Report on Reducing Barriers to Clean Energy Deployment

OREGON DEPARTMENT OF ENERGY

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Author's Note: How This Report Fits In

Executive Order 25-29 section I(2) directs the Oregon Department of Energy and other state agencies to:

> *develop and implement a coordinated, proactive approach to streamline land use and environmental reviews, siting and permitting, and interconnection processes for clean energy projects, energy storage, and associated transmission and distribution infrastructure, with particular focus on those that contribute to energy affordability and reliability.*

To accomplish this, EO 25-29 directs agencies to pursue six initiatives:

- The development of Department of Land Conservation and Development's report, Accelerating Clean Energy Deployment Through Oregon's Land Use Planning Framework (July 2026), on "opportunities and barriers to clean energy development under Oregon's land use planning goals;"
- The development of this Report on Reducing Barriers to Clean Energy Deployment, which examines "barriers to the permitting, construction and interconnection of clean energy projects and associated infrastructure" over 20 megawatts in size and recommends further investigation of facilities 20 MW or smaller;
- The evaluation of "opportunities to streamline or increase the efficiency of siting and permitting processes" within state jurisdiction, particularly ODOE's Report on Siting and Permitting Large-Scale Electricity Infrastructure (Sept. 2026) on the Energy Facility Siting Council's siting and permitting processes;
- A future convening to "review progress toward achieving HB 2021's clean energy targets and explore opportunities for public-private partnerships to facilitate development of clean energy infrastructure;"
- The development of "a framework for strategic transmission siting" for consideration by the Oregon State Legislature in 2027; and
- A statewide goal of deploying 8 gigawatts of energy storage capacity in Oregon by 2045.

As one of the six initiatives, this report has a targeted scope. It does not examine the subject of the other initiatives, including Oregon's land use planning goals, EFSC's siting and permitting processes, or transmission siting generally. ODOE understands these six initiatives are intended to work together to get clean energy projects built. To that end, ODOE has endeavored throughout this report to acknowledge key findings and policy recommendations from the other initiatives, or to highlight where another initiative may soon provide relevant findings and recommendations.

REPORT ON REDUCING BARRIERS TO CLEAN ENERGY DEPLOYMENT – 2026

Executive Summary

The Oregon Energy Strategy identified five pathways that together represent the direction Oregon needs to take to meet its energy policy objectives – including an energy transition that will deliver clean, reliable, and affordable energy to all Oregonians. The five pathways are: (1) Energy Efficiency, (2) Clean Electricity, (3) Electrification, (4) Low-Carbon Fuels, and (5) Resilience. The second pathway, Clean Electricity, highlights the need to increase transmission capacity to access out-of-state generation resources as well as the potential benefits – from energy resilience to local economic development – of deploying more clean energy generation within Oregon.

Executive Order 25-29 directs action to implement the Oregon Energy Strategy. For the Clean Electricity pathway, EO 25-29 directs agencies to undertake six initiatives, including this report, to "get clean energy projects built." While other EO 25-29 initiatives focus on transmission, land use, and siting, this report examines barriers to new generating facilities. Specifically, this report looks at challenges affecting wind, solar, and battery storage facilities over 20 megawatts in size that already hold a site certificate from the Energy Facility Siting Council or a county permit. As of EFSC's September 2026 monthly status update, there is a total of 3,036 MW of these clean energy projects with approved site certificates from EFSC that are not yet under construction and another 8,012 MW that have applied or plan to apply for a site certificate from EFSC.

Barriers

Based on ODOE's research, cross-agency coordination, and analysis of public comments, this report provides an inventory of seven barriers to approved in-state projects getting built:

- **Cost**, including the challenges of timing investments for reliability with the pressing concerns of energy affordability;
- **Unexpected delays**, such as the federal administration's illegal freeze on new wind energy facilities;
- **Limited cross-jurisdictional coordination**, including federal-to-state and agency-to-agency alignment;
- **Limited availability of equipment and supplies**, such as supply chain constraints for transformers;
- **Limited staffing capacity** that can hinder the efficiency of permitting authorities, including Tribes, federal entities, state agencies, and local jurisdictions such as counties;
- **Unmet workforce needs**, including the limited employment opportunities for current skilled and trained workers, which deters workforce growth; and
- **Limited grid capacity**, which is a nationwide challenge that is imposing higher costs and longer timelines on facility developers and, ultimately, on customers.

These barriers are significant. There is no simple solution to overcome them, and many potential actions pose trade-offs. As Oregon looks to accelerate clean energy deployment overall, the challenge for state and local policymakers is to identify and advance those energy facilities whose total benefits outweigh their total costs. ODOE plays an important supporting role here, consistent with its mission to responsibly balance energy needs and impacts for current and future generations.

Recommendations to Overcome Barriers

ODOE recommends six policy actions to overcome the above barriers:

- **Consider providing financial incentives to new clean energy facilities that provide significant localized benefits to Oregon communities.** Providing state financial incentives would enable in-state facilities to offer lower, more cost-competitive bids, enter contracts to supply Oregon utilities, and pursue construction. Ultimately this would provide more supply that can reduce upward pressure on electricity rates and support economic development. There are other policy interventions that could overcome barriers to Oregon energy projects that provide community benefits without using tax dollars, but they risk further increasing costs on utility customers.
- **Support the expansion and upgrading of critical transmission infrastructure.** Coordinated action is needed to address the largest investment needs to deploy clean energy, such as transmission upgrades. Implementing EO 25-29's new framework for strategic transmission siting is one critical aspect of addressing Oregon's grid needs.
- **Monitor for, and defend against, market-disrupting federal policy changes.** Oregon is actively engaging Congress and the courts on concerns and opportunities. Further advocacy, including litigation, may be necessary in the coming months and years.
- **Prioritize actions that support Oregon's existing and future clean energy workers.** Addressing the unmet needs of Oregon's current clean energy workforce is critical to achieving the full potential benefits of clean energy deployment in the coming years, especially at the local scale. ODOE's forthcoming Workforce Needs Assessment will provide more specific recommendations on this topic.
- **Increase state agency capacity as needed to meet permitting needs and provide statewide technical assistance.** Increased state agency capacity is needed to implement recommendations across EO 25-29 initiatives, such as the proposed improvements to the Energy Facility Siting Council's process noted in ODOE's Report on Siting and Permitting Large-Scale Electricity Infrastructure and the Department of Land Conservation & Development's recommendation to "Develop guidance for local government implementation of HB 4031" for new projects that are eligible to opt out of EFSC's process.
- **Convene recurring forum discussions on cross-jurisdictional topics, such as opportunities to align siting, interconnection, and procurement processes, to support further conversation and actions on these topics.** These discussions should include a diverse range of perspectives from inside and outside of government. With adequate staffing, ODOE could convene a forum every year or every few years to advance cross-jurisdictional coordination. ODOE recommends the first forum explore the interconnection reforms currently being implemented and their potential effects on other processes.

