for developers to hold financing without revenue. We need to see that this is directly related to the costs utilities will then pass through to ratepayers for these resources. In a world where federal tax incentives are not available for now, protecting ratepayers through faster, less contentious review and decision-making is important.

To help with all of these concepts, TNC also expresses our strong support for Yakama Nation and Columbia River Intertribal Fish Commission recommendation for a Comprehensive Energy

and Transmission Plan that would identify where these facilities could be developed with the least conflict and areas that should not be developed. As they note, for such an effort to be most effective, the state family would need to step into a formal partnership role.

**Recommendation 9 –** Accelerate Deployment of Emerging Technologies

Comment: TNC supports this recommendation and believes smart utility policy could help direct data center electricity needs towards clean, firm resources that are grid-connected, such that they can contribute resource adequacy and reliability while reducing the need for as much variable generating resources over time. We believe a direct access program for new large loads in Washington to allow customers to source their own power should be limited to renewable resources and non-emitting electricity generation as defined in RCW19.405.020.

**Draft Recommendation #5 –** Provide for geographic equity and new clean energy requirements within the data center sales and use tax exemption

Comment: This was considered but narrowly not adopted by the Work Group. The first bullet in that recommendation is to:

> *Expand eligibility to all counties and align the requirements for the rural and urban exemption into one statewide tax incentive. Currently, Thurston, Kitsap, Whatcom, Clark, Benton, and Spokane County cannot qualify*.

TNC is potentially amendable to legislative dialogue expanding and aligning the scope of the incentives, but we feel that expansion and alignment should be *contingent* upon linking incentives with rigorous and sufficient new clean energy requirements and/or investments and demand flexibility approaches and considering energy and water efficiency and demand flexibility minimum standards.

For the second bullet in that recommendation, related to requiring new clean energy capacity requirements to data center tax incentives, please see separately submitted joint statement that TNC supported with partners, which are also included below. Separately, TNC believes legislative action on this topic should consider the geographic location of a new clean energy Power Purchase Agreement (PPA) associated with a Washington tax incentive. There is an active discussion at the moment around geographic location and time-matching associated with Virtual Power Purchase Agreements (VPPA). Recommendation #5 had not clarified if a PPA for new clean energy capacity was intended to only be for grid-connected power capable of servicing load in Washington or if a VPPA for new clean power elsewhere could be acceptable. The legislature should also consider if a PPA anywhere in the Western Interconnect is equivalent to a PPA in a more limited footprint, such as BPA service territory or the Northern Grid footprint.

> ***Joint Statement on Recommendation #5, Bullet Two Regarding Clean Energy***
> *Zachariah Baker, NW Energy Coalition; Cameron Steinback, Front and Centered; Justin Allegro, The Nature Conservancy*

*Our organizations feel strongly that data centers must be powered by clean energy. The State's data center tax incentives don't currently require use of clean energy. Bullet Two of unsuccessful Recommendation #5 recommended changing that:*

> *"Add a requirement to the tax incentive related to new clean energy capacity. There would be a variety of pathways for compliance with this requirement, such as data centers bringing a percentage of their own clean power generation, having a power purchase agreement (PPA) for new clean power capacity, or making contributions to grid capacity or transmission. The incentive could be tiered, offering a longer or more generous incentive for meeting higher clean energy requirements."*

*In addition, by requiring data centers to bring their own clean energy capacity, Bullet Two also aimed to address reliability and affordability concerns with the growth of data centers.*

*If data center tax incentives continue to be provided by the State, Bullet Two's recommendation could be an important improvement. The specific details of the recommendation would matter in fully assessing the recommendation (e.g., the percent of clean energy and by when as well as the extent of the tax incentive). In addition it is important to ensure the demand to supply clean energy to data centers does not circumvent tribal sovereignty and community priorities or outstrip grid improvements that should benefit all as the state strives to meet its clean energy goals. But the thrusts of the recommendation - requiring data centers use clean energy as well as bringing some or all of their own clean energy are important concepts that should be included in any regulatory and/or incentive structure around data centers in Washington moving forward.*

*Washington has strong climate and clean energy policies that already require clean energy. Washington's electricity is required to be 80 percent clean (and carbon neutral) by 2030 under the Clean Energy Transformation Act and zero carbon by 2045. As a result, all data centers in Washington will ultimately need to be fully powered by clean energy. The question is how quickly. And that question is key.*

*The sooner data centers are powered by clean energy, the more chance Washington will have to meet its climate and clean energy commitments. Data centers consume large amounts of power. If that power is not clean from the jump, it will be much harder to achieve the state's climate and clean energy commitments over the medium and long term.*

*In addition to using clean energy, the concept in the recommendation of data centers bringing some or all of their own clean energy capacity is important. Data centers bringing their own clean power can help alleviate grid constraints in the near and long-term and help ensure ratepayers are not paying the costs to serve data centers (although not a complete solve for either one, and more actions would be needed – some of which are included in the Workgroup recommendations).*

*Many companies building data centers already have ambitious voluntary clean energy goals. For example, Microsoft has a goal of being carbon negative by 2030. In setting that goal, Microsoft explained[1]:*

> *"While the world will need to reach net zero, those of us who can afford to move faster and go further should do so."*

*We couldn't agree more. Companies who are building data centers or procuring data center capacity can and should move faster and go further. Requirements and/or incentives like Bullet Two in unsuccessful Recommendation #5 are consistent with these efforts.*

*With data centers expected to grow at a rapid rate, and the fastest growth projected over the next couple of years, it is critical that the concepts above are addressed through regulation and/or legislation quickly.*

[1] https://blogs.microsoft.com/blog/2020/01/16/microsoft-will-be-carbon-negative-by-2030/

# Appendix B: Other Feedback

Of the slate of nine draft recommendations put before the Workgroup for consideration, Draft Recommendation #5 was the only recommendation that did not pass on a vote of 11-12. Several workgroup members provided comments on this Draft Recommendation, which we are including below.

Here is Draft Recommendation #5 as it appeared before the Workgroup:

5. **Provide for geographic equity and new clean energy requirements within the data center sales and use tax exemption.**
    - Modify the data center sales and use tax exemption to:
        - Expand eligibility to all counties and align the requirements for the rural and urban exemption into one statewide tax incentive. Currently, Thurston, Kitsap, Whatcom, Clark, Benton, and Spokane County cannot qualify.
        - Add a requirement to the tax incentive related to new clean energy capacity. There would be a variety of pathways for compliance with this requirement, such as data centers bringing a percentage of their own clean power generation, having a power purchase agreement (PPA) for new clean power capacity, or making contributions to grid capacity or transmission. The incentive could be tiered, offering a longer or more generous incentive for meeting higher clean energy requirements.

Several members expressed support for expanding the tax preference to all counties while expressing opposition to the new clean energy capacity requirement. Conversely, several members expressed support for adding a new clean energy requirement to the data center tax incentives while opposing any expansion of the data center tax preferences. At least one member expressed opposition to Recommendation #5 as they opposed expanding the tax preferences alone and felt there was insufficient detail with the new clean energy requirement proposal to support the recommendation.

Below are the comments received regarding Draft Recommendation 5:

**Diane Butorac, Department of Ecology**

Ecology supported the recommendation to tie clean energy development to tax incentives in Washington. Data centers could help move the clean energy transition forward in Washington through new renewable energy development and innovative solutions. There is value in ensuring existing clean energy policies are implemented effectively and in considering how to additionally incentivize renewable energy development. Data center developers could support the clean energy transition in multiple ways, such as bringing their own clean power generation, through a power purchase agreement for new clean power capacity or making contributions to improve grid capacity or transmission. Data centers have

contributed to developing clean energy as part of the grid or behind the meter, however, we are concerned with the multiple current proposals in Washington that only consider fossil fuel options and dependence on unproven technologies for the future.

**Zachariah Baker, NW Energy Coalition**
**Cameron Steinback, Front and Centered**
**Justin Allegro, The Nature Conservancy**

Our organizations feel strongly that data centers must be powered by clean energy. The State's data center tax incentives don't currently require use of clean energy. Bullet Two of unsuccessful Recommendation #5 recommended changing that:

> *"Add a requirement to the tax incentive related to new clean energy capacity. There would be a variety of pathways for compliance with this requirement, such as data centers bringing a percentage of their own clean power generation, having a power purchase agreement (PPA) for new clean power capacity, or making contributions to grid capacity or transmission. The incentive could be tiered, offering a longer or more generous incentive for meeting higher clean energy requirements."*

In addition, by requiring data centers to bring their own clean energy capacity, Bullet Two also aimed to address reliability and affordability concerns with the growth of data centers.

If data center tax incentives continue to be provided by the State, Bullet Two's recommendation could be an important improvement. The specific details of the recommendation would matter in fully assessing the recommendation (e.g., the percent of clean energy and by when as well as the extent of the tax incentive). In addition, it is important to ensure the demand to supply clean energy to data centers does not circumvent tribal sovereignty and community priorities or outstrip grid improvements that should benefit all as the state strives to meet its clean energy goals. But the thrusts of the recommendation - requiring data centers use clean energy as well as bringing some or all of their own clean energy are important concepts that should be included in any regulatory and/or incentive structure around data centers in Washington moving forward.

Washington has strong climate and clean energy policies that already require clean energy. Washington's electricity is required to be 80 percent clean (and carbon neutral) by 2030 under the Clean Energy Transformation Act and zero carbon by 2045. As a result, all data centers in Washington will

ultimately need to be fully powered by clean energy. The question is how quickly. And that question is key.

The sooner data centers are powered by clean energy, the more chance Washington will have to meet its climate and clean energy commitments. Data centers consume large amounts of power. If that power is not clean from the jump, it will be much harder to achieve the state's climate and clean energy commitments over the medium and long term.

In addition to using clean energy, the concept in the recommendation of data centers bringing some or all of their own clean energy capacity is important. Data centers bringing their own clean power can help alleviate grid constraints in the near and long-term and help ensure ratepayers are not paying the costs to serve data centers (although not a complete solve for either one, and more actions would be needed – some of which are included in the Workgroup recommendations).

Many companies building data centers already have ambitious voluntary clean energy goals. For example, Microsoft has a goal of being carbon negative by 2030. In setting that goal, Microsoft explained[20]:

> *"While the world will need to reach net zero, those of us who can afford to move faster and go further should do so."*

We couldn't agree more. Companies who are building data centers or procuring data center capacity can and should move faster and go further. Requirements and/or incentives like Bullet Two in unsuccessful Recommendation #5 are consistent with these efforts.

With data centers expected to grow at a rapid rate, and the fastest growth projected over the next couple of years, it is critical that the concepts above are addressed through regulation and/or legislation quickly.

