

# Oregon Governor s Data Center Advisory Committee (DCAC)

Session 4: Data Centers and Energy Issues  
May 29, 2026 – Facilitators’ Summary

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*The following Facilitator Summary is intended to capture general discussion, reflections, concerns, and insights shared at the Data Center Advisory Committee s public session. This summary also indicates actions or issues that the DCAC may need to discuss at upcoming sessions. This summary is not a transcript of the session. For more details on the DCAC s work, and to view this session s [agenda](#), presentations, and [recording](#), please visit the ODOE s [DCAC website](#).*

## **Welcome and Introduction to the Process and People**

Facilitator, **Donna Silverberg**, opened the session and welcomed the Data Center Advisory Committee (DCAC), speakers, and session attendees. She noted that the **ENERGY** agenda subcommittee designed Session 4 with presentations from curated expert panelists to aid the DCAC s focus on the Governor s charge. Specifically:

- Understanding how the development of data centers affects and can help Oregon meet its climate, clean energy, and natural resource management goals,
- Ensuring data centers have reliable energy without burdening Oregon’s ratepayers, and
- Identifying key issue areas to address when developing a policy framework to help guide the state in the responsible siting of data centers moving forward.

Donna highlighted today s session topic, Data Centers and Energy, and reviewed the session agenda and presentations which focus on statewide actions and trend analyses, a case study of a sister state s experience, and local Oregon voices regarding data centers and energy use considerations. The monthly DCAC sessions are intended to be respectful learning sessions reflective of a “data center university” atmosphere. They have been designed to provide expert information sharing and engaged discussion with DCAC members, a group of citizen volunteers asked to help shape recommendations for the Governor.

DCAC co-chairs **Michael Jung** and **Margaret Hoffmann** emphasized that “everyone uses energy.” Energy is a regional issue that is not confined by state borders. The Committee s job is to learn what the State of Oregon can and should do about data centers, energy, climate, and reliability. They appreciated the efforts of the energy agenda sub-committee in curating the session s broad range of speakers. DCAC members and technical support staff introduced themselves following the Co-Chairs’ remarks.

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## **Data Centers and Energy: Overview and Trends in Oregon**

The DCAC invited the Oregon Department of Energy (ODOE) and Sylvan Energy Analytics (SEA), to provide an overview of the current status and trends regarding energy in Oregon with insights into at least the following questions:

- Oregon has specific renewable and greenhouse gas goals for the state: how do data centers fit into them?
- What is the current data center energy usage in Oregon (e.g., trends, processes)?
- How does ODOE interact with data centers regarding energy decisions?
- What else should the DCAC know?

**Technical & Policy Overview:** **Edith Bayer**, Energy Policy Team Lead, ODOE, [presented](#) a technical and policy overview of Oregon's electricity system, data center-driven load growth, emissions implications, and the policy tools Oregon has (or lacks) to manage the situation.

Edith noted that ODOE's mission is to advance "an equitable clean energy transition, protecting the environment and public health, and responsibly balance energy needs and impacts for current and future generations." Currently, electricity is a little over a third of Oregon's total energy use; hydropower is the largest electricity resource, followed by natural gas and market purchases. Edith noted that commercial and industrial electricity sales have grown sharply since about 2015, with a steeper increase after 2020. Much of that growth is due to data centers, especially in investor-owned utility (IOU) and rural electric cooperative territories.

Edith explained that "unspecified" power accounting also increased, clarifying that this growth reflects accounting/reporting changes for market purchases rather than a sudden new market behavior. She also distinguished "average annual demand" from "peak load" and explained that grid planning must cover both. Northwest Power and Conservation Council (NPCC) and Pacific Northwest Utilities Conference Committee (PNUCC) projections show substantial rising demand is pushing the system toward its limits. Even without anticipated data center load growth, large infrastructure projects are needed to meet future demand.

To provide more climate-policy context, Edith reviewed [HB 2021](#); passed by the legislature in 2021, the law set up clean electricity targets, she explained the law applies to PGE, PacifiCorp, and electricity service suppliers, but not all utility territories equally. She also touched on the role of electricity service suppliers, and restrictions on new emitting facilities below 25 MW. Oregon's Renewable Portfolio Standard (RPS) and Renewable Energy Credits (REC) work across a broad western-region footprint. Some consumer-owned utilities can meet their obligations using hydro or other flexible compliance structures.

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Oregon s energy strategy focuses on energy efficiency, clean electricity, load flexibility, electrification, carbon fuels, and resilience, and offers recommendations to accelerate transmission and generation, reporting, and better data. Early trends suggest that data center growth could affect Oregon s greenhouse gas trajectory, including the state s economy-wide emissions goals.

Edith emphasized that Oregon is part of an interconnected regional grid, and that transmission is essential for reliability, imports, and access to broader resources. She highlighted the need for new generation, transmission, flexibility, and dispatchable resources to meet projected load growth.

Edith noted that a gap exists between data center emissions and state policy: a growing share of sales falls outside of HB 2021-covered regulation, creating a policy challenge for statewide emissions reduction. The state also lacks complete, clear data on installed data center capacity and is essentially stitching information together from multiple agencies. Existing actions and rules including the Building Performance Standard and the Oregon Energy Strategy recommend improving data center reporting to evaluate policy changes. For transmission planning needs, Edith referenced Bonneville Power Administration (BPA), Western Transmission Expansion Coalition (WestTEC), and other regional efforts as examples of the larger system buildout required. She stressed that the real challenge is the speed of implementation (which is not fast). Additionally, data centers do not qualify for BPA s lowest rates and are treated as new, large, single loads.