Complementary Recommendations

The above recommendations aim to overcome the identified barriers, but there are limitations to how quickly new large-scale facilities can be built. Considering what else might be done, ODOE offers the following complementary recommendations:

- **Advance energy efficiency, load flexibility, and small-scale energy resources across the state, which may be deployable faster than large-scale facilities.** ODOE intends to focus on clean energy facilities under 20 MW in size as it continues investigating barriers to clean energy deployment and potential policy recommendations to overcome them. As part of this evaluation, ODOE intends to continue evaluating supply chain constraints and changing federal trade policies.
- **Encourage regional cooperation and the advancement of wholesale energy markets.** Once sufficient data is available, ODOE intends to examine whether new day-ahead markets reveal additional opportunities for targeted state actions or incentives to advance new generation. If so, ODOE will propose policy recommendations.
- **Consider updating and harmonizing changes to existing energy statutes as part of any potential action on cap and invest legislation.** If policymakers decide to pursue cap and invest legislation, as recommended by the Governor's Prosperity Council, then ODOE recommends the conversation include consideration of updating and harmonizing existing statutes, such as Oregon's Renewable Portfolio Standard. ODOE provides questions for policymakers to consider and stands ready to support policymakers with technical assistance and analysis on these and any other energy-related topics.

Summary Tables

Below are three summary tables of the inventoried barriers and the six policy recommendations to address them.

Table 1. Inventory of Seven Barriers to Clean Energy Deployment

Barrier	Permitting	Construction	Interconnection
Cost	Yes	Yes	Yes
Unexpected delays	Yes	Yes	Yes
Limited cross-jurisdictional coordination	Yes	-	Yes
Limited availability of equipment and supplies	-	Yes	Yes
Limited staffing capacity	Yes	-	-
Unmet workforce needs	-	Yes	-
Limited grid capacity	-	-	Yes

Table 2. Policy Recommendations to Overcome Barriers

Recommendation	Barriers It Could Help Address
Consider providing financial incentives to new clean energy facilities that provide significant localized benefits to Oregon communities.	• Cost • Limited cross-jurisdictional coordination • Unmet workforce needs • Limited grid capacity
Support the expansion and upgrading of critical transmission infrastructure	• Cost • Unexpected delays • Limited cross-jurisdictional coordination • Limited grid capacity
Monitor for, and defend against, market-disrupting federal policy changes.	• Cost • Unexpected delays • Limited cross-jurisdictional coordination • Limited availability of equipment and supplies • Limited grid capacity
Prioritize actions that support Oregon's existing and future clean energy workers.	• Cost • Unmet Workforce Needs
Increase state agency capacity as needed to meet permitting needs and provide statewide technical assistance.	• Cost • Unexpected delays • Limited cross-jurisdictional coordination • Limited staffing capacity
Convene recurring forum discussions on cross-jurisdictional topics, such as opportunities to align siting, interconnection, and procurement processes, to support further conversation and actions on these topics.	• Cost • Unexpected delays • Limited cross-jurisdictional coordination • Limited grid capacity

Table 3. Inventory of Barriers and the Recommendations to Overcome Each

Barrier	Recommendations
Cost	• Provide incentives • Support transmission investments • Address federal policy changes • Support clean energy workers • Increase permitting staffing capacity • Convene forums on cross-jurisdictional topics
Unexpected delays	• Support transmission investments • Address federal policy changes • Increase permitting staffing capacity • Convene forums on cross-jurisdictional topics
Limited cross-jurisdictional coordination	• Provide incentives • Support transmission investments • Address federal policy changes • Increase permitting staffing capacity • Convene forums on cross-jurisdictional topics
Limited availability of equipment and supplies	• Address federal policy changes
Limited staffing capacity	• Increase permitting staffing capacity
Unmet workforce needs	• Provide incentives • Support clean energy workers
Limited grid capacity	• Provide incentives • Support transmission investments • Address federal policy changes • Convene forums on cross-jurisdictional topics

Tribal Land Acknowledgement

ODOE acknowledges that Indigenous Tribes and Bands have been with the lands that we inhabit today throughout Oregon and the Northwest since time immemorial and continue to be a vibrant part of Oregon today. We would like to express our respect to the First Peoples of this land, the nine federally recognized Tribes in Oregon:

- Burns Paiute Tribe
- Confederated Tribes of Coos, Lower Umpqua & Siuslaw Indians
- Confederated Tribes of Grand Ronde
- Confederated Tribes of Siletz Indians
- Confederated Tribes of the Umatilla Indian Reservation
- Confederated Tribes of the Warm Springs Reservation
- Coquille Indian Tribe
- Cow Creek Band of the Umpqua Tribe of Indians
- The Klamath Tribes

As the state engages in discussions about deployment of energy infrastructure in Oregon, it is important that we recognize and honor the ongoing legal and spiritual relationship between the land, plants, animals, and people indigenous to this place we now call Oregon. The interconnectedness of the people, the land, and the natural environment cannot be overstated; the health of one is necessary for the health of all. We recognize the pre-existing and continued sovereignty of the nine federally recognized Tribes who have ties to this place and thank them for continuing to share their traditional ecological knowledge and perspective on how we might care for one another and the land, so it can take care of us.

We commit to engaging in a respectful and successful partnership as stewards of these lands. As we are obliged by state law and policy, we will uphold government-to-government relations to advance strong governance outcomes supportive of Tribal self-determination and sovereignty.