# Appendix C: Rosters of Subgroups

**Tax Revenue and Economic Development Subgroup Members**

- Beau Perschbacher, Commerce & Economic Development Policy Advisor, Office of the Governor
- David Duvall, Senior Tax Policy Coordinator, Department of Revenue (Chair, Tax Revenue & Economic Development Subgroup)
- Keith Swenson, Deputy Assistant Director, OEDC, Department of Commerce
- Zachariah Baker, Regional and State Policy Director, NW Energy Coalition
- Ryan Beebout, Vice President, Sabey Data Centers - West
- April Berg, Representative, 44th Legislative District
- Glenn Blackmon, Energy Policy Director, Department of Commerce
- Matt Boehnke, Senator, 8th Legislative District
- Andreas Bohman, UW Vice President for Information Technology and Chief Information Officer, University of Washington
- Cassie Bordelon, Executive Director, Climate Jobs Washington
- Dan Diorio, Senior Director, State Policy, Data Center Coalition
- Latisha Hill, Vice President of Community Affairs & Chief Customer Officer, Avista Corporation
- Bill Kehoe, Director & Washington State Chief Information Officer, Washington Technology Solutions
- Heather Kurtenbach, Executive Secretary, Washington State Building and Construction Trades Council
- Brant Mayo, Executive Director, Grant County Economic Development
- Megan Schrader, Director of State and Local Public Policy, Amazon Web Services
- Edward Sheets, Senior Adviser & Consultant on Regional Energy, Yakama Nation (Alternate)
- Sharon Shewmake, Senator, 42nd Legislative District
- Kate Valdez, Environmental Coordinator, Yakama Nation Fisheries
- Seth Worley, Director of Government Affairs, UA Local 598
- Alex Ybarra, Representative, Washington State House of Representatives

**Energy & Resource Impacts Subgroup**

- Kate Brouns, Climate & Energy Policy Advisor, Office of the Governor
- Glenn Blackmon, Energy Policy Director, Department of Commerce (Chair, Energy & Resource Impacts Subgroup)
- Justin Allegro, Policy Director, The Nature Conservancy
- Zachariah Baker, Regional and State Policy Director, NW Energy Coalition
- Ryan Beebout, Vice President, Sabey Data Centers - West
- April Berg, Representative, 44th Legislative District
- Matt Boehnke, Senator, 8th Legislative District
- Cassie Bordelon, Executive Director, Climate Jobs Washington
- Diane Butorac, Clean Energy Coordination Section Manager, Department of Ecology
- Dan Diorio, Senior Director, State Policy, Data Center Coalition
- Mendy Droke, Director, State and Regional Affairs, Pacific Northwest National Laboratory
- David Duvall, Senior Tax Policy Coordinator, Department of Revenue
- Matthew Hepner, Executive Director of the Certified Electrical Workers of Washington & Councilmember, IBEW & City of East Wenatchee Councilmember
- Latisha Hill, Vice President of Community Affairs & Chief Customer Officer, Avista Corporation
- Kirk Hudson, General Manager, Chelan Public Utility District
- Josh Jacobs, Clean Energy Strategy & Planning Vice President, Puget Sound Energy
- Bill Kehoe, Director & Washington State Chief Information Officer, Washington Technology Solutions
- Heather Kurtenbach, Executive Secretary, Washington State Building and Construction Trades Council
- Casey MacLean, Washington Policy Manager, Renewable Northwest
- Brant Mayo, Executive Director, Grant County Economic Development
- Matthew Fox, Senior Director of Government Affairs, Microsoft[21]
- Brian Rybarik, Chair, Washington Utilities and Transportation Commission
- Megan Schrader, Director of State and Local Public Policy, Amazon Web Services

- Edward Sheets, Senior Advisor & Consultant on Regional Energy, Yakama Nation (Alternate)
- Sharon Shewmake, Senator, 42nd Legislative District
- Cameron Steinback, Climate Justice Program Manager, Front and Centered
- Kate Valdez, Environmental Coordinator, Yakama Nation Fisheries
- Andy Wendell, Senior Power Manager of Large Power Solutions, Grant County Public Utility District
- Seth Worley, Director of Government Affairs, UA Local 598
- Alex Ybarra, Representative, Washington State House of Representatives

# Appendix D: Report from Yakama Nation

Confederated Tribes and Bands
of the Yakama Nation

Established by the
Treaty of June 9, 1855

November 10, 2025

Governor Bob Ferguson
426 Sid Snyder Ave SW
Olympia, WA 98501

Dear Governor Ferguson

The Yakama Nation is providing findings and recommendations on date center development in the state of Washington. This report is based on our participation on your Data Center Workgroup established pursuant to Executive Order 25-05 to provide recommendations on these important issues.

We want to thank you for convening the workgroup. We also want to thank the state staff for their extraordinary efforts to facilitate a complex set of issues on a tight schedule.

The recommendations that secured a majority vote address maintaining the integrity of Washington's climate laws; strengthening ratepayer protections; incentives for load flexibility and energy efficiency; protecting community, tribal, and environmental resources; improving resource forecasting; enhancing transmission capacity; siting and permitting of transmission and clean energy generation; and accelerating existing and emerging technologies to provide clean energy.

While this was a significant accomplishment, the Workgroup recommendations are general and did not address several of our key concerns. The Yakama Nation was the only sovereign on the Workgroup. We are providing our own findings and recommendations to the State of Washington on issues that are essential to protect our resources and culture.

The Yakama Nation has proposed 36 recommendations that address conditions for new data centers and actions to: 1) protect salmon and other tribal resources; 2) meet the region's energy needs; 3) promote clean energy; 4) improve transmission and energy siting, 5) protect water supplies for salmon and municipal water systems; and 6) shield consumers from higher electricity costs. Without actions by the governor and legislature, the Yakama Nation's treaty-protected resources face grave risks. We look forward to working with you and the legislature on these important issues.

Sincerely,

Gerald Lewis

Gerald Lewis
Chair, Yakama Tribal Council

cc:

Cc:
Beau Perschbacher, Commerce & Economic Development Policy Advisor, Office of the Governor
Kate Brouns, Climate & Energy Policy Advisor, Office of the Governor
Brian Rybarik, Chair, Utilities and Transportation Commission
Bill Kehoe, Director and Washington State Chief information Officer, Washington Technology Solutions Glenn Blackmon, Energy Policy Director, Department of Commerce
Keith Swenson Deputy Assistant Director, OEDC, Department of Commerce
Diane Butorac, Clean Energy Coordination Section Manager, Department of Ecology David Duvall, Senior Tax Policy Coordinator, Department of Revenue
Andreas Bohman, UW Vice President for Information Technology and Chief information Officer

# The Yakama Nation Data Center Findings and Recommendations to the Washington Governor and Legislature

## A Report Based on Participation on the Washington Date Center Workgroup

**November 10, 2025**

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# Findings and Recommendations on Data Centers

## Executive Summary

### *Key Issues*

The development of more data centers in Washington will create winners and losers.

The winners will be the data and artificial intelligence companies that profit from the new facilities; local and state governments that receive higher tax revenues; and construction workers that build the data centers.

There are also likely to be losers. Other businesses and consumers face risks of power blackouts and higher electricity bills; and current salmon protections are suspended during these emergencies and more migrating salmon will be killed. Additional resources and transmission lines to serve the data centers will damage tribal resources, and efforts to rebuild salmon and steelhead populations will be harder to accomplish. Water supplies for fish and wildlife and municipal systems could be affected. There may be more methane-gas power plants built and more pressure to weaken Washington's clean energy laws to reduce greenhouse gases.

The Yakama Nation signed a treaty with the United States in 1855 and reserved the rights to the salmon and other resources that have sustained our people since time immemorial. Without actions by the governor and legislature, those treaty-protected resources face grave risks.

We commend Governor Ferguson and state staff for convening the Data Center Workgroup to provide recommendations to the governor and legislature on these important issues. Given the diverse composition of the workgroup, it was difficult to get a agreement on some of controversial issues that were addressed. For example, the Yakama Nation and data center companies often took different positions on issues. We know that many of these companies are committed to protecting the environment, and we look forward to finding common ground to protect our treaty-protected salmon and other tribal resources.

The recommendations that secured a majority vote address maintaining the integrity of Washington's climate laws; strengthening ratepayer protections; incentives for load flexibility and energy efficiency; protecting community, tribal, and environmental resources; improving resource forecasting; enhancing transmission capacity; siting and permitting of transmission and clean energy generation; and accelerating existing and emerging technologies to provide clean energy.

While this was a significant accomplishment, the Workgroup recommendations are general and did not address a key concern regarding ensuring the reliability of the electric power system. The Yakama Nation was the only sovereign on the Workgroup. We are providing our own findings and recommendations to the State of Washington on issues that are essential to protect the Yakama Nation's resources and culture. We have summarized the key issues and recommendations in this executive summary and provided more details in the report.

**Electric energy supply and reliability**: The Pacific Northwest is facing major increases in electricity growth to serve new data centers and meet the decarbonization goals to reduce greenhouse gas emissions. Data centers could require the addition of new electricity equal to two to four cities the size of Seattle by 2029. If these data centers use conventional cooling, they could increase peak loads by 3,400 to 6,000 megawatts over the next five years. It is not realistic to assume that the region can add this much power, and a large electricity deficit is projected nationwide so market power may not be available, reliable, or affordable.

The Northwest Power and Conservation Council's most recent Electricity Adequacy Report says that the risk of annual blackouts increases from 5 percent to more than 13 percent if the region experiences the growth in data centers that utilities and the data center industry are projecting.

**More migrating salmon will be killed**: during these power emergencies, salmon protections, which include spilling the migrating fish over the dams, are suspended and salmon must go through the turbines. Higher loads will also put more pressure to ramp up the output from hydroelectric dams; these large fluctuations in river flows kill migrating salmon as they are delayed in the reservoirs and eaten by warm-water predators like Walleye.

**Increased electricity costs**: building the new resources and transmission to serve data centers will cost billions of dollars. Power developed to serve data centers over the next few years will likely utilize the most developable sites and the lowest-cost transmission upgrades. This could increase the costs for the remaining resources and transmission to meet other needs. Data centers may also be willing to pay a premium for power; this could increase the costs of market power and other new resources. These added costs could increase consumer utility bills without changes to ensure that the data centers pay all the additional costs they cause.

**More pressure to weaken Washington's clean energy laws**: it will be challenging to meet the near-term energy demands of data centers with renewable energy, energy efficiency, and storage. This will create more pressure to run existing coal-fired power plants and add additional methane gas-fired power plants. The Washington Department of Ecology has received applications to supply data centers with fossil-fueled plants.

**Barriers to implementing the Columbia Basin Restoration Initiative**: the CBRI was adopted in 2023 by the Yakama Nation, the State of Washington, and four other sovereign governments[1]. It provides a framework for a durable long-term strategy that restores salmon and other native fish populations to healthy and abundant levels, ensures a clean energy future, supports local and

[1] The CBRI was adopted by the Yakama Nation, Confederated Tribes of the Umatilla Reservation, Confederated Tribes of the Warm Springs Reservation, Nez Perce Tribe, State of Oregon, and State of Washington.

regional economic resilience, restores ecosystem functions and honors the longstanding commitments to Tribal Nations. These objectives will be more difficult to achieve without coordinated efforts by state and tribal governments to address the challenges posed by data centers.

**Damage to treaty-protected resources**: Meeting the data center loads risks additional harm to the tribal treaty-protected salmon and steelhead that are especially important to the tribal people that have been sustained by these resources since time immemorial. Additional resources and transmission could damage other tribal resources such as First Foods and cultural sites. The load growth also threatens the reliability of the Northwest power system, the implementation of the Columbia Basin Restoration Initiative, and additional costs for tribal and other consumers.

The development of hydroelectric dams, fossil-fuel generators, and transmission lines during the last 100 years have damaged tribal treaty-protected resources, including the loss of over 80% of the salmon and steelhead runs. It is critical that the next phase of regional energy development protects the tribes' treaty resources and rebuilds salmon and steelhead populations. Our recommendations highlight the importance of requiring consultation with tribes on energy and transmission siting.

**Effects on water supplies**: data center water use poses significant localized water quantity and quality impacts that could affect fish and wildlife and municipal water supplies. Water should not be allocated to data centers without analyzing the impacts to watershed conditions, including stream flows for fish, temperature, and pollution.

## *Summary of Recommendations*

To address these challenges, we are recommending actions by the governor and legislator. A summary is provided here and there are more details in the report.

- Ensure that there are adequate electricity supplies before data centers begin operation. Data center operators and utilities need to demonstrate that there is no degradation in grid reliability or impacts on salmon protection measures.
- Ensure that the resources built for data center meet the state clean energy laws and schedules for reducing greenhouse gases.
- Protect water quality and quantity for fish and wildlife and other existing water users.
- Develop energy efficiency standards to reduce data center energy and peak loads.
- Develop programs to manage data center loads, including storage, on-site resources, and demand management.
- Work with the state of Oregon and the region's tribes to develop a comprehensive plan for locating new electricity resources and transmission facilities while protecting tribal resources.
- Ensure that laws and regulations are in place to require data centers to pay their full costs and protect other consumers from stranded costs.

We also identify additional studies and reporting requirements that will help the state of Washington make future changes as new information on the effects of data centers is available.