### *Committee Discussion and Q&A*

- **Q: Why did unspecified power grow so much?**
  - A: This was an accounting change, not a change in the underlying market behavior. Power purchased on the market is harder to track for emissions purposes, and DEQ is working through related accounting issues.
- **Q: Does the difference between annual energy and peak load shown in the graphs represent utilization?**
  - A: It can be understood that way, but the more important point is that wires and resources must have the capacity to serve the peak to maintain reliability, even if that level is needed only a small part of the time.
- **Q: Why is the data center growth forecast so much lower?**
  - A: Edith noted it could reflect constraints on transmission or new resource development, or resistance to data center growth. Elaine added it likely assumes the system cannot build enough infrastructure quickly enough.
- **Q: Is the winter peak the main concern?**
  - A: Winter is still the bigger peak, but summer peaks are rising as temperatures and air-conditioning demand increase.

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- **Q: Are HB 2021 requirements applied through IOUs and co-ops?**
  - A: The law covers investor-owned utilities and electricity service suppliers; Edith will check the precise application in some structures.
- **Q: Does HB 2021 apply if a data center is served by an electricity service provider through a co-op or wheeled through another utility?**
  - A: Edith thought so and would double-check.
- **Q: Does the Renewable Portfolio Standard allow power or credits from outside Oregon?**
  - A: Oregon can use renewable energy credits (RECs) from a broad western region, roughly from Baja California to British Columbia; however, unbundled RECs can only be used to satisfy 20% of a electric utility's obligation.
- **Q: Does the 80%/15-year framework mean the remaining risk can still fall on other ratepayers?**
  - A: Edith noted this question needs further analysis; the Committee flagged it for follow-up.
- **Q: Are Oregon data center-driven emissions going down or up overall?**
  - A: The total emissions picture has generally decoupled from consumption in some utility territories because policy and market forces have pushed emissions down; the future remains uncertain.

**Elaine Hart**, Principal at Sylvan Energy Analytics (SEA), [presented](#) the grid reliability side of the energy picture. She noted that resource adequacy means having enough generation and system capability to reliably meet demand across a wide range of conditions. The Pacific Northwest is at a turning point; historically, the region had surplus capacity (slack) due to the hydro system and now load growth is catching up and rising quickly.

Elaine used the January 2024 cold snap as a real-world example of a near-emergency caused by low temperatures, low water, gas constraints, and transmission outages that nearly led to a service disruption. Energy and Environmental Economics (E3) studies forecast possible multi-gigawatt gaps by 2030, she emphasized that the exact size depends on assumptions, but the risk is significant. While data centers are a major driver of load and short-term risk in the broader forecast, it is not data centers alone. Elaine later clarified that it is the interaction of data center growth with electrification, heat pumps, electric vehicles, and winter demand.

In the Northwest, winter reliability is more challenging than summer as multi-day shortages caused by downed powerlines are more difficult to solve than short summer peaks caused by air cooling systems. Load flexibility, especially from data centers, could materially reduce the amount of new infrastructure needed.

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From a planner's perspective, if the data center risk can be managed at the source, the remaining capacity need becomes smaller and more predictable. In the winter, short-duration batteries help, but they do not fully solve multi-day winter energy shortages. Elaine noted several possible solution categories: workload management and shifting computing, emergency curtailment, backup generation, emerging clean technologies, and policies like connect-and-manage or bring-your-own-generation.

Some technologies may come into play sooner because data centers' hyperscale demand could accelerate adoption of technologies like long-duration storage or geothermal. Elaine reiterated that the Northwest is interconnected; this means imports matter and transmission access remains a major constraint. She highlighted the need for data center participation in reliability planning, and suggested that large-load owners, operators, and equipment manufacturers should be part of the problem-solving process. To conclude, Elaine emphasized that the near-term challenge is to bridge the gap between current grid capability and future demand without overbuilding or relying on "wishful thinking."

### *Committee Discussion and Q&A*

- **Q: What is the idea behind the low data center growth forecast?**
  - A: The low forecast may simply reflect the system's inability to add enough transmission and resources quickly enough, not a belief that data center demand will disappear.
- **Q: Are the load shortages really about data centers or about electrification?**
  - A: Both; in the E3 study, the biggest driver of the load challenge was not data centers alone, but also electrification, heat pumps, EVs, and other clean-energy load growth.
- **Q: Does load flexibility mean emergency curtailment or something more?**
  - A: Flexibility can mean workload management, curtailment, backup generation, or shifting load geographically. Elaine modeled emergency curtailment in the study.
- **Q: What does "data center reliability" mean?**
  - A: It means the customer still has high reliability and, from the grid side, the facility can be curtailed or shifted when needed to help manage shortages.
- **Q: Would demand response from residential and small commercial customers solve the problem?**
  - A: While aggregating residential and small commercial demand response helps, it is not enough for a multi-day winter shortage of the type data centers can create.
- **Q: What is the value of data center flexibility to ratepayers?**
  - A: Flexibility helps planners isolate the risk and reduces the amount of new capacity that must be built. That creates more certainty and can lower system costs.

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- **Q: Are data centers or utilities building for what exists now, rather than what is needed in the future?**
  - A: There is some truth to that; many large-load operators know they may not get a gigawatt quickly unless they bring their own resources or flexibility.
- **Q: How serious is the winter shortage risk?**
  - A: The shortfall modeled in the study suggests a one-in-ten winter event; flexibility from data centers could be meaningful if that is the right scale.

### **What Oregon Can Learn from Other Examples: Case Study**

The State of Minnesota recently passed bipartisan legislation that addresses data centers, establishing a framework for clean energy goals, regulation, and incentives. Google worked together with its local utility and has a proposal being reviewed by the State. The DCAC invited these collaborators to share lessons learned and consider the questions:

- What are the components of this project?
- What worked well? What could work better or differently?
- What should Oregon take away from this experience?
- What role do they see for state government in the future?

State-Level Case Study: Pete Wyckoff, Minnesota's Deputy Commissioner of Energy, [presented](#) how that state has regulated and steered data center growth while protecting reliability, clean energy goals, and ratepayers. He described Minnesota's energy system structure as vertically integrated with a mix of investor-owned utilities, cooperatives, and municipal utilities. Energy planning is handled through integrated resource planning, transmission planning, and distribution planning.