List of Acronyms and Abbreviations

Acronym/Abbreviation	Complete Name
BA	Balancing Authority
BPA	Bonneville Power Administration
CAISO	California Independent System Operator
DLCD	Department of Land Conservation and Development
EDAM	Extended Day-Ahead Market
EFSC	Energy Facility Siting Council
EO	Executive Order
FERC	Federal Energy Regulatory Commission
GW	Gigawatt
HB	House Bill
ISO	Independent System Operator
LBNL	Lawrence Berkeley National Laboratory
LCDC	Land Conservation and Development Commission
MW	Megawatt
NERC	North American Electric Reliability Corporation
NWPCC	Northwest Power & Conservation Council
ODOE	Oregon Department of Energy
OPUC	Oregon Public Utility Commission
OSU	Oregon State University
PNUCC	Pacific Northwest Utilities Conference Committee
PPA	Power purchase agreement
PV	Photovoltaic

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REPORT ON REDUCING BARRIERS TO CLEAN ENERGY DEPLOYMENT – 2026

Overview

The Need for Clean Energy Deployment in Oregon

Oregon's current supply of electricity generating facilities will not be sufficient to meet rapidly rising demand for electricity from various sources, including data centers and electrification. More resources are needed. The Oregon Energy Strategy recognizes this imperative: "To reliably serve Oregon's current and growing electricity needs, the electricity system must expand." Other reports similarly highlight this as a pressing near-term priority for Oregon and the Pacific Northwest, including:

- The Northwest Power and Conservation Council's Pacific Northwest Power Supply Adequacy Assessment for 2029 (August 2024), which states "Over the next five years across the Pacific Northwest, significant load growth and changing system dynamics are creating risks for maintaining power system adequacy."
- The Western Electricity Coordinating Council's 2025 Western Assessment of Resource Adequacy (January 2026), which states "The West's planned resource buildout will not keep up with anticipated load growth over the next decade, particularly in the Basin and Northwest subregions … If planned resource additions are delayed or canceled, the reliability risk becomes greater."
- The North American Electric Reliability Corporation's Long-Term Reliability Assessment (January 2026), which states for the Northwest region, "Rapid forecasted demand growth is driving the need for more resources. Resource additions nearing completion are predominantly solar PV, battery, and wind, leading to a more variable resource mix. Periods of unserved energy are projected for both summer and winter."
- The Pacific Northwest Utilities Conference Committee's 2026 Northwest Regional Forecast (April 2026), which states "Utilities are actively pursuing a range of strategies to meet growing demand, including energy efficiency, demand response, load flexibility, distributed energy resources, new large-scale generating resources and expanded transmission. However, while utility plans identify significant future resource needs, new generating resource additions are falling short of the scale and pace required, constrained by transmission limitations, long supply chain lead times and siting and permitting challenges that slow project development."

These and other studies are sounding the alarm: load growth is outpacing resource development.[i]

The Oregon Energy Strategy highlights the need to increase transmission capacity to access out-of-state generation resources as well as the potential benefits – from energy resilience to local economic development – from deploying more clean energy generation within the state. The Oregon Energy Strategy calls for the state to facilitate energy infrastructure enhancement and expansion while avoiding, minimizing, and mitigating negative impacts on Tribal trust resources, energy burden, natural and working lands, cultural resources, and communities (Clean Electricity Policy 2a). As one near-term action (Electricity Action 5), the Oregon Energy Strategy recommended investigating why some clean energy facilities have received approved site certificates from the Energy Facility Siting Council only to wait months or years to begin construction, or simply abandon their project. To comply with Governor Kotek's Executive Order 25-29 section I(2)(a), the Oregon Department of Energy, in coordination with

[i] For more information, please see Appendix A, "Additional Materials," and Appendix B, "Oregon's Electricity Needs."

the Public Utility Commission and the Department of Land Conservation and Development, pursued the Oregon Energy Strategy's recommended investigation through the development of this report.

The Scope of this Report

EO 25-29 section I(2)(a) directs ODOE, in coordination with the Oregon Public Utility Commission and the Department of Land Conservation and Development, to "inventory, assess, and analyze barriers to the permitting, construction and interconnection of clean energy projects and associated infrastructure" and "recommend actions to overcome those barriers while balancing opportunities for public participation with the state's interest in accelerating deployment of clean energy infrastructure that benefits Oregon ratepayers."

ODOE has adopted two definitions to target this report's scope. First, ODOE defines "clean energy projects and associated infrastructure" to mean proposed clean energy facilities that received siting approval from EFSC (via an approved site certificate) or from a county, but are not built or under construction. Specifically, this report focuses on proposed wind, solar, and battery storage facilities with a nameplate capacity over 20 megawatts. This focus is practical in nature. During this report's development, no other type of proposed clean energy facility was under review at EFSC or held an approved site certificate without being built or under construction.[ii] As of EFSC's September 2026 monthly status update, there is a total of 3,036 MW of these clean energy projects with approved site certificates from EFSC that are not yet under construction and another 8,012 MW that have applied or plan to apply for a site certificate from EFSC.

ODOE recognizes some clean energy facilities, such as rooftop solar and behind-the-meter battery storage, likely face unique barriers. ODOE plans to further investigate them, as discussed later in the section Actions to Overcome Barriers. Similarly, some clean energy technologies are not yet commercially available. To comply with EO 25-29 section I(3)(b), ODOE will report progress and key findings on opportunities for advanced and emerging carbon-free energy technologies in the forthcoming 2026 Biennial Energy Report. Those technologies are not within the scope of this report.

Second, ODOE defines "barriers to the permitting … of clean energy projects" to include consideration of barriers that may arise in permitting processes that are outside EFSC's jurisdiction and are not required to be completed prior to receipt of an approved site certificate from EFSC or an approved county land-use permit. For example, it includes consideration of barriers that may arise in certain federal permitting requirements. However, it does not examine any aspect of EFSC's processes (including site certificate amendment requirements), nor any aspect of Tribal consultation requirements that must be met before EFSC issues a site certificate or a county issues a land use permit. This interpretation is consistent with the above interpretation that "clean energy projects" means certain facilities that already received siting approval but are not built or under construction. It also avoids duplicating efforts in a separate report developed in parallel with this report focused exclusively on EFSC's processes, ODOE's Report on Siting and Permitting Large-Scale Electricity Infrastructure (Sept. 2026).

[ii] For more information on the range of facility types that EFSC has jurisdiction over, please see EFSC's Council Jurisdiction. For more information on the facilities under review or approved but not built or under construction subject to EFSC's jurisdiction, please see Appendix A in the Report on Siting and Permitting Large-Scale Electricity Infrastructure.