We are aware that several tribes, including the Yakama Nation, are evaluating the feasibility, costs, and benefits of data centers on tribal lands. We believe the conditions in this report are essential for protecting tribal resources.

## State Tax Incentives

A major focus of the workgroup was whether the current tax incentives should continue, be expanded, or be conditioned on other policy objectives. The Workgroup did not have majority support for any of these actions.

The Yakama Nation has raised significant questions about whether the state tax incentives for data centers are in the public interest and whether they should be continued. We provided information that questions the need for the incentive because they are not a major factor in selecting the location of new facilities, and the data centers are very profitable. We sought independent analysis on the permanent jobs that are created and how the tax incentives per job compare to incentives for other industries. We also requested analysis of the impacts on electricity costs, Washington's clean energy goals, and water supplies. Unfortunately, state staff did not have the resources to address these important questions.

We do know that without the conditions summarized above, these incentives are clearly not in the interest of protecting our resources or tribal members. Until we receive credible information that addresses the issues we have raised, the Yakama Nation opposes the continuation of the tax incentives because we have not seen independent information that they are needed and in the public interest. Continuation of tax incentives would subsidize actions that will damage tribal resources. Any continuation of the tax incentives must be conditioned on data centers meeting the conditions in this report, including protections for: 1) the reliability of the electricity system, 2) salmon and other tribal resources, 3) Washington's clean energy laws, 4) water quality and quantity, and 5) consumers.

The Seattle Times recently reported that Washington has spent $1 billion on tax incentives for technology companies, but there is no way to determine the benefits. If the legislature continues data center tax incentives, it should set clear goals and objectives and direct state agencies to collect and analyze the information needed and regularly review the incentives to ensure they achieve those goals.

## Conclusions

The Yakama Nation has proposed 36 recommendations that address conditions for new data centers and actions to: 1) protect salmon and other tribal resources; 2) meet the region's energy needs; 3) promote clean energy; 4) improve transmission and energy siting, 5) protect water supplies for salmon and municipal water systems; and 6) shield consumers from higher electricity costs. We look forward to working with the governor and legislature on these important issues.

# Yakama Nation Findings and Recommendations

## Introduction

The Pacific Northwest is facing major increases in electricity demand from data centers that may exceed the electricity supplies that are available. These new loads will be in addition to other electricity growth as the Northwest increases electrification to meet state laws to limit greenhouse gas emissions. Meeting these new data center loads increases the risk of additional harm to the tribal treaty-protected fisheries, including salmon, steelhead, and Pacific lamprey. These fish resources are especially important to the tribal people that have been sustained by these resources since time immemorial. The additional resources and transmission lines needed to serve these loads will also damage tribal resources that are essential for First Foods and the protection of our cultural heritage.

These higher loads could also make it more difficult to implement the Columbia Basin Restoration Initiative that was adopted in 2023 by the Yakama Nation, the Confederated Tribes of the Umatilla Reservation, the Confederated Tribes of the Warm Springs Reservation, the Nez Perce Tribe, the State of Oregon, and the State of Washington.

This document provides findings and recommendations by the Yakama Nation to the governor and legislature. They are based on the Columbia Basin Restoration Initiative, analysis by the Yakama Nation, results from a study by PAE Engineering on Energy and Water Use Impacts of Building System Design for Data Centers (https://critfc.org/documents/energy-water-use-impacts-of-building-system-design-for-data-centers/), and the Columbia River Inter-Tribal Fish Commission Energy Vision for the Columbia River Basin (www.critfc.org/energy-vision).

### *Data Center Impacts on Tribal Resources*

In 1855, the United States signed treaties with four Columbia River basin tribes: the Yakama Nation, the Nez Perce Tribe, the Confederated Tribes of the Umatilla Indian Reservation and the Confederated Tribes of Warm Springs Reservation of Oregon[2]. In those treaties, the four tribes reserved their rights to tribal resources, including the salmon that are critical to tribal communities. Federal courts have consistently upheld the obligations to honor the treaties. The scale of fish losses since treaty signing is staggering: the Northwest Power and Conservation Council estimates that 10 to 16 million salmon and steelhead returned annually to the Columbia Basin when the treaties were signed[3], while current annual runs are approximately 2 million. The hydroelectric system alone is responsible for 5 to 11 million the annual fish losses[4].

Tribes have borne the brunt of energy development throughout the basin. Dam construction decimated salmon and steelhead runs and severely impacted other treaty fisheries such as lamprey and sturgeon. The salmon losses have damaged tribal economies and culture. These communities continue to experience higher unemployment and worse health outcomes than non-

[2] The Columbia River Inter-Tribal Fish Commission (CRITFC) was created to help protect these rights and serves as a technical support agency for these Treaty Tribes.
[3] Northwest Power and Conservation Council, *1987 Columbia River Fish and Wildlife Program*.
[4] Ibid.

tribal communities. Additional data center electricity loads threaten to exacerbate hydropower's existing detrimental impacts on anadromous fish species and other tribal fishery resources. Dam passage kills salmon and steelhead, while daily reservoir fluctuations slow salmon migration and increase exposure to high water temperatures and predators. These impacts affect not only salmon and steelhead but also sturgeon, and other species critical to tribal communities.

State and tribal anadromous fish managers have developed detailed measures to increase spills at the dams and increase travel time through the reservoirs that must be part of any future energy development.

Data centers impacts need to be analyzed through federal and state environmental justice principles that require addressing energy development impacts on overburdened communities, including tribal communities. It is important that the next phase of regional energy and grid development both protect the tribes' treaty resources and actively works to rebuild the fish populations that remain vital to tribal communities. This requires comprehensive planning that considers not just the data centers themselves, but the entire energy and transmission infrastructure needed to serve them.

## *Data Center Effects on the Columbia Basin Restoration Initiative*

The CBRI provides a framework for a durable long-term strategy that restores salmon and other native fish populations to healthy and abundant levels, ensures a clean energy future, supports local and regional economic resilience, restores ecosystem functions and honors the longstanding commitments to Tribal Nations. Those objectives include:

1. ***Interim operation to improve the survival of migrating salmon***. High date center loads would reduce the reliability of the power system and increase the chance that fish operations will be interrupted.

2. ***Enhanced fish protection operations***. Higher loads will make it more difficult to implement those improvements.

3. ***Improve salmon and steelhead habitat***. The energy resources and transmission needed to serve data centers will affect land and water resources.

4. ***Meet Oregon and Washington greenhouse gas objectives***. The CBRI calls for meeting decarbonization goals, deliver “affordable and clean power”, and resiliency and adaptability to climate change. Any reductions in electricity adequacy will increase pressure to operate existing coal and methane-fired power plants.

5. ***Ensure continuity of services from the Lower Snake River dams***. projected electricity shortages could add to the time it would take to replace the energy services of these dams. Current output from the four dams is about 700 average megawatts; data center load growth is projected to range between 2,400 to 4,000 average megawatts by 2029.

6. ***Support communities and economic sectors***. Electricity shortages, brownouts, or blackouts and higher electricity costs would damage communities and other businesses.

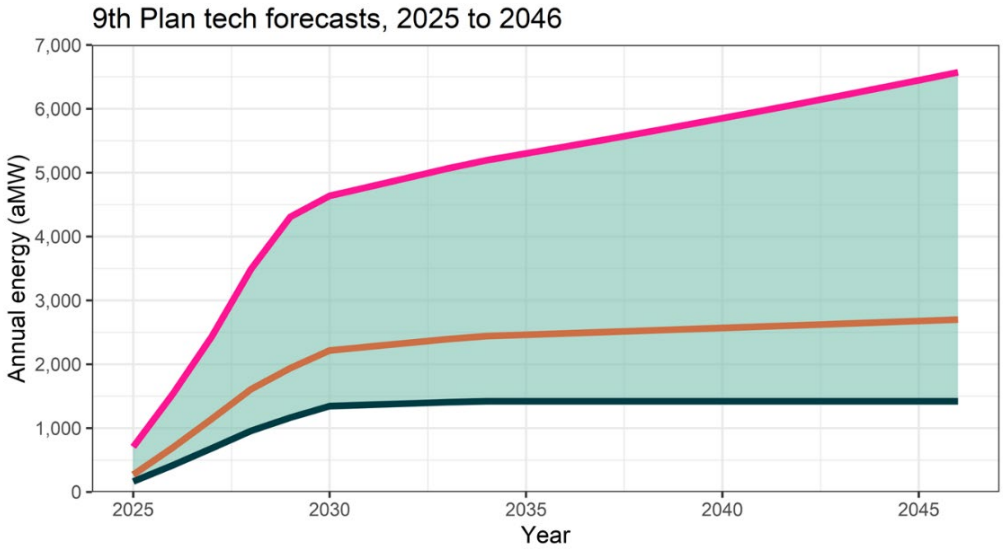
The Yakama Nation has proposed detailed findings and recommendations to the governor and legislature. The 36 recommendations address conditions for new data centers and actions to 1) meet the region's energy needs; 2) protect salmon and other tribal resources; 3) improve transmission and energy siting, 4) protect water supplies for salmon and municipal water systems; and 5) shield consumers from higher electricity costs. We look forward to working with the governor and legislature on these important issues.

# Electric Energy

## *Findings*

### Data Center Will Add to Electricity Loads

The data center energy needs are likely to be significant. The Northwest Power and Conservation Council recently updated its electricity load estimates for data centers and chip fabrication[5]. It shows that if recent trends continue (including recently announced projects), these projects could increase the region's electricity demand by about 2,400 average megawatts by 2029. The Council also developed a high growth scenario (based on utility and BPA projections) that shows demand could increase by about 4,000 average megawatts by 2029 and 6,500 by 2046.




The **purple** high forecast through 2030 reflects utility and BPA growth expectations; the **brown** mid forecast is a continuation of recent trends; the **green** low forecast through 2030 has a slowing of recent trends. Post 2030 growth is at a fixed rate depending on the forecast.

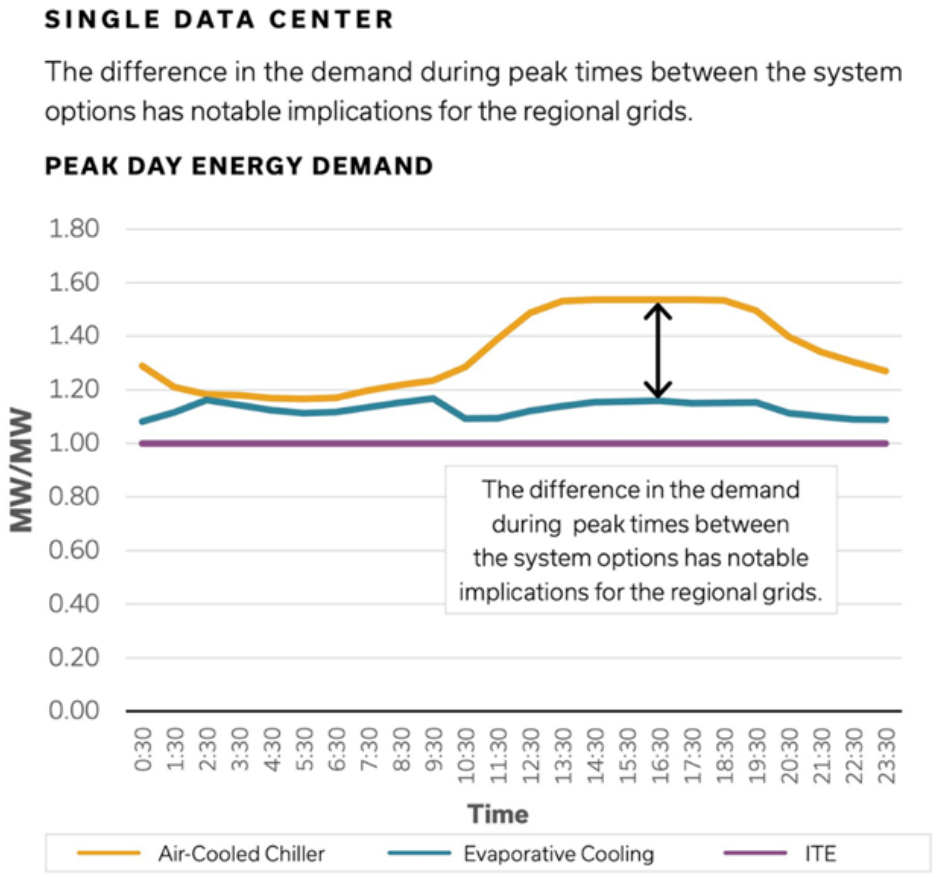
For comparison, at the medium estimate, the projected electricity use would be equivalent to adding the power used by two cities the size of Seattle during the next four years. At the high end of the range, the electricity use by 2029 would be similar to adding about four cities the size of Seattle.