Minnesota moved from being coal-heavy in 2010 to a majority clean system today (nuclear and renewables are counted as clean). Recent policy changes include: a 100% clean electricity standard by 2040, permitting reform to speed transmission and generation buildout, and a 2025 data center legislative package.

Minnesota's data center law creates a framework for large data centers, defined as over 100 MW, while also trying to address the 5–99 MW range so companies do not simply downsize to avoid the rules. Cost protections and clean-energy requirements include large-load tariffs, clean-energy tariff obligations, utility showings that data centers will not impede clean-energy targets, and structures designed so data centers pay their own way. Pete noted a fee on large data centers helps fund weatherization for low-income housing as a tradeoff for exemptions from some other energy conservation requirements. The state extended the data center equipment tax exemption but removed the exemption for data center electricity bills. He noted Minnesota's Commerce Department serves as the state's advocate at the Public Utilities Commission (PUC) and the PUC makes final regulatory decisions.

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The first major implementation under the new law was an agreement with the state's largest energy utility, Xcel, and Google, and involves wind, solar, long-duration storage, and a large-load tariff requiring a data center to pay for its own growth, highlighting a need to set formulas for who pays which costs. Google's clean energy supply proposal for Minnesota would bring roughly 1,400 MW of wind, 200 MW of solar, and 300 MW of long-duration battery storage, with Xcel moving ahead on the large-load tariff and a 24/7 clean-energy tariff. Service-agreement rules include 15-year electric service agreements, 80% take-or-pay / minimum payment levels, collateral, and exit fees to protect other ratepayers. Pete emphasized that the goal is to prevent other customers from being stuck with the bill if a data center does not materialize or later leaves.

In concluding, Pete framed Minnesota as a "growth pays for growth" model that uses legislation, tariff design, and utility regulation to signal to utilities, regulators, and developers that large-load growth must be tied to clean-energy investment, funding public benefits, and affordability protections.

### *Committee Discussion and Q&A*

- **Q: How were the 80% take-or-pay and 15-year terms chosen?**
  - A: The compromise was meant to protect ratepayers while still making Minnesota attractive to large customers and ensuring the customer is committed enough to be real.
- **Q: What is the role of the weatherization fee?**
  - A: It helps fund weatherization for low-income housing and is part of the state's broader approach to fairness.
- **Q: What cost protections keep the rate base from bearing the burden?**
  - A: The law requires cost allocation, large-load tariffs, upfront collateral, and service agreements so that other customers are protected.
- **Q: What does the "nachos" analogy mean?**
  - A: Pete used it to explain that a large customer who orders more than the usual amount should pay its own portion of shared costs rather than adding its extra portion for other customers to pay as common/shared expenses.

**Ellen Zuckerman**, Google's Head of Energy Market Development North & South America, [presented](#) Google's "responsible growth" approach for data centers and clean energy procurement. She introduced the company's 24/7 carbon-free electricity commitment and explained how her team works with regulators, utilities, and stakeholders to enable growth that supports that goal. From Google's perspective, data centers are not a monolith; instead, operating model, ownership structure, workload type, and meter visibility all affect energy flexibility.

Ellen highlighted:

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- Google’s efficiency performance, including a fleet-wide Power Usage Effectiveness (PUE) of 1.06.
- The company’s capacity commitment framework, including long-term contracts, minimum commitments, collateral, and exit fees to reduce speculation and protect other ratepayers.
- Their experience with clean transition tariffs, especially the Nevada example that helped accelerate 115 MW of enhanced geothermal energy.
- A follow-on Nevada pilot involving additional funding for distribution-system batteries and HVAC upgrades for low- and moderate-income customers.
- Google’s Minnesota deal with Xcel, which she described as a model that supports new clean resources including a large battery while aligning with utility planning.
- Google’s ‘demand response and flexible compute’ work in Oregon, especially with Northern Wasco County PUD, which she said helped enable broader deployment of demand response elsewhere.
- Their role in supporting new wind and other renewable projects in Oregon, including a repowering project and a power purchase agreement.

Ellen emphasized that data centers can be a catalyst for grid modernization, especially when policy frameworks require them to help fund the clean energy and transmission needed for growth. She noted that Oregon s approach under the [Protecting Oregonians With Energy Responsibility](#), or the new POWER Act ([HB 3546](#)), was a missed opportunity compared with Minnesota s more collaborative model. From her perspective, Oregon can do more to support regionalization and transmission buildout so companies can bring clean energy to their facilities more quickly. Google is a partner that wants to grow quickly but through frameworks that tie new data center load to clean energy, flexibility, and broader grid investment.

### *Committee Discussion and Q&A*

- **Q: Is Google’s PUE number global or North America-specific?**
  - A: Ellen believed the 1.06 fleet-wide figure is Google’s average; she can follow up about whether that specific graph was global or North America-specific.
- **Q: Is Google vertically integrated, and does that help efficiency?**
  - A: Data centers vary widely. Google’s owned-and-operated fleet gives it more control. Not all data center operators work that way.
- **Q: What exactly is ‘capacity credit’ in these agreements?**
  - A: The utility keeps and dispatches the resource for the grid, while Google receives environmental attribute and capacity credit under the agreement.
- **Q: Are backup generators clean?**

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- A: Google has backup generators that operate under permits and is trying to reduce reliance on diesel; the specific mix depends on the site and operating model.
- **Q: Does Google get a capacity credit for the battery and efficiency investments?**
  - A: Yes, in principle, but the exact details are still being worked out and vary by utility and regulatory regime.

### **Local Voices and Future Visions**

The DCAC heard from local energy experts, non-governmental organizations, and Tribal governments about issues and ideas they have regarding Data Centers and energy in Oregon. Three separate panels responded to the following questions:

- What are the challenges and opportunities you see/foresee?
- How could the state assist with these challenges and opportunities?
- Are there examples from other projects or states that might be illustrative for the DCAC to consider?
- What recommendations do you have for the DCAC to consider?