ODOE received comments seeking a broader scope, including comments suggesting the report consider existing facilities, facilities 20 MW or smaller in size, other facility technology types like low-carbon fuels, transmission infrastructure, and the adequacy and efficacy of siting and permitting processes within state jurisdiction, including Oregon's statewide land use goals and EFSC's processes. ODOE acknowledges these topics are important to the broader conversation of advancing Oregon's policy objectives, but they are outside the scope of this report. In particular, ODOE highlights that other EO 25-29 initiatives focus on some of these topics, particularly DLCD's report, Accelerating Clean Energy Deployment Through Oregon's Land Use Planning Framework (July 2026), on "opportunities and barriers to clean energy development under Oregon's land use planning goals"; ODOE's Report on Siting and Permitting Large-Scale Electricity Infrastructure (Sept. 2026) on EFSC's siting and permitting processes; and the development of "a framework for strategic transmission siting" for consideration by the Oregon State Legislature in 2027. Regarding advancing low-carbon fuels – one of the five pathways identified in the Oregon Energy Strategy – ODOE recommends state actions that include: expanding access to low-carbon fuels (Fuels Action 1), developing a low-carbon fuels deployment roadmap (Fuels Action 2), and researching and forecasting fuel needs for emergency preparedness (Fuels Action 3). Regarding new and existing electric facilities 20 MW or smaller in size, such as rooftop solar and behind-the-meter battery storage, ODOE recognizes they likely face unique barriers and may benefit from further investigation, which ODOE recommends later in this report.

External Engagement Process Supporting this Report

ODOE pursued a near-parallel external engagement process for this report and the Report on Siting and Permitting Large-Scale Electricity Infrastructure.

ODOE reached out to the nine federally recognized Tribes through formal government-to-government letters, staff-to-staff discussion, individual in-person or virtual meetings with Tribal leaders and staff, and presentations through the Legislative Commission on Indian Services and cluster groups on clean energy topics through the development of EO 25-29 directed reports and the implementation of the Oregon Energy Strategy. Feedback in the past several months were primarily on energy project processes and resources protection; feedback and themes on these topics can be found in the Report on Siting and Permitting Large-Scale Electricity Infrastructure.

ODOE held an initial open comment period for both reports in February and March 2026. In an online comment portal, ODOE posed 19 questions to commenters about their professional or lived experiences of developing a clean energy facility or participating in a development process, and the barriers they experienced. ODOE also asked commenters for input on potential solutions. In response, ODOE received 12 written public comment submissions from a range of different interested parties. ODOE also held two listening sessions to receive oral comments, which were attended by approximately 19 interested persons. A compilation of written comments received is posted on ODOE's website.

ODOE held an open comment period for a draft version of this report in June and early July 2026. In an online comment portal, ODOE posed seven questions to commenters about the draft report. On June 17, 2026, ODOE held an office-hours event to discuss environmental justice and equity perspectives throughout the report with a particular focus on the Equity and Justice Framework. ODOE separately published a draft version of the Report on Siting and Permitting Large-Scale Electricity Infrastructure for

public comment, beginning on June 12, 2026. On June 26, 2026, and July 24, 2026, ODOE presented the recommendations in both draft reports to EFSC for discussion, as required by EO 25-29. On June 29, 2026, ODOE held a listening session on both draft reports and received one oral comment. ODOE received eight written public comment submissions from a range of different interested parties, which may be viewed through the online comment portal.

Appendix C, "Assessment of Public Comments on Barriers to Clean Energy Deployment," documents the comments received about barriers and ODOE's assessment of that input. Appendix C contains every public comment's statement about a barrier. The Appendix also notes: 1) where ODOE disagreed that an item constituted a distinct "barrier"[iii] for purposes of this report's inventory; 2) where a public comment addresses something beyond the scope of this report; and 3) where a statement informed ODOE's identification of any of the barriers described in this report. ODOE reviewed all comments and appreciates the input.

Considerations on Implementing the Equity and Justice Framework for Decision-making and Program Implementation

As part of the Oregon Energy Strategy, the Equity and Justice Framework was informed by the Environmental Justice and Equity Policy Working Group and is designed to be used in the development and implementation of energy policy by policy makers, agencies, and other implementors. ODOE is committed to using the Equity and Justice Framework when addressing the actions of the Energy Strategy to reduce inequities and increase equitable and just outcomes in our work.

To implement the framework in this report, ODOE staff developed framing guidance to inform the agency's decision-making for both the process and outcome of this report. That framing guidance and notes on implementation done so far is provided in Appendix D, "Framing Guidance for ODOE on Incorporating the Equity & Justice Framework." ODOE staff intends to revisit this framing guidance after finalizing the report to inform future implementation efforts.

ODOE urges policymakers to apply the Equity and Justice Framework in the development and implementation of energy policy, including in considering this report's policy recommendations.

[iii] ODOE did not adopt a formal definition for what constitutes a "barrier" for purposes of this report, but in its review, ODOE did consider DLCD's definition in its report pursuant to EO 25-29 section I(2)(b): "'Barriers' means existing state land use provisions or policies, or the absence of such provisions or policies, that unnecessarily constrain siting approvals for clean energy generation project or transmission in areas considered well suited for development. When provisions or policies are present, barriers may be found based on complexity, redundancies, superfluous, or a lack of local resources." As noted in the prior section, land use is largely outside this report's scope.

Barriers to Clean Energy Deployment in Oregon

Not All State Requirements for Energy Facilities Are "Barriers" the State Should Remove

While Oregon has a pressing need for new electricity supply, not all energy facilities are created equal. Different facilities come with different costs and benefits. For instance, some solar or wind facilities can produce more electricity than other solar or wind facilities because they are in areas that are naturally sunnier or windier. Those facilities can be more cost-effective to build because they deliver more electricity. This is a significant reason for Oregon to pursue opportunities to import clean energy from some sunnier and windier areas of the country. On the other hand, some particularly sunny or windy areas may be more costly for energy development because there is less demand for energy in that area, and more grid infrastructure would be needed for a new facility to make deliveries to customers. Some areas that could be used for wind or solar may be more valuable for other purposes, such as agriculture or preservation of unique wildlife habitat. Some facilities, through their construction or their operations, may risk harming other values, such as Tribal trust resources. Some facilities may risk exacerbating past and continuing costs borne by environmental justice communities, while the lack of adequate facilities may disproportionately harm other environmental justice communities.[iv] Different types of energy facilities may have workforce needs that better match a local community's workforce and thereby provide more value to the local economy. These and many other factors all affect the potential total benefits a facility may provide and the total costs of its development. By total costs, ODOE means both costs considered in the market and costs not considered in the market, including costs to public health and costs to the environment. Similarly, by total benefits, ODOE means both benefits that are compensated for in the market and benefits that are not considered in the market.

