Data Center Energy & Resource Impacts Subgroup
Draft and tentative findings
Updated July 18, 2025.

General Power Sector

1. **Overall economywide demand in Washington for new, clean electricity sources is expected to increase for multiple reasons, including replacement of retiring fossil-fired plants and electrification of existing transportation, building, and industrial uses.**

2. **Multiple factors constrain the ability of the power system to increase capacity on pace with demand growth; these factors include permitting and siting timelines, shortages of materials and equipment, extended delays in processing interconnection requests, transmission constraints, clean and firm energy technologies availability at scale, and impacts of federal policies.**

3. **The limitations of the Pacific Northwest transmission system and markets are a significant constraint in accessing additional sources of clean electricity.**
    - 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.
    - Western market constructs are small and fragmented, creating difficulties in facilitating cost-effective clean energy planning and delivery at scale across regions.
    - Grid enhancing technologies (GETS) represent a near-term solution to adding capacity to the transmission system.

Data Center-Specific

4. **The transition from widely distributed computing to computing centralized in datacenters has greatly increased the energy efficiency of computer processing.**
    - In 2010, 79 percent of data center computing was done in smaller traditional computer centers, largely owned and run by non-tech companies.
    - By 2018, 89 percent of data center computing took place in larger, utility-style cloud data centers.
    - While energy consumption by data centers rose 6 percent from 2010 to 2018, computing output jumped 550 percent.

5. **The data center industry has strong sustainability goals driving their energy procurement.**
6. **Data centers can help enable new, clean generation sources through corporate purchasing and innovative utility partnerships. The industry's purchases have provided the financial backing necessary to accelerate the grid's decarbonization.**

7. **The addition of large data center loads and other loads to the operations of retail utilities exacerbates existing shortages resulting from the constraints in item #2 above.**
    - Potential impacts to other customers may arise as new investments and operating costs are included in existing rates, but costs should be allocated appropriately by the utility and reviewed by the appropriate regulator or governing board. Data center electric consumption may adversely affect costs incurred for wholesale power during peak periods. Other costs could result if large customers exit the market before full recovery of investments made to serve those customers.
    - There are adequate tools available to regulators and governing boards to manage potential impacts. Examples of additional tools to consider include forecasting improvements, transparency in rate design, amendments to existing customer classes, ringfencing, special contracts, basing rate design on cost of service, application and service extension charges, contract term requirements, resource planning requirements, and operating standards.
8. **In light of the essential services data centers provide, it is important to avoid the application of policies that overcorrect for risks to other ratepayers. To avoid such overcorrection utilities should adopt the following practices:**
    - Forecasting improvements such as commercial readiness verification for large load additions, transparency of forecast inputs and assumptions, reporting standardization across utilities, supplement forecasts with independent/third party data, utilizing scenario analysis (low, medium, high, higher), regular forecast review and backcasting analysis
    - Sound ratemaking principles such as:
        i. **Non-Discrimination** (No customer, industry, or class should be singled out for differential rate treatment unless such distinctions are backed by verifiable cost-based reasoning).
        ii. **Cost causation, (**Customer rates should reflect the actual costs of service. Cost allocation methods should establish a clear link to usage and be accurate, transparent, and reproducible by others outside the utility.
        iii. **Limit cross-subsidization (**Rates should avoid creating unfair subsidies between customer groups or loads, ensuring that costs are distributed equitably among those who incur them.
        iv. **Transparency (**The ratemaking process should be open and accessible, providing customers with the necessary information and a clear understanding of how rates are determined.)
    - A regulatory path through Commission proceedings that allow for broad stakeholder participation
    - Standard process that starts with the revenue requirement for a tariff and then focuses on prudent / used and useful standards and confine this discussion to establishing just and reasonable rates.

- Fair Tariff Design should Balance tariff requirements with actual risk. Data centers and other large loads are treated consistently with utility precedent and regulatory norms. Utilities should be required to mitigate costs associated with potential "stranded" investments across industries. Collateral requirements should be reduced as risk diminishes over time. If it is determined that a customer project or a customer class poses a legitimate risk to other ratepayers, there are several existing tools that the utility can use to mitigate the risk. However, the utility's tariffs should be flexible enough to offer a range of solutions to be selected by the large customer to fit their business model and needs. The policy framework should apply consistently across multiple projects and over time. Any solution implemented should acknowledge that the risk of a project to other rate payers declines over time, and any risk-reduction mechanism should adjust accordingly. Credit policies should evolve in response to changing conditions, technologies, or regulatory environments.

9. **Data center development requires an updated and expanded electric power grid, and data centers are presently, and will continue, paying their full cost of service.**

10. **Opportunities exist to manage resource requirements resulting from the development of data centers and other large loads.**
    - Some of these opportunities include energy efficient designs, advanced power management practices, planned use of backup generators during power system peaks, and the use of standalone (microgrid) generating and storage resources. However, it should be noted that the types of loads and the types of customers and businesses served by data centers are not uniform. While these solutions can help reduce peak energy system needs, not all data centers, technology business models, or customers can accommodate them. Therefore, these should not be required but should instead be incentivized through proper market structures with price signals.
    - With energy as the single largest operating cost for data center operators, there is a built-in incentive for efficient design and operation.
    - Additionally, Washington already has requirements in place for data centers to utilize green building standards.

11. **Data center operators and renewable energy project developers have collectively procured and constructed many times more clean energy resources than the state's utilities.**
    - The experience and expertise of these entities represent a potential resource for the state's utilities as they expand and decarbonize the grid.
    - Because of their broader resource portfolios and strong clean energy and sustainability goals, technology and data center companies may have more capacity to invest in emerging clean energy technologies than do regulated or consumer-owned utilities.

12. **Generation and storage behind the meter, such as solar + storage and enhanced geothermal, are a short-term bridge to full grid connection preferred by data centers.**
    - Gas-fired power generation is a potential interim source of firm energy. While not prohibited within the limits of CETA, any use of gas-fired generation must consider issues such as local pollution impacts, regulatory limits on power plant greenhouse gas emissions, long-term rate impacts to customers if expected data center loads fail to materialize, and the availability of pipeline capacity during winter peaks.
    - Use of behind-the-meter or collocated generation systems can introduce FERC jurisdictional oversight, add to interconnection complexity, or otherwise be limited by land availability or zoning restrictions. Therefore, colocation with generation assets should be incentivized to be implemented where feasible and not mandated.
    - Greenhouse gas emissions from any increased use of methane gas-fired generation would be covered under the Climate Commitment Act. This coverage limits any potential impact on the state's overall GHG emissions but may affect the availability and price of allowances for other covered entities whose activities result in GHG pollution.
    - Advanced nuclear technologies, such as small modular reactors, represent opportunities for clean, firm power at scale, but permitting and siting challenges may reduce and delay development.

13. **[placeholder] Water resource findings**

14. **[placeholder] Other non-energy resource findings**