Panel 1 – Local Energy Expert Perspective: Hamody Hindi, Transmission Planning Manager, BPA, [presented](#) on the regional transmission system, describing it as a highly stressed planning environment. BPA is trying to adapt to rapid large-load growth, especially from data centers. BPA as part of the US DOE, is self-funded, sells power from the region s hydro system, operates about 15,000 miles of transmission line, and manages 14 transmission paths plus interties to Montana, BC Hydro, and California.

When planning transmission, BPA s framework includes the line and load interconnection queue, generator interconnection queue, transmission service queue, annual system assessment, and regional/interregional planning through the Northern Grid/WestTEC. Hamody stressed that all three external queues have recently “blown up”: Peak load in the Pacific Northwest is about 30 GW. BPA s generator interconnection queue is about 60 GW, their transmission service queue is about 60–65 GW, and their line-and-load queue is about 40 GW; roughly 30 GW of that is data centers.

Hamody explained that this creates a problem because the current queue framework was designed for incremental growth, not the scale of load and generation requests now coming in. BPA s main response, the [Grid Access Transformation](#) (GAT) project, is a three-part reform effort: 1) un-pause the transmission queue through tariff reform, 2) move to proactive planning that looks at load, generation, and transmission together, and 3) accelerate expansion by speeding up design and construction and adding BPA resources.

Hamody noted that, from his perspective, integrating data centers at the right pace can actually help reliability if it is done well. However, the region currently lacks enough

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resources and transmission to serve all requested load immediately. He emphasized that data center flexibility is a critical bridge strategy, especially using backup generation that many data centers already have onsite. Backup generation could help by letting a data center connect before transmission is fully built, help ride through transmission outages, and serve as a temporary bridge while new infrastructure is developed.

Hamody noted that the Federal Energy Regulatory Commission (FERC) and the North American Electric Reliability Corporation (NERC) are both actively working on large-load issues. BPA is following those efforts and working to align its own reforms. From BPA's perspective, data centers can't wait for the old model of slow, incremental growth; the region needs queue reform, proactive planning, more transmission, and practical flexibility/backup arrangements to bridge the gap. Data center-driven load growth is far larger than the system's traditional planning model was designed to handle.

### *Committee Discussion and Q&A*

- **Q: How do you reconcile a 30 GW load queue with a 60 GW generation queue and a 30 GW data center queue?**
  - A: The system was not designed for that scale of speculative demand, and the queue is too large for easy engineering analysis; many generation requests may drop out, but the backlog is still a major problem.
- **Q: Are backup generators actually used, or just held for emergencies?**
  - A: They can be used as a bridge, including to ride through an outage or until transmission is built, but the exact use depends on the resource and reliability conditions.
- **Q: Is the queue problem driven by NERC rules or BPA practice?**
  - A: BPA's process is guided by regulatory requirements and system practice. The exact rules are being reworked and are hard to reform.

**John McFarland**, Senior Vice President and Chief Commercial and Customer Officer, Portland General Electric (PGE), [presented](#) a perspective that data center load growth can be part of the solution, if it is structured correctly. Oregon is dealing with aging transmission infrastructure, the clean-energy transition, wildfire and weather risks, and affordability issues all at the same time. John emphasized that large loads users, such as data centers, can help pay for the transmission and grid upgrades they require, so long as clear ratepayer protections are in place, large customers are charged appropriately, and if flexibility is built into contracts.

PGE's service area has included data centers since about 1996, mostly in Washington County. They are mostly co-location facilities, not giant hyperscale AI campuses. Data centers now make up about 13% of total load in PGE's system. John stressed that flexibility is central, because PGE plans around peak capacity, and there are only about 200 hours a year when the system is truly constrained. He described a partnership with Aligned Data

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Centers and Calibrate Energy for a 31 MW battery that the customer pays for, but which PGE can dispatch for grid reliability. John also discussed work with AI companies NVIDIA, Emerald AI, and F3 to show that data centers can shift compute and reduce grid stress during reliability events or high-price periods.

PGE s work with GridCare helped unlock an additional 80 MW of existing capacity by using flexible resources and backup generation. Oregon s POWER Act and the PUC s implementation in [UM 2377](#) create a modern framework where data centers are in a separate rate class and costs are ring-fenced to them. John emphasized commitments such as up-front commitment, collateral, and cost allocation so that data center growth does not shift costs to residential or small-business customers. He also highlighted PGE s use of dynamic line ratings and advanced conductors/coatings to get more capacity from existing infrastructure.

From PGE s perspective, Oregon should use a combination of flexibility, customer-paid battery/storage, grid-enhancing technologies, and strong tariff design to allow data centers to come online without undermining affordability or reliability. PGE is supportive of data center growth, but only when the large customers pay their own way and provide flexible resources that can help the broader grid.

### *Committee Discussion and Q&A*

- **Q: How exactly does PGE use customer batteries or flexible resources?**
  - A: PGE wants fully dispatchable resources that can support the grid as well as the data center. The ideal is a battery or flexible resource that can export to the grid when needed.
- **Q: Are there three tiers of flexibility?**
  - A: Yes: first, dispatchable batteries that help the total grid; second, backup generation the utility can dispatch; and third, standard demand response / load reduction.
- **Q: Does PGE ever say no to other industrial customers because of data center load?**
  - A: No, PGE has been able to serve all other customers so far; it does require feasibility studies, line extensions, and fees before connecting new load.
- **Q: Are the data center customers paying for all of the battery or infrastructure?**
  - A: Yes, the data center customer pays the full requirement, and the added resource is typically a system asset, not a customer-owned one.
- **Q: Why did PGE support the POWER Act / UM 2377?**
  - A: The order creates a modern cost-allocation and interconnection framework, so data centers pay their own way and do not burden other existing customers.