Market competition alone does not fully account for a proposed facility's total benefits and total costs. One way of considering the market for new energy facilities is to consider the resource procurement processes that Oregon's investor-owned utilities undertake under Oregon Public Utility Commission's oversight. Those processes seek to identify the energy facilities that will help the procuring utility meet its customer's electricity needs at the lowest cost and risk to that utility's customers. This routinely and appropriately includes competition between in-state facilities and out-of-state facilities, both of which are needed to cost-effectively meet Oregon's energy demands. Utility resource procurement processes address one dimension of an energy facility's value and are intentionally distinct from processes that evaluate other dimensions, such as the benefits and costs to neighboring utilities' systems, to customers of a different utility, or to the economy. Yet while some costs and benefits are not directly evaluated in a utility resource procurement process, an energy facility developer's bid in a utility's resource procurement can be expected to reflect the costs and risks of that facility.

Because market competition alone cannot fully account for total benefits and total costs, government policies are necessary to advance those energy facilities whose total benefits outweigh their total costs. Policies may increase some developers' bids by requiring developers to pay costs or provide benefits

[iv] "Environmental justice community" includes communities of color, communities experiencing lower incomes, communities experiencing health inequities, tribal communities, rural communities, remote communities, coastal communities, communities with limited infrastructure and other communities traditionally underrepresented in public processes and adversely harmed by environmental and health hazards, including seniors, youth and persons with disabilities.

that the market would not otherwise require. For example, environmental policies can require developers to pay for and obtain permits to ensure development does not impose undue harms. Similarly, policies may decrease some developers' bids by rewarding developers for providing benefits that would otherwise not be considered in the marketplace. For example, local tax incentives aim to support economic development and job creation from new development. This report does not consider all government policies that may increase developers' bids as "barriers" to clean energy deployment. Some policies are necessary to reflect costs the marketplace would otherwise not take into account. Removing those policies would only shift costs, not reduce them.

To accelerate clean energy deployment in Oregon, state and local policymakers must consider whether the overall portfolio of policies affecting developers is striking the right balance between policies that increase developers' bids and policies that reward developers for providing benefits. As Oregon looks to accelerate clean energy deployment overall, the challenge for state and local policymakers is to identify and advance those energy facilities whose total benefits outweigh their total costs. ODOE plays an important supporting role here, consistent with its mission to responsibly balance energy needs and impacts for current and future generations.

Overcoming Barriers to Clean Energy Deployment Has the Potential to Deliver Significant Benefits

While the barriers to clean energy deployment are substantial, overcoming them has the potential to deliver significant benefits to Oregonians. Having access to an abundant energy supply can reduce upward pressure on electricity rates and bolster economic development. Further, several public comments for this report highlighted the potential benefits from additional clean energy deployment in Oregon, including additional job opportunities, increased tax revenue, and improved resiliency. Clean energy facilities present opportunities for landowners to diversify and increase their income streams. For example, farmers and ranchers may find value in dedicating croplands or grazing lands with marginal production capability to solar energy production. Those same lands can then provide higher per-acre revenues than before, which helps preserve the economic viability of Oregon's working lands.

Though beyond the scope of this report, ODOE also heard interest in the use of agrivoltaics[v] where feasible which would allow landowners to diversify income streams without wholly sacrificing the land's ability to produce agricultural commodities. Innovative solutions, like agrivoltaics, operationalize several statewide resiliency goals by increasing clean energy production while still delivering resiliency and economic benefits under EO 25-26. ODOE received comments in support of exploring agrivoltaics further and highlighting Oregon State University's work on the subject. OSU's North Willamette Research and Extension Center has an agrivoltaics research project, including an installation it reports is "the first energy/farm research study area of its kind in the world."[vi] Finding ways for the state to encourage innovations like agrivoltaics to support economic development in rural Oregon is an opportunity highlighted in the Oregon Energy Strategy's recommended Electricity Action 7: "Study government

[v] Agrivoltaics is the practice of producing both agricultural crops and electricity using solar panels on the same parcel of land. For more information, see the Energy 101 in ODOE's 2024 Biennial Energy Report, Agrivoltaics in Oregon.
[vi] For more information, see OSU, *Agrivoltaics*.

incentives for local electricity generation investments and identify opportunities for the state to better advance infrastructure needs, economic development and energy justice objectives."

Discussion of Agrivoltaics in DLCD's recent report, *Accelerating Clean Energy Deployment Through Oregon's Land Use Planning Framework*

DLCD's recent report also highlights the potential value of agrivoltaics and recommends that the Land Conservation and Development Commission consider provisions for Agrivoltaics, explaining:

"Agrivoltaics involves developing the same area of land for both a photovoltaic solar power generation facility and for farm use. While remaining popular in concept, the true potential of commercial scale agrivoltaics in Oregon remains to be seen. Current statewide land use provisions are ambivalent on this subject. Agrivoltaic development is neither rewarded, nor discouraged. The commission did establish temporary provisions for modestly enhanced "dual-use" development opportunities on high-value farmland as part of the 2018-19 rulemaking efforts. These provisions received very little attention and expired on January 1, 2022. However, the department continues to believe that the right type of agrivoltaics at proper locations could produce beneficial results and that additional consideration is warranted."

Inventory of Barriers to Permitting, Construction, and Interconnection for Facilities with Siting Approvals

EO 25-29 directs ODOE, in coordination with OPUC and DLCD, to "inventory, assess, and analyze barriers to the permitting, construction and interconnection of clean energy projects and associated infrastructure." Based on ODOE's research, cross-agency coordination, and analysis of public comments, this report provides an inventory of seven barriers to permitting, construction, and interconnection for proposed wind, solar, and/or battery storage facilities over 20 MW in size that have obtained siting approval from EFSC or a county.

The table below lists each of the inventoried seven barriers and indicates whether it might affect permitting, construction, and interconnection. The order in which each barrier is listed is not indicative of the magnitude of the barrier. These barriers are not mutually exclusive.

Table 1. Inventory of Seven Barriers to Clean Energy Deployment

Barrier	Permitting	Construction	Interconnection
Cost	Yes	Yes	Yes
Unexpected delays	Yes	Yes	Yes
Limited cross-jurisdictional coordination	Yes	-	Yes
Limited availability of equipment and supplies	-	Yes	Yes
Limited staffing capacity	Yes	-	-
Unmet workforce needs	-	Yes	-
Limited grid capacity	-	-	Yes

Below is a more detailed explanation of each of the inventoried barriers.

Other Barriers Identified in DLCD's Report, Accelerating Clean Energy Deployment Through Oregon's Land Use Planning Framework

While beyond the scope of this report, other barriers to clean energy deployment exist. Several were identified in DLCD's recent report. These other barriers, and the recommendations DLCD offers to overcome them, provide additional relevant context for policymakers to consider alongside this report.