[5] Northwest Power and Conservation Council, May 16, 2025.

## Data centers Will Add to Peak Loads.

The PAE Study[6] identified significant peak load increases associated with data centers using conventional air-cooling systems (see below and on page 10 of the report for more details). This will be a significant challenge for the energy system. Meeting peak loads will be more expensive and stress the power system.

The chart below shows the load profile for a single data center under two technologies. The blue line uses evaporative cooling and has a relatively constant energy use with cooling loads adding about 10 to 20 percent to the computer processing load. The gold line shows the best-available air-cooling systems. These cooling loads also add about 20 percent during parts of the day, but when temperatures increase, the addition energy use for cooling adds a peak of about 55 percent above the processer loads. If this load shape is typical for 1,000 megawatts of data center load, the peak load would be about 1,550 megawatts.




Without electricity efficiency standards to reduce peak loads and clear price signals about the cost of electricity during different times of the day, the data center peak loads will adversely affect the electric power system and migrating salmon.

In the past, peak loads were served by ramping up the output from hydroelectric dams. Today, the use of dams to meet peak loads and to integrate renewable intermittent energy has

[6] https://critfc.org/documents/energy-water-use-impacts-of-building-system-design-for-data-centers/

dramatically increased the flow fluctuations in reservoirs and between dams, resulting in increased mortality for salmon migrating through the Columbia and Snake rivers. The Washington, Oregon, and tribal fish managers[7] have recommended changes in dam operations to increase water spilled over the dams to help juvenile salmon avoid being swept into the power turbines at the dams and lower reservoir elevation levels to help speed the journey of juvenile fish through slow moving reservoirs on their way to the ocean. These changes would also limit the daily river fluctuations.

## Data Centers Will Reduce Electricity Reliability

Resource availability and adequacy are major issues. Meeting the data center energy needs, along with electrification of other sectors of the economy, will require significant growth in energy efficiency programs, renewable resources, demand management, and energy storage.

It is not realistic to assume that the region can add 2,000 to 4,000 average megawatts, 3,000 to 6,000 megawatts of peak, and the associated transmission system upgrades in the next five years as needed to meet the projected data center loads. Adding these large data center loads will affect the reliability of the electricity system and likely force a serving utility to increase its reliance on purchases of market power – an unreliable and price volatile resource. Nationwide, the projected electricity deficit to serve data center loads is 45,000 megawatts through 2028[8]. Market resources of this magnitude, if even available, will likely be very expensive.

The Northwest Power and Conservation Council (NPCC) updated its reliability analysis in August 2024[9]. It concluded "should data center load growth accelerate and exceed current trends to match high-end trajectories of utility projections by 2029, the resource strategy will also be insufficient to maintain adequacy as the Higher Data Center scenario violated all adequacy metrics… Shortfall risk is heightened in both winter and summer; Significant increases in duration, peak, and especially energy metrics in major winter shortfalls" (page 26). The Council seta a limit of 5 percent annual loss-of-load probability (LOLP) metric to measure resource adequacy. Under the high data center scenario, the LOLP is 13.3%[10].

An imbalance between a system's loads and its electric resources increases the frequency and duration of outages, such as brownouts and blackouts that can hurt all consumers. When such power emergencies occur, salmon protections are shut off. That means that dam operators stop spilling water over the dams for migrating salmon and the fish have to pass through the powerhouse turbines.

## Challenges for Meeting Future Electricity Needs

Adding 2,000 to 4,000 megawatts of new electric energy resources and the transmission to deliver the power in the next four or five years would be unprecedented. This level of development would also adversely affect tribal resources throughout the state. This section summarizes the costs of alternative resources and challenges in accelerating their development.

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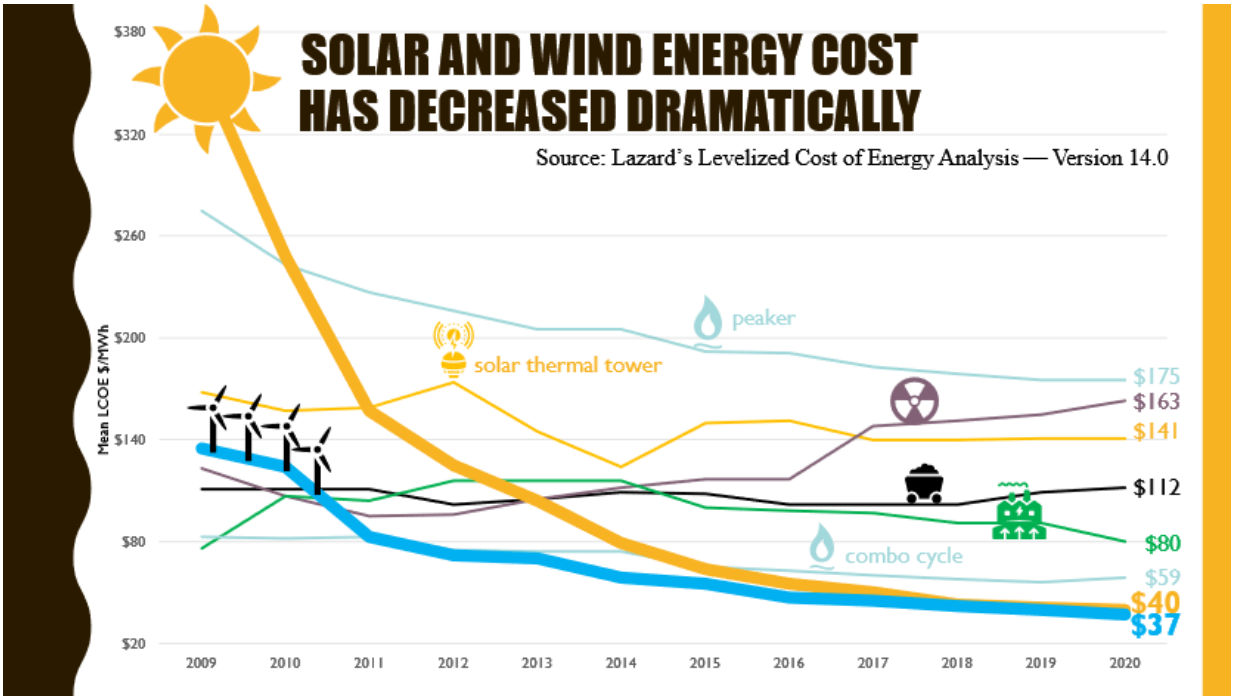
[7] Confederated Tribes and Bands of the Yakama Nation, Nez Perce Tribe, Confederated Tribes of the Umatilla Indian Reservation, and Confederated Tribes of the Warm Springs Reservation of Oregon.
[8] Morgan Stanley Research, Global Data Center Capacity Growth to Increase 6x, page 44, July 15, 2025
[9] https://www.nwcouncil.org/reports/2024-4/
[10] https://www.nwcouncil.org/reports/2024-4/, page 28. See more details in Appendix.

Costs: To develop adequate resources and ensure the reliability of the power system, the 2022 Columbia River Inter-Tribal Fish Commission's Energy Vision for the Columbia Basin energy resources recommendations were based on an analysis of alternative energy costs using data from the Lazard investment bank. Lazard publishes a yearly summary of generation costs. Their summary uses actual transaction data – not estimates – and is commonly viewed as authoritative. The chart below shows costs per megawatt hour ($/MWh). Solar and wind projects were the lowest costs at $37 and $40 per megawatt hour; combined cycle plants fueled by methane gas cost $59 per megawatt hour; geothermal power cost $80 per megawatt; all the other alternatives cost more than $110 per megawatt. The Lazard data shows the solar and wind energy costs have decreased dramatically and are lower than other generating alternatives. Energy efficiency programs were not reported by Lazard, but have lower costs than generating resources, provide energy and peak reductions, and do not require transmission or distribution upgrades.




There are significant challenges for each of these technologies:

Energy efficiency: There is potential to increase these programs, but it would require more funding by BPA and individual utilities.

Renewable resources: The recently enacted federal reconciliation law phased out the production tax credits that have been driving the recent increase in renewable resources. The loss of these credits is likely to slow wind and solar power development and increase costs. The current administration is also imposing barriers to solar and wind projects.

Demand management: The region has limited experience with these programs and would need to increase staffing and funding.

Storage: The costs of storage have declined significantly. California has added 7,000 megawatts of storage in the last few years. Storage will require significant investment and integration in grid planning.

Conventional methane gas and coal-fired power plants: These plants are more expensive and generate greenhouses gases and other emissions. Lead times for delivery of new gas turbines range from three[11] to seven years[12]. State laws in Oregon and Washington set firm limits to reduce and ultimately eliminate these resources.

Small modular nuclear reactors: The industry has been promising this technology for more than 40 years. There are no SMRs operating in the United States. Only China and Russia have successfully built operational SMRs. There are potential projects being discussed in the United States, but it is unlikely that this technology will be commercially available anytime soon. SMR plants will be more expensive than the sources described above.

## Data Center Energy Efficiency

**Energy efficiency could reduce data center electricity demand.** The amount of electricity needed will depend on the efficiency of the cooling systems. There is significant potential to reduce energy and peak load electricity use; this could reduce the range of energy needs. The PAE study on the potential for efficiency improvements found:

- There is a big difference between the ASHRAE national standard for data center and the best practice technologies for building cooling systems.
    - The potential savings are equivalent to 2 million to 4 million megawatt hours.
    - These savings are only from building system improvements without any reduction in data center processor quantity.

- The study identified a potential for 1,000 megawatts reduction in peak energy savings from best-practices cooling systems:
    - Evaporative cooling systems are 28% more efficient than current standards.
    - Best-practices air-cooled savings are 4% more efficient.
    - Air-cooled compressors have large peak loads, especially during summer afternoons and evenings.
    - Peak loads are expensive to serve, stress the electricity system, and hurt migrating salmon.

- Implementing the energy efficiency and peak power reductions identified in the PAE data center report would provide some of the most significant energy savings available to the region.

Washington's law that provides tax incentives for data centers does not include any requirement that data centers incorporate these energy efficiency measures. Oregon similarly provides tax incentives without energy efficiency requirements. Oregon HB 3409 does impose energy

[11] Reuters: https://www.reuters.com/business/energy/rush-us-gas-plants-drives-up-costs-lead-times-2025-07-21/
[12] S&P Glogal: https://www.spglobal.com/commodity-insights/en/news-research/latest-news/electric-power/052025-us-gas-fired-turbine-wait-times-as-much-as-seven-years-costs-up-sharply

performance standards for commercial buildings, including data centers, but does not require compliance until 2028, at the earliest.

### Data Center Load Uncertainty

There is a great deal of uncertainty about how much electricity data centers will use. There is potential duplication or speculation of data center projects. It is important to improve estimates in order to clarify which of the planned projects are viable.

There appeared to be utility industry support for setting "commercial readiness" standards to get in the energy service queue. This could significantly affect projections. For example, Grant County PUD discussed policy changes on their data center queue that resulted in a reduction in service requests from 3,000 to 2,300 megawatts—a 23 percent reduction.