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**Humaira Falkenberg**, Chief Energy Resource Officer, Northern Wasco County People s Utility District (NWCPUD), [presented](#) NWCPUD s experience as a local public utility that has managed data center growth for more than 20 years while keeping rates low and maintaining local accountability. She noted that the community of The Dalles sits in a strategic energy corridor along the Columbia River, with hydropower, wind, solar, transmission, fiber, and industrial infrastructure all converging there. Humaira related the area s current infrastructure decisions to the long history of the Columbia River Gorge, Celilo Falls, and the region s Tribal and cultural importance.

NWCPUD is a publicly owned utility, locally governed and accountable to its customer-owners, not shareholders. Google arrived in 2005–2006, making a major private investment and becoming Oregon s first data center in more than 20 years. The utility serves three data center campuses and still has residential rates which are among the lowest in Oregon, with a household bill example of about \$103.50/month at a representative usage level. The PUD protects customers by requiring feasibility studies, site evaluation requests, service deposits, performance assurance, separate customer classes, and contractual protections so customers creating the need pay the costs.

Humaira highlighted the NWCPUD s disciplined power portfolio strategy. She also underlined close coordination with BPA, power marketers, and infrastructure investments as keys to their success. She noted that data centers have become one of Wasco County s top taxpayers, with Google and affiliates contributing more than \$18 million since 2022. The utility s own tax contributions exceed \$1 million annually and support schools and public services. Load growth from 90 MW in January 2016 to 277 MW in January 2026 has been driven substantially by data centers.

From the NWCPUD s perspective, “one size does not fit all.” They have already been applying the kind of safeguards Oregon s POWER Act creates for investor-owned utilities. Humaira emphasized that local public accountability exists in the public power territory and urged the DCAC to recognize the PUD model as an example of responsible data center management. NWCPUD is proof that data center growth can be managed responsibly when the local utility keeps control of the process, requires strong contractual protections, and ensures the large load pays its own way.

### *Committee Discussion and Q&A*

- **Q: Has data center growth forced the PUD to turn away other industries?**
  - A: No, the utility has been able to serve all customers; the data center load has not crowded out other industries.
- **Q: Does flexibility address selling power back to the grid or just serving the data center?**

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- A: Ideally, the goal is both. However, the most important point is that the utility should have dispatch rights if the resource is to count as part of system reliability planning.
- **Q: What advice would you give another COU starting from scratch?**
  - A: Rely on other consumer-owned utilities with experience. Use strong contractual protections. Maintain close coordination with BPA. And view data center load through the lens of flexibility.

Panel 2 – NGO Perspectives: **Natalie Hathaway**, Assistant Director of Energy Programs, Energy Trust of Oregon (ET), [presented](#) how ET uses program design and supplemental funding to deliver energy savings, resilience, and grid benefits, including for data centers. ET is an independent nonprofit that administers utility customer funding for cost-effective energy efficiency, renewable energy generation, battery storage, and market transformation. They serve about 2.5 million utility customers across PGE, PacifiCorp, NW Natural, Cascade Natural Gas, and Avista, including data centers.

ET's 2026–2030 plan includes a projected 188 million kWh in savings from data centers. Natalie explained how ET works with utilities in capacity-constrained areas to reduce, offset, or defer load instead of building new lines or substations. Targeted load management works by identifying a constrained area, designing a program with the utility, increasing outreach and incentives, and running the effort for roughly 1.5 to 3 years after a planning/design period. ET often combines targeted load management with geographically targeted utility demand response to maximize peak reduction and hedge risk.

Natalie reviewed ET-supported solar and storage microgrids and community resilience projects funded by public-purpose charge dollars and a FEMA grant. They expect to fund about 100 solar/storage studies for Oregon counties and Tribes over the next three years. She highlighted an example project, a Meals on Wheels solar-plus-storage project in Multnomah Village, with a \$128,000 incentive and estimated annual savings of \$23,000. ET weaves grants and contracts with ratepayer-funded programs to expand access to efficiency, renewable energy, storage, and critical home repairs. The 2026–2030 Complementary Funding Scale plan includes over \$100 million in complementary funding.

ET is watching the PUC's implementation of the new large-load surcharge and, depending on how the funds are directed, they could help administer programs for efficiency, critical home repairs, and distributed energy resources. Energy Trust is a "delivery vehicle" for efficiency, resilience, and supplemental funding programs that can help reduce load, improve reliability, and support communities as data center demand grows.

### *Committee Discussion and Q&A*

- **Q: How will Energy Trust's data center work interact with local communities if surcharge money is pooled?**

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- A: It depends on how the PUC directs the money; Energy Trust can administer it centrally or work through community-based partners.
- **Q: Is that more efficient than direct local deployment?**
  - A: Energy Trust already works with 25 community-based organizations and could coordinate local administration either way; they do not claim one model is always more efficient.
- **Q: Does Energy Trust work with existing data centers on efficiency?**
  - A: Yes, Energy Trust has a commercial program for data centers of all sizes and expects significant kWh savings over the next five years.
- **Q: Do your efficiency measures reduce grid load or only data center facility load?**
  - A: The organization is evaluating that question now and wants to understand both system-wide and facility-specific savings.
- **Q: Do your programs work inside the data center itself, or only on the shell?**
  - A: Energy Trust works with both.

**Joshua Basofin**, Clean Energy Program Director, Climate Solutions (CS), [presented](#) CS's perspective of the risks data center growth poses to Oregon's clean energy, reliability, and affordability goals, plus a set of policy solutions. He cited roughly 4 GW of data center load in the Pacific Northwest, which is about five times Seattle's electricity use. This presents a challenge because Oregon has an aging and constrained grid, no fully integrated regional transmission organization, a still-fragmented market structure, and slow siting/permitting for generation and transmission.