DLCD found the following barriers, or potential barriers, to accelerate clean energy development in Oregon:

- Complicated and highly discretionary criteria that may be difficult to apply. These criteria may include but are not limited to the long-term environmental, economic, social and energy consequences analysis required as part of the exceptions process at OAR 660-004-0020(2)(c), or the farm and forest compatibility test at ORS 215.296. However, criteria of this nature are necessary to implement the department's mission and ensure local judgement is retained …
- An absence of Battery Energy Storage Systems siting provisions, which creates risk and uncertainty.
- No opportunity to site electrical substations in a forest zone, which is not consistent with opportunities on lands designated for exclusive farm use and requires an exception.
- Insufficient assistance for local and Tribal governments.
- Out of date comprehensive plan inventories at the local level, which may be often attributed to insufficient local resources.
- A general lack of comprehensive planning for utility scale clean energy development at the county level, which may often be attributed to insufficient local resources.
- A general absence of comprehensive planning for cultural resources and culturally significant landscapes at the state and local level, which may often be attributed to insufficient local resources.
- Insufficient consideration of community needs and benefits, which can heighten community concerns and increase project opposition.

ODOE notes that DLCD's findings about "insufficient assistance for local and Tribal governments" and "insufficient local resources" particularly resonate with this report's identified barriers of limited cross-jurisdictional coordination and limited staffing capacity.

Further Context from ODOE's Report on Siting and Permitting Large-Scale Electricity Infrastructure

While beyond the scope of this report, other challenges to clean energy deployment were identified in ODOE's Report on Siting and Permitting Large-Scale Electricity Infrastructure. It does not list specific "barriers" but does identify a number of challenges that affect permitting timelines and agency workload. These other challenges, and the recommendations ODOE offers to overcome them, provide additional relevant context for policymakers to consider alongside this report.

These challenges include:

- The growing complexity and size of proposed projects.
- Increased interest and public participation.
- Staffing limitations associated with the division's fee-based funding model.
- The length and resource intensity of contested cases.
- Coordination among Tribal, state, local, and federal review processes.

Like DLCD's findings, some of the above challenges particularly resonate with this report's identified barriers of limited cross-jurisdictional coordination and limited staffing capacity.

Barrier: Cost

Barrier to Permitting; Barrier to Construction; Barrier to Interconnection

Cost may be the single biggest barrier to energy deployment for any facility type or size. Significant investments are needed to successfully deploy large clean energy facilities, including investments in grid infrastructure. Some investments are necessary to maintain reliable electricity service, but utilities face a challenging environment to balance investments for reliability with the pressing concerns of energy affordability.

From the perspective of an individual developer, the issue of cost is intertwined with issues of time and financing. It often takes years to develop a facility and begin generating electricity for sale. The developer must make significant investments to construct the facility and pay for related work to be done, such as the construction of upgrades to the grid to facilitate interconnection or transmission service. Financing for those investments can be dependent on meeting certain development milestones, such as securing a power purchase agreement with an interested buyer.

One example of this is from a facility now under construction, Oregon Trail Solar. According to published meeting materials for EFSC's July 18, 2025, meeting, Oregon Trail Solar reportedly had to seek an amendment to its approved site certificate to extend the allowed time for construction in part because the project had not yet been able to secure a power purchase agreement.[vii] In other words, the facility

[vii] EFSC July 18, 2025 meeting materials, Item F: Compliance Program 6 month Review (Information Item).
All meeting materials for EFSC may be reviewed at https://www.oregon.gov/energy/facilities-safety/facilities/Pages/Council-Meetings.aspx.

was unable to begin construction due to the barrier of cost. Several months later, the facility secured a PPA with Amazon, and it is now under construction.[viii] It is not obvious what specific factors may have affected Oregon Trail Solar's ability to secure a PPA and begin construction earlier than it did, but this example illustrates one way that cost can be a barrier to deployment for proposed facilities with site certificates from EFSC.

A developer may be unable to successfully negotiate a PPA until after the facility has undertaken a significant amount of development work, such as obtaining necessary permits and progressing far enough in the interconnection process to have some certainty that connecting to the grid will be feasible. These are common requirements for developers who bid in utility resource procurement processes. The more costs a facility incurs before the opportunity to generate revenue is known, the more likely a developer will face increased financing costs for their investment. Many developers of larger facilities pursue development opportunities in multiple states and even multiple countries. If a facility does not appear cost-effective to develop in Oregon, a developer may take their capital and focus on opportunities in other jurisdictions.

From the perspective of a utility, the more costs all proposed facilities incur, the more costs a purchasing utility will face to obtain the resources it needs. Limitations on investment capital – including growing concerns about energy affordability[ix] and utility consumers' ability to support new investments – impact the market appetite for new supply and can deter the deployment of new supply (i.e., new facilities). This is true even though procuring new facilities may be less costly in the long term than other options, such as reliance on short-term market purchases.

While there is a cost to develop a facility, there is also an opportunity cost associated with the decision to not develop a facility.

Investing in renewable energy facilities like wind and solar has the potential to reduce a utility's reliance on other resources, such as coal or natural gas, and this may reduce the utility's risk exposure to fuel price volatility. Additionally, some landowners, including some farmers, find that lease payments from clean energy facilities provide significant opportunities to grow and diversify their income streams.

Another example of cost acting as a barrier is the Sunstone Solar Project. This proposed facility was affected by bankruptcy proceedings. The original certificate holder of the Sunstone Solar Project was Sunstone Solar, LLC, a wholly owned subsidiary of Pine Gate Renewables, LLC. In November 2025, roughly a year after Sunstone Solar received its site certificate from EFSC, Pine Gate initiated voluntary bankruptcy proceedings. In the court-supervised sales process, the company is transitioning ownership of its solar and storage facilities, including the Sunstone Solar Project.[x] The transition has been

[viii] Avangrid, Press Release, Avangrid Announces New Oregon Solar Project to Help Power Data Centers (Sept. 22, 2025).
[ix] For example, ODOE received comments for this report requesting that the development of recommendations consider potential implications on energy costs for small businesses. ODOE agrees this, and energy affordability concerns broadly, is an important consideration for policy development and implementation.
[x] See Pine Gate Renewables' website for more information at https://www.pgrsaleprocess.com/.

particularly noteworthy since Amazon outbid regional utilities like Puget Sound Energy for the proposed facility in Oregon. EFSC approved the request for amendment to transfer the site certificate from Sunstone Solar, LLC to Oregon Solar 1, LLC in June 2026.