## *Recommendations*

1. The NPCC should incorporate the anadromous fish managers recommendations on the spill and reservoir operations at the dams into the Columbia Basin Fish and Wildlife Program. The NPCC would then incorporate those operations in the development of the next Pacific Northwest Conservation and Electric Power Plan.

2. The NPCC and federal agencies should adopt the provisions in the Columbia Basin Restoration Initiative adopted in 2023 by the Confederated Tribes and Bands of the Yakama Nation, the Confederated Tribes of the Umatilla Reservation, the Confederated Tribes of the Warm Springs Reservation, the Nez Perce Tribe, the State of Oregon, and the State of Washington

3. To avoid a degradation in the reliability of the electricity system and avoid impacts on salmon and other tribal resources, data centers should demonstrate that they have sufficient reliable energy available before they begin operation. These new energy sources should be based on the recommendations in the Tribal Energy Vision for the Columbia Basin and the CBRI that are described in more detail below.

4. Utilities and regulatory agencies should ensure there are sufficient resources to meet the base and peak energy needs (energy and capacity) before data centers begin construction.

5. BPA and grid operators should assess the reliability risks associated with the growth in data center loads.

6. The Council, BPA, utilities, and state utility regulators and transmission organizations should incorporate the energy reliability recommendations in the CRITFC Energy Vision for the Columbia River Basin into their energy plans. A list of the relevant recommendations is provided is Attachment A.

7. The Council, BPA, utilities, and state utility regulators should incorporate the energy efficiency and development recommendations in the CRITFC Energy Vision for the Columbia River Basin into their energy plans. The recommendations are designed to ensure

that renewable resources in combination with increased storage, reductions in peak demand, and increased energy efficiency can provide clean, adequate, reliable, and affordable electricity, support the restoration of heathy, harvestable salmon populations, and prevent future damage to salmon and steelhead and other tribal resources caused by the electrical system. A list of the relevant recommendations is provided in Attachment A.

8. Data centers should be required to use the most energy efficient processing and cooling technologies commercially available at the time of construction to reduce their energy load and impact on the grid. If evaporative cooling is not feasible, the data center should mitigate energy and peak load impacts using storage or other technologies. The Washington State Energy Office should develop detailed efficiency standards based on the PAE Study recommendations:

    a. Develop a reach code for projects over a certain size that goes beyond the minimum requirements of ASHRAE 90.4 to ensure optimized systems for improved Power Usage Effectiveness (PUE)

    b. Creation and adoption of a Peak-PUE metric to encourage selection of systems with reduced peak demand impacts.

    c. Encouraging innovation in the data center industry for creative water solutions to reduce the overall water impact.

9. Any state tax incentives should be conditioned on achieving the data center energy efficiency actions in recommendation 8 and time-of-use electricity pricing.

10. BPA, federal dam operators, and utilities should avoid any impacts on anadromous species from data center loads.

11. To reduce the uncertainty of data center loads, the Washington State Energy Office should develop standards for commercial readiness to get into the queue for energy services.

12. The Washington State Energy Office should conduct a study at least every two years on the potential for on-site energy generation or storage, load management, and demand response by data centers, including any program or policy changes that may be needed to achieve the potential.

13. Data centers should report annual and monthly energy use, including peak demands, including metrics on efficiency and renewable energy use.

14. Data centers should conduct annual energy audits to identify opportunities for reducing energy consumption, improving efficiency, and minimizing peak loads.

# Transmission and Siting

## *Findings*

### Transmission Access

Transmission access is constraining resource development. For example, Yakama Power is working to develop a utility-scale solar project over the canals of the Wapato Irrigation District and an energy storage system[13]. Yakama Power has not been able to secure commitments for BPA transmission access and BPA has said that Yakama Power would need to build a $130 million substation for the project. The Warm Springs Power & Water Enterprises in Oregon is also pursuing a large solar project and facing barriers to transmission access.

### Need for Comprehensive Energy and Transmission Plan

The CRITFC Energy Vision called for a comprehensive energy siting program that would identify where these facilities could be developed with the least conflict and areas that should not be developed. Tribes are concerned that these facilities will damage tribal cultural, environmental, and fish and wildlife resources.

Any suggestion or recommendation to accelerate or streamline SEPA through categorical exemptions removes a Tribes ability to have meaningful engagement and consultation through the environmental and cultural review process. If categorical exemptions are going to be suggested or recommended, then language regarding engagement and consultation with Tribes needs to be strengthened to "Directed" or "Required". For example, language as recommended within the Interagency Clean Energy Siting Coordination Council offers SEPA categorical exemption incentives for utilities to complete upgrades, however, it recommends engagement with Tribes on such exemptions. As written, it  engagement and consultation is discretionary, when it needs to be "REQUIRED". Furthermore, agencies should be required to consult in a manner that identifies and addresses the Tribe's concerns. This would not only ensure the required engagement with Tribes but would support the intent of recently passed Executive Order 25-10.

The energy and transmission needs of data centers will also affect local communities and grid reliability and these issues need to be addressed.

## *Recommendations*

15. Recommendation 3.6 of the CRITFC Energy Vision says:

> CRITFC and its member tribes should work with state energy and siting agencies, federal agencies, WestTEC, the Northwest Power Pool, and others to develop a timely comprehensive plan for siting renewable resources and transmission lines that builds on efforts currently being developed in the states.

[13] https://aresnorthamerica.com/.

The comprehensive plan should identify where renewable resources should be developed, and where they should not. The plan should provide expeditious siting with clear and uniform standards across all political subdivisions that sites resources near loads and within the grid to relieve congestion, and that protects fish, wildlife, and other environmental values and tribal resources.

The section provides examples of where comprehensive siting has been done successfully.

16. Strategically locating some electricity generation closer to loads, in combination with reducing peak energy demands, will eliminate some of the planned costs and impacts associated with expanding the transmission and distribution system. Utilities should develop interconnection standards that allow for safe operation of local generators. Distributed generation can be deployed to eliminate the need for backup generation and transmission and distribution capacity.

17. Develop distributed generation resources, including fuel cells, net-metered small renewable resources, and small wind farms. Owners of net-metered small renewable resources, including solar photovoltaic applications, should be able to sell power back to the local utility at retail prices. Small wind farms of two to ten machines can be placed strategically within the grid and not necessarily where wind is the greatest, but where the combination of strategic placement and the wind resource yields the highest benefit to the electricity system. This benefit would show up as income to the wind developers and savings in transmission and distribution construction costs.

18. Developing renewable resources next to existing transmission is another siting strategy that could minimize the costs and impacts of adding new resources. For example, Montana wind is well positioned to serve westside load centers while minimizing impacts on river operations. In addition to having the highest capacity factors (40-50 percent), it generates primarily during the winter, so its generation pattern best fits PNW peak load shapes; and it can use over 1,000 megawatts of repurposed Colstrip transmission rather than needing to build new, much more expensive transmission to serve westside loads. Because of these characteristics, Montana should help meet PNW winter capacity needs while also lessening river operation and upland impacts.

19. Reconductoring existing lines should be a priority. This technology is likely to be less expensive and have fewer adverse impacts on land and water resources than new transmission lines.

20. The state should not support or permit transmission projects that directly impact tribal treaty-protected fishery resources and fish habitat. This includes avoiding new transmission infrastructure such as underwater cables that place additional burdens on fish resources already stressed by existing hydropower operations. Transmission planning must prioritize routing that avoids critical fish habitat, spawning areas, and migration corridors. When transmission projects are proposed that could affect treaty fisheries, they must undergo comprehensive environmental review that includes meaningful consultation with affected tribes and demonstrates no net loss to fish populations. Alternative transmission routes and

technologies should be evaluated to ensure that the infrastructure needed to serve data centers does not further compromise the salmon, steelhead, sturgeon, and lamprey populations that are central to tribal treaty rights. The cumulative impacts of transmission projects, combined with existing dam operations and new data center loads, must be assessed to prevent additional degradation of already imperiled fish runs.

21. State and federal environmental laws, and all laws that protect riparian areas, critical areas and historical and cultural areas are necessary statutes to follow and monitor environmental protection. In order for Tribal resources to be protected, these laws must stay in place and not exempt any permit reviews or regulation of activities related to the building out of data centers, data cables, or energy and transmission facilities to serve them. We strongly oppose categorical exclusions because they eliminate meaningful consultation with Tribes.

22. Tribes are the experts on natural resource restoration and protection and must be involved in data center permitting processes, serving as experts on data center impacts to natural resources and how impacts could be avoided. Therefore, it is essential to engage with tribes early and often to address potential impacts on tribal resources. Furthermore, engagement with tribes should be required and guided by Executive Order 25-10.

23. If data centers seek expedited interconnection, they should prepay for necessary grid infrastructure.

24. Data centers should develop community benefit programs to address local impacts.

# Water Use

## *Findings*

### Direct Impacts

Data center water use could be a significant issue, especially in areas with low water supplies or salmon and steelhead listed under the Endangered Species Act. Data center water use poses significant localized impacts that could impact fisheries. Water withdrawal reduces availability for other uses including fish flows, while decreased water volumes reduce cooling capacity and increase heat loading in waterways. Water quality issues arise from discharge, and reliance on municipal systems may not adequately address these concerns. Specific concerns include:

- Thermal Pollution: data centers often return heated water to municipal or natural systems, potentially stressing ecosystems. Higher risk in sensitive or low-flow waterways.
- Water availability: Water availability for data centers is limited by seasonal shortages and over-allocated watersheds, particularly during late summer when additional withdrawals could reduce instream flows below levels necessary for fish survival. Many locations cannot guarantee year-round water availability, and new withdrawals would compound existing stresses on treaty-protected fish populations.
- Chemical Contaminants: Cooling towers may involve biocides, anti-scaling agents, and corrosion inhibitors. Improper discharge can introduce these into receiving waters.

- Destination of Discharge: Could go into municipal wastewater system (possibly requiring pre-treatment) or directly into surface water bodies, depending on permits and infrastructure.
- Stormwater & Spill Risks: Data center sites can generate stormwater runoff and may handle fuels or chemicals (e.g., for generators), creating potential for site contamination. See The Dalles/Google data center.
- Regulations: NPDES in some jurisdictions.

Local water resources are being stressed and this increase given on-site water usage is expected to increase with hyperscale data centers. Climate change and the decline in water, all communities will ultimately have less water to compete over.

### Indirect Impacts

Data centers also have indirect effects on water-- 75% of the water footprint of data centers is offsite associated with fossil-fired electricity generation. The CRITFC study analyzed the water use of data centers and alternatives energy sources to serve them. For more information, please see pages 12 and 13 of the PAE study.

Evaporative cooling systems use more water than air-cooled systems. The total projected use of evaporative cooling is a small percentage of total water use; however, the local effects on salmon and steelhead need to be avoided.

## *Recommendations*

25. No water resources should be allocated to data centers, unless it can be demonstrated that such use would not affect watershed conditions, including stream flows for anadromous species, temperature, and pollution.

26. No water resources should be allocated to data centers, unless it can be demonstrated that such use would not affect local municipal water sources.

27. Water allocation decisions for data centers must account for existing over-allocation, climate change projections showing reduced snowpack and earlier runoff, and the cumulative impact of all water uses on treaty-protected fishery resources.

28. Data centers should report water use to the Washington State Department of Ecology. The reporting should include daily quantities (total and peak uses), any effluents that are discharged outside the data center, any impacts on existing water systems (for example, data center discharges that cause a municipal water system to exceed its capacity resulting in untreated water entering streams or rivers, or adverse impacts on ground water).

# Effects on Consumer Electric Costs

## *Findings*

### Increases to Consumer Utility Bills

Cost protection for consumers is a significant issue. This is especially important in tribal communities where average incomes are below other communities. Building new energy and transmission facilities will cost billions of dollars and could directly increase consumer electricity costs. There are also potential indirect impacts. If the data centers use the most developable new generation sites and significant portions of the lowest-cost transmission upgrades, it would increase costs to other consumers even more. Some data centers may be willing to pay a premium for electricity[14]. This could also increase the cost of resources for other consumers.