Joshua tied the issue to Oregon's main climate and energy policies, including HB 2021, the Climate Protection Program, and the Transformational Integrated Greenhouse Gas Reduction (TIGR) Model. He noted that rapid data center growth could make it harder to meet Oregon's 2035 decarbonization goals and could increase the chance of backsliding on HB 2021 compliance. He referred to consumer-owned utility territories where emissions can rise when utilities rely on unspecified market purchases rather than new clean resources.

CS offered five solutions:

### 1. Battery storage and grid flexibility

- Use batteries and flexible load to reduce peak demand and avoid new gas "peakers."
- Even small levels of load flexibility can materially reduce the need for new generation.

### 2. Bring your own clean energy

- Require or encourage data centers to develop new clean generation rather than just buying existing resources.

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- The goal should be to expand the market, not simply reassign existing clean energy.

### 3. Efficient cooling and design

- Improve server efficiency, liquid immersion cooling, waste-heat reuse, and outside-air cooling wherever possible.
  - Examples from Seattle, Virginia, Denmark, and Microsoft research demonstrate efficiency gains and emissions reductions.

### 4. Funding for residential efficiency and distributed energy resources

- Use fees on data centers to fund low-income home repairs, heat pumps, rooftop solar, batteries, and other measures that free up grid capacity.
  - Consider a fee structure similar to Minnesota's approach.

### 5. Data transparency

- Require regular public reporting of data center energy use, water use, peak demand, emissions, flexibility capability, and backup systems.
  - Standardized monthly reporting would improve accountability and policy design.

To conclude, Joshua emphasized that Oregon can still accommodate data center growth, but only if the state pairs it with strong clean-energy requirements, flexibility, transparency, and investments that also reduce load elsewhere on the system.

#### *Committee Discussion and Q&A*

- **Q: Is the data center growth problem mostly about AI or something broader?**
  - A: The problem includes AI, but also includes the broader load-growth challenge from cloud computing, electrification, and an underbuilt infrastructure.
- **Q: Why does Oregon need a statewide policy if HB 2021 already exists?**
  - A: HB 2021 does not cover consumer-owned utility territory, so statewide consistency is still needed.
- **Q: Are battery-backed and flexible data centers a real solution?**
  - A: Yes, especially if paired with clean energy, grid support, and emergency curtailment.

**Gabe Tabak**, Head of Energy Policy, Verrus Data / Utilize Coalition, [presented](#) on Verrus concept for a grid-flexible data center design and the broader idea that the existing grid can be used more efficiently. From Verrus' perspective, data centers can be designed to use less water, integrate batteries, and respond to the grid needs discussed throughout the day.

Verrus uses advanced closed-loop cooling that is designed to dramatically reduce water consumption as compared with traditional designs. The battery system is built into the facility's electrical architecture, functioning almost like an internal microgrid. Because of this design, a facility can respond quickly to grid signals and help manage load. Gabe

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emphasized this creates very fast flexibility, including the ability to help with frequency response, which he linked to recent reliability concerns in Virginia and a NERC alert. Additionally, the design is meant to give customers more usable compute capacity from the same interconnection footprint by reducing headroom and cooling overhead. The battery and operational flexibility can act as a grid-responsive load that shifts charging away from peak hours and reduces stress on the system. From Verrus perspective, an internal microgrid approach could help absorb frequency excursions instead of worsening them.

Gabe also spoke on behalf of The Utilize Coalition, which includes companies like Google, Tesla, Span, and Renew Home, and advocates for using the existing grid more effectively. He noted research suggesting the grid is only about 50% utilized on average and emphasized that increasing utilization by even 10% could save billions nationally; adding load in a flexible way can help spread fixed grid costs over more customers, potentially lowering rates if the system is used more efficiently. They support a model for water-efficient, battery-enabled, and grid-responsive data centers design, while making the case that better use of existing grid infrastructure can support affordability and reliability.

### *Committee Discussion and Q&A*

- **Q: Who is a “customer” in Verrus’ model?**
  - A: Gabe clarified this means tenants or users leasing space in a data center, not retail utility customers.
- **Q: Can a flexible data center work at any site?**
  - A: The concept is not limited to one customer type, but the exact design depends on the local utility and electrical topology.
- **Q: Is the flexibility only useful for short outages or also for longer events?**
  - A: The model can help with grid signals and frequency response, especially through battery integration and rapid response.

Panel 3 – Tribal Government Perspective: Trustee Lisa Ganuelas, Confederated Tribes of the Umatilla Indian Reservation (CTUIR), [spoke](#) on behalf of the Tribes concerns regarding how data center expansion affects Tribal lands, water, salmon, and Treaty Rights. She noted that the DCAC session was not formal consultation and asked that true government-to-government consultation occur with the Governor and relevant agencies.

Trustee Ganuelas emphasized the Tribes rights to fish and the cultural importance of salmon and water, highlighting that water is the Tribes first food. She cautioned that hyperscale data centers and related infrastructure along the Columbia River and in ceded lands create significant risks for Tribal resources. Data centers can affect water quantity and quality, and their noise, heat waste, and contaminants may harm surrounding communities and water sources. The Trustees urge a “seven-generation” planning

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perspective, stating that energy and water planning must account for future Tribal needs and Tribal economic development.

Trustee Ganuelas also noted that air-cooled data centers may reduce water use, but they require much more electricity, which can strain the grid and burden Tribal and other local communities. The Tribes are concerned about possible co-location of data center microgrids with small modular nuclear reactor projects; any such proposal would require government-to-government consultation due to waste and transportation impacts across Tribal lands. From the CTUIR s perspective, data center growth is a major Tribal sovereignty, water, and Treaty Rights issue, not just an energy-planning issue.

**Christine Golightly**, Policy Analyst, Columbia River Inter-Tribal Fish Commission (CRITFC), [presented](#) CRITFC s Tribal and policy framing on how data center growth affects the Columbia River, salmon, and Tribal Treaty Rights. **Ed Sheets**, Ed Sheets Consulting, (co-presenting with CRITFC) focused on the technical fish and hydropower impacts of data center-driven load growth.