While the Sunstone Solar Project may still be constructed, cost was a barrier for the original developer. It is not clear which specific cost(s) were the main drivers of the bankruptcy proceedings. The changes to federal government tax credits through H.R. 1 were likely a significant factor, as the changes and federal policy uncertainty have created new risks that some financiers may not be willing to take on. Some have flagged the due diligence aspect of contract negotiation may be an "hidden bottleneck" in renewable energy deployment nationwide.[xi] Due diligence reviews aim to address the risks of any given investment, so it intuitively makes sense that the more headwinds facing developers, the more complex and involved due diligence reviews might become. Additionally, interconnection costs and timelines are also rising across the power sector, as discussed below for the barrier to interconnection of limited grid capacity. ODOE also received comments indicating that permitting costs are rising. This may be related in part to the federal permitting delays described below.

Barrier: Unexpected Delays

Barrier to Permitting; Barrier to Construction; Barrier to Interconnection

While the time needed to complete different development processes can increase costs, as discussed above, a materially different issue is *unexpected* delays. For at least some developers, a predictable process that can be planned around is more important than a quicker process.[xii] Delays that are unexpected because they are hard or impossible to predict are an additional barrier to clean energy deployment.

Unexpected Delays in Federal Permitting

EFSC aims to provide a one-stop shop for permitting energy facilities in Oregon, but there are permits beyond EFSC's jurisdiction. Obtaining these permits therefore occurs outside the EFSC process or county process, and unexpected delays may affect proposed facilities despite having received siting approval from EFSC or a county.

Delays in federal permitting processes have become a more significant concern after President Trump issued a series of executive orders in 2025 that ordered several federal agencies to slow or stop work on

[xi] *The hidden bottleneck in clean energy: due diligence*, Latitude Media (Mar. 24, 2026), recording available at https://www.latitudemedia.com/events/the-hidden-bottleneck-in-clean-energy-due-diligence/; *see also* Ryan Kennedy, *Project finance leaders: Market remains 'insanely busy' despite looming tariff and FEOC headwinds*, pv magazine (June 11, 2026), https://pv-magazine-usa.com/2026/06/11/project-finance-leaders-market-remains-insanely-busy-despite-looming-tariff-and-feoc-headwinds/. In Oregon, this issue is reflected in Portland General Electric Company's unusual decision in October 2025 to update the final shortlist of bids from its request for proposals because of the massive changes to federal polices. PGE, Request for Re-Acknowledgement of the Final Shortlist of Bidders in PGE's 2023 All-Source Request for Proposal, OPUC Docket No. UM 2274 (Oct. 1, 2025), https://edocs.puc.state.or.us/efdocs/HAH/um2274hah340268114.pdf.

[xii] *E.g., Federal permitting is 'outsized' factor in clean energy delays, cancellations: Crux* (April 7, 2026), UtilityDive, https://www.utilitydive.com/news/federal-permitting-outsized-factor-clean-energy-permitting-crux/816824/ (news coverage on an industry survey that reportedly found "72% of respondents chose more predictable outcomes as the single change they would most like to see made to the federal permitting process, while only 12% said they wanted to see faster timelines").

issuing the necessary federal authorizations for wind and solar facilities.[xiii] While some delays are a known risk and should be somewhat expected, these recent delays appear to rise beyond the level of reasonable expectations. These executive orders and subsequent federal agency actions are the subject of active litigation. On April 21, 2026, a federal judge found several challenged actions to be contrary to federal law and issued a preliminary injunction ordering the federal agencies to stop delaying work.[xiv] The judge's order is limited to the proposed facilities of the plaintiffs, who include trade associations active in Oregon.[xv] The issuance of the preliminary injunction is a major development for affected facilities seeking to overcome this barrier.

A similar lawsuit was filed in June 2026 against the U.S. Department of Defense regarding a freeze on reviewing proposed wind facilities, which typically need a determination of no hazard from the Federal Aviation Administration to be built.[xvi] On July 16, 2026, Oregon's Attorney General filed to intervene, alongside 18 other attorneys general, and sought relief from the illegal federal actions harming the State of Oregon.[xvii] The filing explains the federal freeze "constitutes a nationwide ban on land-based wind development" that is harming Oregonians in multiple ways, including "by increasing the cost of electricity and jeopardizing grid reliability."[xviii] On August 6, 2026, a federal judge found the Department of Defense's actions inconsistent with federal law and issued a preliminary injunction ordering the Department of Defense to resume processing the proposed permits. To ensure compliance, the judge also ordered the Department of Defense to provide status reports every 30 days.[xix] The issuance of the preliminary injunction is a major development for affected facilities seeking to overcome this barrier. These cases are ongoing.

Barrier: Limited Cross-Jurisdictional Coordination

Barrier to Permitting; Barrier to Interconnection

Energy deployment may require the attention of multiple different entities. When processes lack adequate supportive pathways to facilitate cross-jurisdictional coordination, the result can be a less efficient process for proposed facilities. This issue can be exacerbated by limited staffing capacity, as noted below.

[xiii] In August 2025, the law firm K&L Gates provided a summary of the executive orders and subsequent implementing actions at the federal level, which can be found here: https://www.klgates.com/Department-of-the-Interior-Issues-Flurry-of-Actions-Targeting-Wind-and-Solar-Energy-Projects-8-25-2025.

[xiv] A copy of the order is available at https://storage.courtlistener.com/recap/gov.uscourts.mad.293725/gov.uscourts.mad.293725.89.0.pdf.

[xv] The plaintiffs are: RENEW Northeast, the Green Energy Consumers Alliance, Inc., MidAtlantic Renewable Energy Coalition Action, Alliance for Clean Energy – New York, Renewable Northwest, Southern Renewable Energy Association, Interwest Energy Alliance, Clean Grid Alliance and the Carolinas Clean Energy Business Association.

[xvi] *Renewable Northwest v. Peter B. Hegseth (3:26-cv-01092)*, https://www.courtlistener.com/docket/73419573/renewable-northwest-v-peter-b-hegseth/.

[xvii] Oregon Department of Justice, Attorney General Rayfield Intervenes to Protect Onshore Wind Energy Projects (July 16, 2026).

[xviii] *Renewable Northwest v. Peter B. Hegseth (3:26-cv-01092)*, Complaint-in-Intervention at paragraphs 95, 98 (July 16, 2026).

[xix] A copy of the order is available at https://storage.courtlistener.com/recap/gov.uscourts.ord.194424/gov.uscourts.ord.194424.125.0_1.pdf.