Consumers and other industries may also pay more under the clean-energy programs. For example, if utilities develop fossil-fueled resources to serve the data centers they would receive no-cost allowances under the Climate Commitment Act. This would reduce the revenue the state generates at auctions and could drive up prices of allowances for other industries. Data centers using fossil fuels as the main source of power would need to buy allowances and that could also increase the price of allowances. Utilities developing methane-gas powerplants would need to purchase offsets. An increase in fossil fuels could also add to the costs of natural gas.

Investor-Owned Utilities: The Washington Utilities and Transportation Commission and the Oregon Public Utility Commission regulate how a utility's costs are allocated to its customers. The utility's rate design captures the unique costs that a utility must incur to serve a particular class of customers or special customers in a class. Equitable and effective rate design will ensure that the utility's costs to serve a particular customer class (e.g. residential, commercial, industrial, or data centers) will be allocated to that class in rates. Given the size of data centers, a separate customer class will be needed.

The utility commissions also address stranded asset risks. If investments are made to serve a data center that does not get built or shuts down, there needs to be mechanisms in place to protect other rate payers from these costs and ensure that data centers pay the stranded costs of the energy and transmission facilities built to serve them.

The Oregon POWER Act (House Bill 3546), creates a new customer rate class for data centers and cryptocurrency within Oregon's investor-owned utilities, allowing the OPUC to ensure these large customers pay for their fair share of the energy infrastructure costs in Oregon. The act aims to prevent residential and small business customers from subsidizing these large energy consumers. The legislation also requires large energy users to sign a 10-year contract that commits them to pay a minimum amount for energy used as well as pay for adding new transmission.

Publicly Owned Utilities: Each public utility sets its own rates. Several of the Mid-Columbia

[14] Morgan Stanley Research, *The Overlooked Value of Power,* October 10, 2024, pages 2, 7, and 20.

utilities reported that they have served data centers from excess generation produced by the dams they own. As those supplies are fully committed, these utilities will need to add new resources to serve additional data center load. Other public utilities will also need to arrange for new resources or purchase electricity from BPA. Like the customers of investor-owned utilities, the rate payers of consumer-owned utilities should be protected from the capital and operational costs associated with acquiring these new resources.

Data centers served by BPA customers would be considered a "New Large Single Load[15]" as defined in Section 3(13) of the Northwest Power Act. As such, the "average system cost" for electric power sold by the Administrator cannot include the "cost of additional resources in an amount sufficient to serve any new large single load of the utility." See 5(c)(7)(A). That means loads over 10 megawatts will not have access to BPA's low-cost power and would be served from BPA's new resources pool.

To avoid rate impacts to other customers, all utilities will need to ensure that cost causers pay their costs.

## *Recommendations*

29. State utility commissions and public utilities should ensure that the cost causer pays the cost of services provided and load growth due to data center development should be attributed to data centers when making rates to ensure equity and fairness to existing consumers.

30. The WUTC and public utilities should adopt additional tools to address data centers, for example:

    a. A separate customer class for very large new loads or a separate data center tariff to ensure proper cost allocation.

    b. Mechanisms to address stranded costs if a data center leaves the service territory or goes out of business.

    c. Mechanisms to address any unused capacity that was built to meet a data center's estimated peak capacity requirement but never fully used by the data center due to customer loss, a slower business cycle, or just slower than expected growth.

31. The WUTC should evaluate investor-owned utility plans to serve data centers to ensure that they fully address the state climate and energy goals and policies. Consumer-owned utilities should conduct similar evaluations.

32. Utilities should regularly conduct a cost-of-service study to ensure that rates are designed to only recover the costs caused by each customer class.

[15] 3(13). "New large single load" means any load associated with a new facility, an existing facility, or an expansion of an existing facility– which will result in an increase in power requirements of such customer of ten average megawatts or more in any consecutive twelve-month period.

33. Data centers should be required to enter into long-term, binding contracts to cover generation, transmission, and distribution costs, with provisions for exit fees and insurance bonds to mitigate the financial risks if they cease operations or underutilize investments that were made to serve them.

34. To address the potential that data centers could increase costs for other consumers by utilizing the most developable or lowest-cost resources and transmission expansions, the Washington State Energy Office should prepare an analysis of these issues and prepare recommendations to address them.

# Tax Incentives

## *Findings*

A major focus of the workgroup was on the tax incentives. As discussed below, the Yakama Nation had concerns about continuing the tax incentives. The Yakama Nation, NGOs, and state agencies proposed new conditions that could address some of the impacts of new data centers. The data center industry and labor supported expanding the program to the entire state but had concerns about additional conditions. After extensive discussion, the Workgroup did not have majority support for any of these actions.

According to Department of Revenue's Annual Tax Preference Performance Report data, the tax incentives to data centers and data center tenants were $584 million over the last decade (2012-2023). In 2023, the most recent data available, tax exemptions totaled over $118 million. If the state experiences significant data center growth, the impact of the tax incentives will increase. The Yakama Nation has raised a number of questions about the costs and benefits of the tax incentives in the Data Center Workgroup.

The Seattle Times reported recently that Washington has spent $1 billion on tax incentives to encourage high technology companies to locate in this state, but there is no way to determine the benefits.[16] The current tax incentives for data centers will soon exceed $1 billion. The current program has some requirements for employment and other goals, but the state cannot currently report on whether those goals are being achieved.

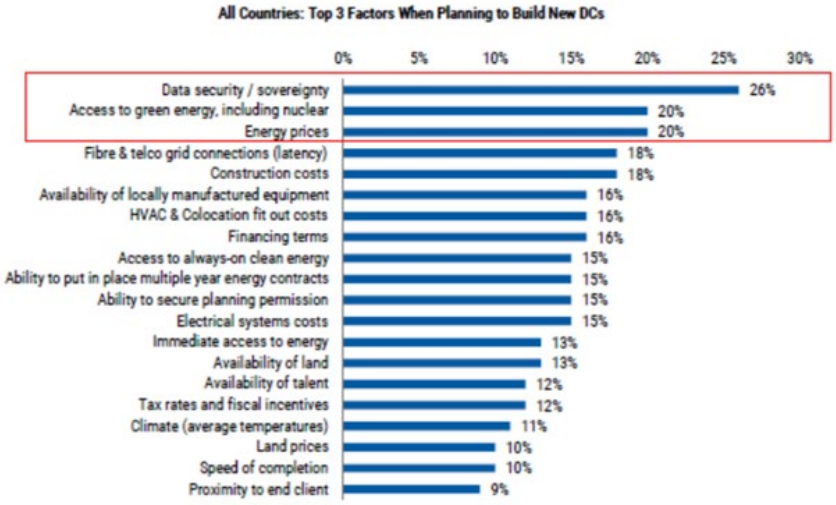
### Do Tax Incentives Affect Where Data Centers are Located?

A key question raised by the Yakama Nation is how important are the tax incentives to the decisions on where they are located? Based on the independent research we have found data security, energy prices, access to energy, and speed to completion are the most important factors.

The Exhibit below is based on two surveys that were conducted for Morgan Stanley Research by AlphaWise in March 2025. The first was based on 239 interviews with senior procurement and sourcing decision makers for data center operators. The second survey interviewed 234 senior sources decision makers at data center builders and suppliers. Based on the survey, tax rates and fiscal incentives were 16th on the list of factors when planning to build data centers[17].

[16] *WA spent a billion in tax breaks to help tech dominate. Was it worth it?* Seattle Times, November 2, 2025.
[17] *Global Data Center Capacity Growth to Increase 6x*, Morgan Stanley Research, page 7.

**Exhibit 8:** Top 3 factors when planning on building DCs (US, UK, Italy, Spain and Norway)




Please see attachment C for more details.

## Are Tax Incentives Needed to Make Data Centers Profitable?

The Yakama Nation representatives also raised questions about economic importance of tax incentives for the economics of data centers. An analysis by TeraWulf showed potential illustrative business models for financing data centers. The summary appears to show that data centers could be very profitable. The margins (profits) range from 65 to 90 percent and the Earnings Before Interest, Taxes, Depreciation, and Amortization (EBITDA) range from valuation of 7 to 20 times EBITDA. This information indicates that data centers are very profitable. The companies building data centers have some of the highest valuations in the world (see attachment C for more details).

## How do Data Center Jobs and Economic Benefits Compare to Other Tax Incentives?

The Yakama Nation has sought information on the number and type of permanent jobs provided by data centers. Staff at the Department of Revenue have indicated that this information is not available and a change in state law would be needed to provide the data.

The staff cited RCW 82.32.330. A Yakama Nation consultant reviewed of the provision and assumed that the number of jobs created by data centers are part of their tax return or in the report to the Department of Revenue as required by the tax incentives. The consultant raised a question about Section (3) which says"

> (3) This section does not prohibit the department of revenue from:"
>
> (d) Publishing statistics so classified as to prevent the identification of particular returns or reports or items thereof;…

We sought clarification on whether DOR could provide data on the aggregate total number of

jobs created under the tax incentives for data centers and any other industries that receive tax incentives. The aggerate data would be very useful in addressing the effectiveness of the tax incentives for data centers compared to those offered to other industries. We also asked for clarification of the specific legal barrier and what the legislature would need to do to allow reporting of aggregate jobs data. As of the deadline for this report, we have not received a response to these questions.

A similar question exists for reporting aggregate information on the taxes paid by data centers and the economic contributions to the economy from the data centers and how they compare to other industries receiving tax incentives. The Data Center Coalition provided a report to the workgroup on the industry's jobs and economic impacts but no comparison to other industries. The state staff did not have the resources for an independent evaluation of the Data Center Coalition report.

## *Recommendations*

35. Until we receive credible information that addresses the issues we have raised, the Yakama Nation opposes the continuation of the tax incentives because we have not seen independent information that they are needed and in the public interest. Continuation of tax incentives would subsidize actions that will damage tribal resources. Any continuation of the tax incentives must be conditioned on data centers meeting the conditions in this report, including protections for: 1) the reliability of the electricity system, 2) salmon and other tribal resources, 3) water quality and quantity, and 4) consumers.

If the Washington Legislature continues the data center tax incentives:

36. The legislature should set clear goals and objectives for what the tax incentives are intended to achieve and direct state agencies to collect and analyze the information needed to ensure the programs achieve those goals. The legislature should regularly review this information and adjust the program. Specific actions should include:

    a. The governor and legislature should make changes that would allow the Department of Revenue to report on the aggregate economic activity (including taxes paid and economic benefits) and number of permanent jobs (professional and janitorial) that are created by data centers.

    b. The Department of Revenue should be directed to prepare an analysis on the economic activity and jobs that result from the data center tax incentives compared to tax incentives for other activities.

    c. The governor and legislature should review whether the protections for the electrical grid, salmon and tribal resources, water, and consumers are sufficient and whether the data center tax incentives are in the public interest every two years and adjust these programs as necessary.

# Attachment A: 2022 Energy Vision for the Columbia River Basin: Energy Efficiency and Development Recommendations

## *Summary*

The CRITFC Energy Vision for the Columbia River Basin includes 43 recommendations that are designed to ensure that renewable resources in combination with increased storage, reductions in peak demand, and increased energy efficiency can provide clean, adequate, reliable, and affordable electricity, support the restoration of heathy, harvestable salmon populations, and prevent future damage to salmon and steelhead and other tribal resources caused by the electrical system. For more information see www.critfc.org/energy-vision. The recommendations address these nine major activities.

**Improve River Configuration and Operations:** The region needs to plan for changes to reduce the damage to migrating salmon and steelhead caused by the Columbia Basin dams, including breaching the four lower Snake River dams.

**Amend the Columbia River Treaty:** Amend the treaty to include protections for fish and wildlife and expand the scope to include win-win opportunities to integrate renewable resources.

**Reduce Peak Loads:** The Energy Vision details actions to reduce peak demands that can save salmon and money.

**Maximize Energy Efficiency:** Maintain and expand energy efficiency targets and work to exceed them. Energy efficiency measures are positive for fish and wildlife.