Christine highlighted the baseline burden already carried by Tribes from the Columbia River hydropower system: fragmented salmon habitat, altered flows, warmer water, and turbine mortalities for salmon. Salmon population status shows that many runs are far below historic abundance and are still not recovering to healthy levels. [CRITFC s 2022 Energy Vision](#) prioritizes conservation and efficiency first as the most fish-friendly energy resources. She reviewed a map of planned and existing data centers overlaid on reservations and ceded lands, to show where new load and related infrastructure intersect with Tribal territories and Treaty fishing areas.

Ed referenced an energy study from PAE (a leading sustainable engineering and design firm in the region) showing that energy needed for data center cooling can significantly increase peak demand, while evaporative cooling uses less electricity but more water. Large load users should be asked to reduce demand during emergencies and peak periods to protect both the grid and fish. Peak shortages in both winter and summer seasons can create conditions where salmon protections are compromised. Christine urged the DCAC to prioritize conservation, efficiency, and clean energy development that does not worsen impacts to Tribes.

Ed added that the Columbia River hydro system already stresses salmon, as dams fragment habitat, warm the water, alter flows, and cause turbine mortality. Data center growth matters for fish: more demand increases the chance of power emergencies, which can reduce fish-protective spill and alter other dam operations. They pointed to NPCC forecasts showing several thousand megawatts of additional load by 2030, making the reliability and fish-protection challenge even harder than it is today.

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From Christine and Ed's perspectives, data centers remain a serious additional stressor on an already damaged river system. They reiterated the recommendation for the DCAC to prioritize conservation, flexibility, emergency curtailment, and Tribal protections.

### *Committee Discussion and Q&A*

- **Q: How often do the dangerous shortages happen?**
  - A: The most severe shortages appear primarily during winter and summer peak periods. Flexibility could help avoid the need for emergency operations.
- **Q: How does summer vs. winter matter for fish?**
  - A: Summer flows are essential for juvenile and adult fish migration, while winter is where major resource adequacy risks are most likely.
- **Q: What about Aquifer Storage and Recharge or similar water storage approaches?**
  - A: It is site-specific and depends on local hydrology; Yakama is an example of how altering floodplain recharge can affect river temperature and fish conditions.
- **Q: How often do emergency river operations happen?**
  - A: Fish-protective operations have been interrupted many times during the past five years for reliability-related reasons; exact duration data could be provided separately if that would be helpful.

### **Public Comment & DCAC Listening**

The DCAC offers members of the public an opportunity to provide public comments focused on the topic of the session in 2–3-minute timeframes. DCAC staff are compiling all written public comments for inclusion as an appendix in the DCAC's final Report to the Governor. DCAC heard public comments, listed in the order they spoke, from: Chris Robertson, Courtney Lee, Ben Brint, Dan Diorio, Maleek McKenzie, Katie Chamberlain, John Perona, Cole Souder, Mike Powers, Hannah Shooting Bear, Lyn Handlin, and Brittney Jones.

### **DCAC Roundtable: Connecting the Dots**

DCAC members reflected together and with Edith and Elaine, present to answer lingering and emerging energy questions on today's themes, and the overall DCAC process at large:

- **What is actually driving data center development?:** One DCAC Member noted that some growth appears to be standard cloud expansion and not AI, while another said AI likely will be a major driver over the next decade. Several Members said the DCAC needs more transparency about what is behind the load.
- **“Should we build them?”:** DCAC Members noted that this seems to be a question posed by members of the public. Yet, the Committee's charge is not to debate the broad social value of data centers in general, but to focus as the Governor requested on energy, affordability, reliability, siting, and policy protections.

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- **Need for better metrics:** a DCAC Member asked Elaine and Edith whether there are better energy metrics than just MW/MWh. The discussion turned to needing more granular information about load profiles, flexibility, and what portion of demand can actually shift.
- **Flexibility:** DCAC Members returned to flexibility as a central theme, including in their discussions curtailment, backup generation, load shifting, flexible compute, and battery-backed systems. Several Members said flexibility should be treated as an overarching principle, even if the exact definition is still evolving.
- **Tiered flexibility ideas:** one DCAC Member suggested the Committee might think in tiers: (1) dispatchable batteries that benefit the whole grid, (2) data center backup generation that can be called on by the utility, and (3) traditional demand response that simply reduces load.
- **Resource priority:** DCAC Members discussed whether batteries and backup systems should serve only the data center or also be dispatchable for the broader grid. A question that would have to be answered at some point is: who would get priority if the grid and the data center both need the resource?
- **Data centers / other customer priorities:** one Member raised the question: should society prioritize one customer's compute needs over another's needs. The group agreed their focus should not be on ranking end users, but acknowledged the question is important for others (e.g., the Governor or legislature) to take up later.
- **Existing grid underutilization:** DCAC Members discussed whether the grid is being underused and whether data centers are building to what the grid can supply today rather than what they want in the future.
- **Transmission / planning barriers:** several Members said that current transmission and interconnection rules seem to force overbuilt "perfect transmission rights" while creating bottlenecks. They asked why grid-enhancing technologies and new operating practices have not been implemented faster. Utility planning rules, transmission rights, and regulatory incentives all play a role in slow deployment.
- **BPA's role / N-minus-1 planning:** one Member asked whether constraints are driven by NERC rules or utility-by-utility practice. The response was that BPA is the major transmission operator in the region and reforms are difficult but underway.
- **Flexibility for winter shortages:** Elaine's modeling about the region facing a one-in-ten winter shortage scenario was discussed. DCAC members thought even partial flexibility from data centers could be meaningful in those periods.
- **Data center storage and batteries:** the DCAC was curious about the Minnesota and PGE examples where batteries are owned by the utility or dispatched for the grid. Are shared batteries better than batteries used for a single facility?
- **Urban/rural and public power differences:** the DCAC noted public utility districts like the NWCPUD, and consumer-owned utilities (COUs) have local accountability/governance and may need different policy treatment than investor-owned utilities (IOUs).