**Harness Renewable Resources:** Renewable resources in combination with storage and electric load management can create an environment that is better for fish and wildlife and other tribal resources.

**Strategically Site Renewable Resources:** Develop a regional plan for where renewable resources should be developed, and where they should not, and to provide expeditious siting with clear and uniform standards across all political subdivisions.

**Increase Resource Adequacy**: Electricity shortages have reduced protections and funding for fish and wildlife; Section 3 details actions to improve this problem.

**Minimize Transmission and Distribution Systems:** Load management, energy efficiency, and strategic siting of resources will reduce costs for consumers and the damage to tribal resources.

**Address the Climate Crisis:** Reduce greenhouse gas pollution and continue to increase energy efficiency to try to avoid the devastating effects we are facing.

## *CRITFC Energy Vision Recommendations*

The Energy Vision for the Columbia River Basin includes detailed findings, rationales, and recommendations that are available at www.critfc.org/energy-vision. This section summarizes the relevant recommendations.

### Reduce Peak Loads

**Recommendation 4:** The Council, BPA, and utilities should include the peak savings and reductions in transmission and distribution benefits in calculating the capacity value of energy efficiency programs.

**Recommendation 5:** Northwest public utility commissions should implement time-of-use rates to send an appropriate price signal that captures the dramatically different costs of using electricity during different times of the day.

**Recommendation 6:** Utilities should use demand response to manage system loads, reducing peak loads, ensuring reliability by encouraging customers to reduce demand during peak periods or shift loads from peak to off-peak hours.

**Recommendation 7:** Automobile manufactures should include systems that allow electric vehicles to schedule charging during off-peak periods.

**Recommendation 8:** Utilities should integrate electric vehicle charging and batteries into the power system to reduce costs to consumers and the power system and improve salmon migration.

**Recommendation 9:** BPA and utilities should work to improve the efficiency of electric vehicles.

**Recommendation 10:** The Council, BPA, and utilities should fund the incremental costs of heat pump water heaters to stimulate the adoption of this technology.

**Recommendation 11:** Utilities and BPA should develop and fund programs to schedule when water heaters operate.

### Increase Electricity Storage

**Recommendation 12:** BPA and utilities should implement utility-scale battery projects.

**Recommendation 13:** BPA and utilities should implement incentive programs to expand the use of on-site batteries.

**Recommendation 14:** BPA and utilities should fund programs to reduce peak loads using the thermal mass of buildings.

**Recommendation 15:** The Council and utilities should not pursue potential pumped storage sites unless they are consistent with the siting criteria described in Section 3.6.

**Recommendation 16:** Utilities and the Council should continue to monitor green hydrogen technologies.

## Maximize Energy Efficiency

**Recommendation 17:** The Council should increase the conservation targets in the 8th Power Plan to maintain at least the level of activity called for in the 7th Plan and work with BPA and utilities to try to exceed the targets.

**Recommendation 18:** The Council should monitor the implementation of energy efficiency programs to ensure that utilities meet the conservation targets.

**Recommendation 19:** All tribal homes and businesses should be fully weatherized by 2025 and all tribal homes and businesses should receive solar panels and battery systems that provide zero net energy by 2030.

**Recommendation 20:** Utilities should weatherize and achieve net zero energy for all low-income homes by 2035.

**Recommendation 21:** Utilities, the Northwest Energy Efficiency Alliance, and other organizations should implement comprehensive programs to improve energy management practices in the commercial and industrial sectors.

## Harness Renewable Resources & Integrate/Synergize with Electricity Storage

**Recommendation 22:** Congress, state legislatures, the Council, and public utility commissions should review programs to reduce greenhouse gases to avoid unintended consequences.

**Recommendation 23:** The Council should analyze the integration of renewable resources under a range of scenarios for river operations.

**Recommendation 24:** Utilities and BPA should continue to pursue wind, and the associated efforts to integrate wind power, consistent with the tribal concerns and protections for fish, wildlife, and cultural resources.

**Recommendation 25:** The region should expand its efforts to promote utility-scale solar energy.

**Recommendation 26:** BPA and utilities should fund proof of concept projects for dual use solar.

**Recommendation 27:** States, local governments, and utilities should expand policies to promote on-site solar systems.

**Recommendation 28:** The Council, Northwest legislatures, energy regulators, and utilities should consider adopting zero net energy building standards.

**Recommendation 29:** State and local governments should adjust building codes to ensure that they can accommodate on-site batteries.

**Recommendation 30:** The Council, BPA, and utilities should continue to monitor and support other promising renewable resources.

## Strategically Site Renewable Resources

**Recommendation 31:** CRITFC and its member tribes should work with state energy and siting agencies, federal agencies, Northwest Grid, the Northwest Power Pool, and others to develop a comprehensive plan for siting renewable resources and transmission lines that builds in efforts currently being developed in the states.

## Increase Resource Adequacy

**Recommendation 32:** The Northwest Power Pool Resource Adequacy Program should address fish and wildlife protections by increasing electric system reliability while minimizing pressure on the existing hydroelectric system as the *de facto* fallback. In the near term, these reserves are likely to require having combustion turbines on standby. There may be opportunities to fuel these plants with biofuels that reduce their net carbon footprint. While CRITFC strongly supports the long-term elimination of all fossil fuels to address the climate crisis, in the near term, there may be circumstances where the choice is burning some natural gas or shutting down river operations and killing migrating salmon. CRITFC supports rate treatment for the costs associated with maintaining, staffing, fuel contracts and fuel storage, and other costs for these resources.

**Recommendation 33:** The California Public Utilities Commission and the California Independent System Operator should address reliability issues in California that could affect the Northwest.

**Recommendation 34:** BPA and Congress should address repayments to the Treasury to avoid curtailment of fish and wildlife protections.

**Recommendation 35:** The Pacific Northwest utilities, states, and federal agencies should closely monitor West Coast energy market developments to ensure that they address impacts on Columbia Basin Fish and Wildlife and other tribal resources.

# Attachment B: Statutory References

## *Northwest Power Act Provisions*

The Northwest Power Act of 1980 (Public Law 96-501, 16 USC 839) defines a new large single load as anything over 10 average megawatts for any 12-month consecutive period. NLSL must be served by BPA's new resources pool of resources—more expensive than the low-cost power pool that comes from the federal dams.

Section 3 of the Act's provision states:

> 3(13). "New large single load" means any load associated with a new facility, an existing facility, or an expansion of an existing facility–
>
> 3(13)(A). which is not contracted for, or committed to, as determined by the Administrator, by a public body, cooperative, investor-owned utility, or Federal agency customer prior to September 1, 1979, and [Northwest Power Act, §3(13)(A), 94 Stat. 2699-2700.]
>
> 3(13)(B). which will result in an increase in power requirements of such customer of ten average megawatts or more in any consecutive twelve-month period. [Northwest Power Act, §3(13)(B), 94 Stat. 2700.]

Under Section 5, BPA is authorized to purchase power;

> 5(c)(7). The "average system cost" for electric power sold to the Administrator under this subsection shall be determined by the Administrator on the basis of a methodology developed for this purpose in consultation with the Council, the Administrator's customers, and appropriate State regulatory bodies in the region. Such methodology shall be subject to review and approval by the Federal Energy Regulatory Commission. Such average system cost shall not include–
>
> > 5(c)(7)(A). the cost of additional resources in an amount sufficient to serve any new large single load of the utility; [Northwest Power Act, §5(c)(7)(A), 94 Stat. 2714.]
> >
> > 5(c)(7)(B). the cost of additional resources in an amount sufficient to meet any additional load outside the region occurring after December 5, 1980; and [Northwest Power Act, §5(c)(7)(B), 94 Stat. 2714.]
> >
> > 5(c)(7)(C). any costs of any generating facility which is terminated prior to initial commercial operation. [Northwest Power Act, §5(c)(7)(C), 94 Stat. 2714.]

Northwest Power Act prohibits new direct service customers: Section 5(d)(2). The Administrator shall not sell electric power, including reserves, directly to new direct service industrial customers. [Northwest Power Act, §5(d)(2), 94 Stat. 2714.]

5(d)(4)(B). The term "new direct service industrial customer" means any industrial entity other than an existing direct service industrial customer. [Northwest Power Act, §5(d)(4)(B), 94 Stat. 2715.]

The NWPA has several provisions relating to rate design:

> 9(j). Retail rate designs which encourage conservation and efficient use of electric energy, installation of consumer-owned renewable resources, and rate research and development
>
> > 9(j)(1). The Council, as soon as practicable after December 5, 1980, shall prepare, in consultation with the Administrator, the customers, appropriate State regulatory bodies, and the public, a report and shall make recommendations with respect to the various retail rate designs which will encourage conservation and efficient use of electric energy and the installation of consumer-owned renewable resources on a cost-effective basis, as well as areas for research and development for possible application to retail utility rates within the region. Studies undertaken pursuant to this subsection shall not affect the responsibilities of any customer or the Administrator which may exist under the Public Utility Regulatory Policies Act of 1978. [Northwest Power Act, §9(j)(1), 94 Stat. 2734.]
>
> > 9(j)(2). Upon request, and solely on behalf of customers so requesting, the Administrator is authorized to (A) provide assistance in analyzing and developing retail rate structures that will encourage cost-effective conservation and the installation of cost-effective consumer-owned renewable resources; (B) provide estimates of the probable power savings and the probable amount of billing credits under section 839d(h) of this title that might be realized by such customers as a result of adopting and implementing such retail rate structures; and (C) solicit additional information and analytical assistance from appropriate State regulatory bodies and the Administrator's other customers. [Northwest Power Act, §9(j)(2), 94 Stat. 2734.]

## *Washington Statutory Provisions on Rate Equality*

### Public-Owned Utilities

**RCW 54.16.040**
**Electric energy.**
A district may purchase, within or without its limits, electric current for sale and distribution within or without its limits, and construct, condemn and purchase, purchase, acquire, add to, maintain, conduct, and operate works, plants, transmission and distribution lines and facilities for generating electric current, operated either by water power, steam, or other methods, within or without its limits, for the purpose of furnishing the district, and the inhabitants thereof and any other persons, including public and private corporations, within or without its limits, with electric

current for all uses, with full and exclusive authority to sell and regulate and control the use, distribution, rates, service, charges, and price thereof, free from the jurisdiction and control of the utilities and transportation commission, in all things, together with the right to purchase, handle, sell, or lease motors, lamps, transformers and all other kinds of equipment and accessories necessary and convenient for the use, distribution, and sale thereof: PROVIDED, That the commission shall not supply water to a privately owned utility for the production of electric energy, but may supply, directly or indirectly, to an instrumentality of the United States government or any publicly or privately owned public utilities which sell electric energy or water to the public, any amount of electric energy or water under its control, and contracts therefor shall extend over such period of years and contain such terms and conditions for the sale thereof as the commission of the district shall elect; such contract shall only be made pursuant to a resolution of the commission authorizing such contract, which resolution shall be introduced at a meeting of the commission at least ten days prior to the date of the adoption of the resolution: PROVIDED FURTHER, That it shall first make adequate provision for the needs of the district, both actual and prospective.

## Investor-Owned Utilities

**RCW 80.28.100 - Rate discrimination prohibited—Exception.**
No gas company, electrical company, wastewater company, or water company may, directly or indirectly, or by any special rate, rebate, drawback or other device or method, charge, demand, collect or receive from any person or corporation a greater or less compensation for gas, electricity, wastewater company services, or water, or for any service rendered or to be rendered, or in connection therewith, except as authorized in this chapter, than it charges, demands, collects or receives from any other person or corporation for doing a like or contemporaneous service with respect thereto under the same or substantially similar circumstances or conditions.

**RCW 80.28.090**
**Unreasonable preference prohibited.**
No gas company, electrical company, wastewater company, or water company may make or grant any undue or unreasonable preference or advantage to any person, corporation, or locality, or to any particular description of service in any respect whatsoever, or subject any particular person, corporation or locality or any particular description of service to any undue or unreasonable prejudice or disadvantage in any respect whatsoever.
Washington Statute Regarding Obligations of Public Owned Utility on Provision of Water

**RCW 54.16.030**
Water and irrigation works.
A district may construct, purchase, condemn and purchase, acquire, add to, maintain, conduct, and operate waterworks and irrigation plants and systems, within or without its limits, for the purpose of furnishing the district, and the inhabitants thereof, and of the county in which the district is located, and any other persons including public and private corporations within or without the limits of the district or the county, with an ample supply of water for all purposes, public and private, including water power, domestic use, and irrigation, with full and exclusive authority to sell and regulate and control the use, distribution, and price thereof.
***Emphasis added to all statutes cited above***

## *Oregon Statutory Provisions*

Oregon POWER Act (HB3546, 2025) - New customer rate class for data centers and cryptocurrency within Oregon's investor-owned utilities

OR HB3409 (2023). Sections 8& 9 address commercial building energy efficiency standards. Building Energy Performance Standard are codified as Oregon Revised Statutes (ORS) 469.275 - 469.291

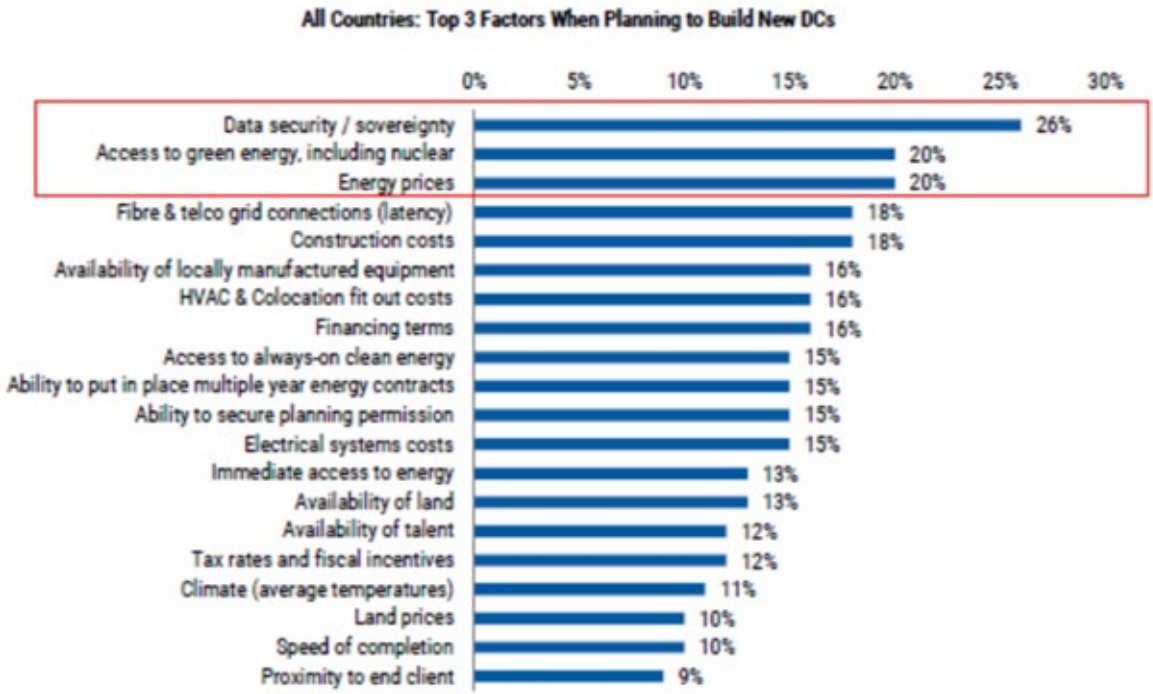
# Attachment C: Factors Affecting Decisions on Location and the Profitability of Data Centers

**Decisions on where to locate data centers**. The key factors in the United States were:

1. data security,
2. energy prices,
3. access to energy,
4. and speed to completion are the most important factors.

A report by Morgan Stanley Research showed that tax incentives were 16th on the list of factors when planning to build data centers[1].

**Exhibit 8:** Top 3 factors when planning on building DCs (US, UK, Italy, Spain and Norway)




The Exhibit above is based on two surveys that were conducted for Morgan Stanley by AlphaWise in March 2025. The first was based on 239 interviews with senior procurement and sourcing decision makers for data center operators. The second survey interviewed 234 senior sources decision makers at data center builders and suppliers.

[1] *Global Data Center Capacity Growth to Increase 6x*, Morgan Stanley Research, page 7.

## Survey Details

**Primary Research**

**See what others don't.**

1) Data security/sovereignty, access to green energy and energy prices are the most important considerations for operators when building new DCs. Over the next 2 years, operators believe the main bottlenecks will be: securing primary or back up power generation, availability of chips/GPUs and speed of access to electricity. 2) Capacity has increased by an average of 5% over the last 12 months and could increase by 9% in the next 2 years. In the next 2 years, 34% of operators say they will invest more in the US, followed by the UK (29%), Spain (27%), Italy (26%) and France (23%). 3) In the next 2 years, operators believe that total DC costs will increase by an average of 11.48%, with electrical systems most responsible for total DC cost increases, followed by cooling technology and grid connection. For builders & suppliers, DC related building & supply costs are expected to increase by an average of 14% in the next 2 years.

**Methodology**

In March 2025, we carried out 2 surveys (with a total sample size of 473) to understand DC expansion over the next 2 years in the US and Europe.

DC Operator Survey

We carried out a total of 239 online interviews with senior procurement & sourcing decision makers at data center operators.

Sample size by country: US: 52, UK: 54, Italy: 52, Spain: 52 & Norway: 29

Sample size by procurement responsibility: DC builders: 136, Construction materials: 96, Electrical systems: 122, HVAC/Mechanical systems: 133 & Colocation fit out: 89

DC Builders & Suppliers Survey

We carried out a total of 234 online interviews with senior sourcing decision makers at data center builders & suppliers for data center operators.

Sample size by country: US: 57, UK: 48, Italy: 48, Spain: 49 & Norway: 32

Sample size by supplier type: DC builders: 134, Construction materials: 118, Electrical systems: 134, HVAC/Mechanical systems: 129 & Colocation fit out: 77

**Team behind the analysts.**

AlphaWise Primary Research gathers alternative data and generates unique insights via an innovative analytical and visualization platform.

Source: AlphaWise

**Economic importance of tax incentives**: An analysis by TeraWulf showed potential illustrative business models for financing data centers. The summary appears to show that data centers could be very profitable. The margins (profits) range from 65 to 90 percent and the Earnings Before Interest, Taxes, Depreciation, and Amortization (EBITDA) range from valuation of 7 to 20 times EBITDA. Attachment B provides more detail on the factors affecting decisions on where to locate and the profitability of data centers.

# Potential HPC Data Center Construction Financing Structures

## WULF Compute – Potential Illustrative Business Models

*Maximizing land, megawatts, and capital for optimal long-term value creation*

*WULF Compute's Core Business*

| | Cloud Service Provider (CSP) | Colocation – Whitespace & Rack Ready | Build to Suit |
|---|---|---|---|
| Description | Shell data center and GPU clusters; space, power, cooling, fiber/internet, security, compute, storage and environment. | Shell data center; lease rack ready whitespace including redundant power, cooling, fiber/internet, and security | Data center built to spec; lease space, redundant power, cooling, fiber/internet, and security |
| Customer | Multiple – Managed through cloud partner | Multiple – Enterprise and well funded startups | Single – Hyperscaler |
| Contract Size | 0.1 – 50 MW | 0.5 – 100 MW+ | 100+ MW |
| Contract Term | 1 – 36 months | 5 – 15 years | 15+ years with renewals |
| O&M | WULF managed | WULF managed | Tenant managed |
| Build Cost per MW | $27 – 30 million (1) | $6 – 8 million (1) | $2 – 4 million (4) |
| Financing | Equity & Debt | Equity (initially) | Highly Bankable |
| Revenue per MW | $11 – 18 million (2) | $1.3 – 1.8 million (3) | $0.2 – 0.5 million |
| Margins | 70 – 80% | 65 – 75% | 90% + |
| Valuation Range | 7-12x EBITDA | 10-15x EBITDA | 15-20x EBITDA |

TERAWULF

(1) Build cost for CSP and colocation model reflect liquid cooling infrastructure.
(2) Low end of range based on long-term reserve contract at $2.1/GPU/hr with 100% rental utilization, high end of range represents $4.50/GPU/hr of on-demand revenue at 80% rental utilization.
(3) Does not include customer pass-through energy expense. Subject to term length and payment terms.
(4) Based on air cooled powered shell infrastructure. NNN Rent Structure; customer pays all OpEx directly.

16

Source: TeraWulf.

# Appendix E: Executive Order 25-05

STATE OF WASHINGTON
OFFICE OF GOVERNOR BOB FERGUSON

**EXECUTIVE ORDER 25-05**

**DATA CENTER WORKGROUP**

**WHEREAS,** data centers are critical infrastructure supporting Washington State's digital economy, providing essential services that drive innovation and economic growth; and

**WHEREAS,** the data center industry is highly competitive, with states offering various incentives to attract investments; and

**WHEREAS,** data centers consume significant amounts of electricity, which can put additional strain on the local power grid and can necessitate increased energy generation, storage, and transmission; and

**WHEREAS,** locating data centers in Washington State can lead to an increase in jobs and property tax revenue, particularly for rural communities; and

**WHEREAS,** the most recent analysis from the Joint Legislative Audit and Review Committee estimated that data center sales and use tax exemptions saved beneficiaries over $100 million in the 2017-2019 biennium; and

**WHEREAS,** balancing economic development, state and local tax revenue, energy use, and environmental responsibility is vital to ensuring Washington state remains a leader in both technology and sustainability;

**NOW, THEREFORE,** I, Bob Ferguson, Governor of the state of Washington, by the power vested in me by the Constitution and the statutes of the state of Washington, do hereby order and direct as follows:

1. The Department of Revenue shall establish and lead a Data Center Workgroup.
2. The Workgroup shall include representatives from the Department of Commerce, the Utilities and Transportation Commission, the Department of Ecology, electric utilities, environmental advocacy groups, labor organizations, industry stakeholders, and others, as designated by the Office of the Governor.
3. The Workgroup shall discuss the impacts of data centers on Washington State's economy, tax revenue, energy use, and the environment. The Workgroup will consider policies that balance industry growth, tax revenue needs, energy constraints, and sustainability.
4. By December 1, 2025, the Workgroup shall submit its findings and any policy recommendations to the Governor.

This Executive Order shall be implemented consistent with applicable law. Provisions of this Order are not intended to alter any existing collective bargaining agreements. This Order is not intended to confer and does not confer any legal right or entitlement and shall not be used as a basis for legal challenges to any rule or any other action or inaction of the governmental entities and employees subject to it.

This Order takes effect immediately.

Signed and sealed with the official seal of the state of Washington on this 3rd day of February AD, Two Thousand and Twenty-Five, at Olympia, Washington.

By

/s/
Bob Ferguson
Governor

BY THE GOVERNOR

/s/
Secretary of State

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[1] Keith Swenson was appointed by the Department of Commerce to fill the vacancy created by Joseph Williams who was appointed the Acting Director of the State Broadband Office.

[2] Michael Mattmiller filled the vacancy created by Irene Plenefisch due to her retirement from Microsoft..

[3] RCW 70A.45.070

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

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

[6] 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

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

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

[9] 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

[10] 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

[11] 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;

[12] 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

[13] 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

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

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

[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 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

[19] ProPublica Article, March 12 2025

[20] https://blogs.microsoft.com/blog/2020/01/16/microsoft-will-be-carbon-negative-by-2030/

[21] Matthew Fox, Principal Corporate Counsel with Microsoft filled the vacancy caused by Irene Plenefish's retirement on the Energy & Resource Impacts Subgroup. (Michael Mattmiller filled the vacancy in the meetings of the full Workgroup.)