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- **Statewide policy consistency:** several Members worried if one utility territory sets strong protections and another does not, data centers may shift to the weaker territory. Does Oregon need more consistent statewide principles?
- **Tribal and local impacts:** DCAC Members acknowledged the tensions between local development benefits and broader Tribal, regional, and environmental harms, especially around the Columbia River and ceded lands.

Throughout the roundtable discussion, data center energy flexibility was one of the most significant recurring themes, along with the Committee s desire for more granular data on what data centers are doing and how much energy they can shift or curtail. The DCAC also recognized the tension between local utility governance, statewide climate goals, and regional transmission constraints. One Member suggested a more formal industry committee or regular dialogue structure for utilities and data centers; the Committee thought this seemed useful and worth considering. They concluded with general agreement that affordability, cost allocation, and the POWER Act implementation needs deeper discussion at the next meeting.

### DCAC Follow-Up Items:

- Connect with DEQ on how they track unspecified power and how they account for utility-reported emissions.
- Confirm whether HB 2021 applies to data centers served through electric co-ops/consumer-owned utility arrangements and wheeled power structures.
- Verify details of the renewable portfolio standard, including RECs, geographic eligibility, and any limits on unbundled credits.
- Investigate BPA’s question of whether data centers receive lower rates and how large single loads are treated under BPA rules.
- Review follow-up information: backup generation details from by Ellen/Google, permitting and related transparency requirements from DEQ.
- Verify details on data center flexibility options, including curtailment duration, load shifting from Elaine/Sylvan Energy, and dispatchable backup batteries from Gabe/Verrus Data.
- Consider whether a statewide reporting framework for data centers is feasible, including energy use, water use, emissions, peak demand, and backup resources.
- Explore how the POWER Act and PUC implementation may be extended or adapted across IOU and COU territories.

To conclude the session, DCAC was joined by **Bob Jenks**, Executive Director of the Citizens Utility Board, to help bridge today s energy discussion to the next session on Energy Affordability and Revenue/Taxation. Bob explained that the POWER Act s purpose is to separate data centers into their own class, so they pay their own energy costs instead of shifting those costs onto other customers. He explained that utilities assign costs by

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customer class, and that putting data centers in their own class is key to fair cost causation. The data center industry may challenge both the PUC's implementation and the law itself in court, so the protections should not be assumed to be permanent. He noted that adding hundreds of megawatts of load can raise wholesale electricity prices for everyone. Batteries can save large amounts of money on typical winter days by shifting load off peak, but he concurred that short-duration batteries do not solve the hardest multi-day winter shortages.

Bob highlighted manufactured-home weatherization and replacement as a key affordability opportunity, especially in eastern Oregon, where winter electric bills can be extremely high. Affordability gains often require combining ET funding, BPA money, homeowner contributions, and other sources. He framed the next session's discussion to focus on who pays, how to protect existing customers, and how to use efficiency and load reduction to improve affordability while serving data center growth.

### **Next Steps and Action Items**

- The next DCAC meeting will be on June 26, 2026, focusing on data centers impacts on **AFFORDABILITY & REVENUE/TAXATION issues**, from 9 am – 4:00 pm PDT. **[Facilitator's note: due to agenda topics, this meeting now will be 8:30-5 pm]**
- Members of the public may submit subject matter-related comments via the [public comment channel](#).
- **ACTION: Oregon Dept. of Energy / DCAC Staff:** Post slides, meeting materials, and session recording to the ODOE website — *due asap / ongoing*.
- **ACTION: DCAC Chairs & Staff:** Schedule and announce online Public Listening Session #3 — *asap*. **[Facilitator's Note: following the session on 6/2/26 with technical accessibility issues, a third online General Public Listening Session was announced to ensure more voices and perspectives are heard]**

### **Adjourn Public Meeting**

Committee Co-Chairs reminded attendees about the next public listening session and the upcoming meeting on affordability and taxation. In closing, Donna thanked the speakers, public commenters, Committee Members, and staff for their thoughtful, respectful, and engaged discussion on this important topic and adjourned the session.

*This summary has been prepared by the Facilitation Team to help the DCAC track issues discussed and follow-up actions between sessions. All DCAC Members reviewed the summary and offered refinements that have been integrated into this final version.*

*Questions or comments may be sent to [colby@dsconsult.co](mailto:colby@dsconsult.co).*

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*Participants Present for All or Part of Session 4 (in alphabetical order):*

DCAC Members: **Dan Dorran, Greg Dotson, Bill Edmonds, Margaret Hoffmann, Michael Jung, Tim Miller, and Jean Wilson.**

Speakers: **Joshua Basofin** (Climate Solutions), **Edith Bayer** (Oregon Department of Energy), **Humaira Falkenberg** (Northern Wasco County People s Utility Department), **Trustee Lisa Ganuelas**, (Confederated Tribes of the Umatilla Indian Reservation), **Christine Golightly** (Columbia River Inter-Tribal Fish Commission), **Elaine Hart** (Sylvan Energy Analytics), **Natalie Hathaway** (Energy Trust of Oregon), **Hamody Hindi**, (Bonneville Power Administration), **Bob Jenks** (Citizens Utility Board), **John McFarland** (Portland General Electric), **Ed Sheets** (Ed Sheets Consulting), **Gabe Tabak** (Verrus Data / Utilize Coalition), **Pete Wyckoff** (State of Minnesota), and **Ellen Zuckerman** (Google).

Technical Support: **Chelsea Dobbin** (University of Oregon), **Lexi Hernandez** (University of Oregon), **Maeve Hogan** (Committee Staff, environmental planner), **Michael Kluz** (Committee Staff), **Nate Redinbo** (Portland State University), **Brenton Riddle** (University of Oregon), and **Douglas Quirke** (University of Oregon).

Facilitation Team: **Donna Silverberg**, facilitator, and **Colby Mills**, facilitation & online support, DS Consulting.