One example of this barrier is reflected in the divergent federal and state policies today. The implications of the loss of federal tax credits are discussed above under the barrier of cost. The effects of federal permitting delays are discussed above under the barrier of unexpected delays.

ODOE has not identified an example of a single specific generating facility with siting approval from EFSC or a county where limited cross-jurisdictional coordination is clearly affecting development, beyond the prior discussion of costs and unexpected delays. However, ODOE shares this as a widespread concern.

Recent State Activities to Support Tribal Coordination

Tribal coordination is a critical aspect of clean energy deployment. ODOE and DLCD have both undertaken recent work to clarify expectations for developers around Tribal coordination. ODOE staff recently supported a rulemaking for EFSC that adopted rules requiring energy facility developers going through the EFSC process to make a good-faith effort to meet with affected Tribes before submitting a Notice of Intent. Similarly, the Department of Land Conservation and Development recently concluded a rulemaking to protect cultural areas – places with archaeological sites or landscapes that hold deep meaning for Tribes and Oregon communities. DLCD's new rules will take effect in January 2027. These process improvements recognize and uplift the importance of early engagement with Tribes as sovereigns and other affected persons for successful clean energy deployment consistent with all Oregon's policy objectives.

For more information, see EFSC, Tribal Communication Rulemaking; DLCD, Goal 5 Cultural Areas Rule: An overview of Oregon Administrative Rule 660-023-0210.

Barrier: Limited Availability of Equipment and Supplies

Barrier to Construction; Barrier to Interconnection

Construction requires adequate equipment and supplies. A widespread concern in the power sector is the continuing effects of supply chain issues exacerbated by the pandemic. For example, the Western Electricity Coordinating Council has noted that "Wait time for transformers and circuit breakers is between two and four years … Switchgears and substation switches have seen delays, too."[xx]

This is a nationwide concern. On April 20, 2026, President Trump determined the nation's limited supply and production capability of grid infrastructure like transformers is a threat to national security. He

[xx] Western Electricity Coordinating Council, *2025 Western Assessment of Resource Adequacy*. PNUCC also flagged concern with "long supply chain lead times." PNUCC, *2026 Northwest Regional Forecast* at 4.
Supply constraints do not only affect clean energy facilities. Wood Mackenzie reported on April 1, 2026 that gas turbines face six-year lead times, and the limited supply of turbines has increased gas turbine prices 195%. Wood Mackenzie, *Gas turbine prices soar 195% as market faces supply-demand crisis* (April 1, 2026), https://www.woodmac.com/press-releases/gas-turbine-prices-soar-195-as-market-faces-supply-demand-crisis/. This example is shared to illustrate the widespread nature of this barrier. New natural gas facilities 25 MW or larger cannot be sited in Oregon.

directed the U.S. Department of Energy to provide incentives, such as loans or cost-sharing arrangements to industry.[xxi] It is a bipartisan issue: President Biden took similar action in 2022.[xxii]

ODOE has not identified a single specific example of how limited availability of equipment and supplies is affecting the proposed facilities that have obtained siting approval from EFSC or a county. However, ODOE understands this to be a widespread concern for the electricity sector. It may affect construction of individual facilities as well as construction of necessary interconnection upgrades.

As noted later, ODOE intends to continue studying this issue in parallel with examining barriers to small-scale facilities. This issue continues to evolve. For example, on July 28, 2026, the Federal Communications Commission adopted a ban on importing new foreign-produced power inverters, which are used for solar, storage, and wind facilities, due to concerns about potential cybersecurity vulnerabilities.[xxiii] Further, on August 6, 2026, the federal administration announced new trade tariffs on polysilicon and polysilicon derivatives, which are used in photovoltaic solar panels.[xxiv] On August 26, 2026, President Trump issued an executive order restricting the imports of some foreign-produced bulk-power system electric equipment due to concerns about potential cybersecurity vulnerabilities.[xxv]

Barrier: Limited Staffing Capacity

Barrier to Permitting

Limited staffing capacity can hinder the efficiency of permitting authorities, including Tribes, federal entities, state agencies, and local jurisdictions such as counties. Limited staff capacity or training can lengthen review processes or limit the exploration of creative solutions, ultimately hindering the speed of development. ODOE has not identified an example of a specific facility with siting approval from EFSC or a county where limited staffing capacity is clearly affecting development. However, ODOE shares this as a widespread concern. For example, ODOE has heard general concerns from developers and state agency staff about limited capacity affecting development timelines for projects before EFSC. EFSC's siting processes are substantively beyond the scope of this report, and these concerns may primarily reflect challenges for projects that do not yet have approved site certificates. However, ODOE elevates these concerns as relevant to the development of all projects, including those within the scope of this report.

[xxi] Presidential Determination Pursuant to Section 303 of the Defense Production Act of 1950, as Amended, on Grid Infrastructure, Equipment, and Supply Chain Capacity (Apr. 20, 2026); *see* Akin, *New Defense Production Act Presidential Determinations Authorize Department of Energy Action on Energy Infrastructure* (May 4, 2026), https://www.akingump.com/en/insights/alerts/new-defense-production-act-presidential-determinations-authorize-department-of-energy-action-on-energy-infrastructure.

[xxii] Presidential Determination Pursuant to Section 303 of the Defense Production Act of 1950, as Amended, on Transformers and Electric Power Grid Components (June 6, 2022).

[xxiii] Federal Communications Commission, FCC'S Public Safety and Homeland Security Bureau Announces Addition of Foreign-Produced Power Inverters and Advanced Robotic Devices to FCC Covered List (July 28, 2026).

[xxiv] The White House, Adjusting Imports of Polysilicon and its Derivatives into the United States (Aug. 6, 2026).

[xxv] Executive Order 14420, Declaring A National Emergency to Secure the United States Bulk-Power System (Aug. 26, 2026).

Other Reports Also Highlight Limited Staffing Capacity as a Concern

Both DLCD's report, Accelerating Clean Energy Deployment Through Oregon's Land Use Planning Framework, and ODOE's Report on Siting and Permitting Clean Electricity Infrastructure also discuss limited staffing capacity. As noted earlier in the report, DLCD identified a number of barriers "which may be often attributed to insufficient local resources" as well as the barrier of "insufficient assistance for local government." Further, ODOE identified "staffing limitations associated with the Siting Division's fee-based funding model" as a challenge for EFSC's review processes. ODOE staff developed recommendations for increasing team capacity and program effectiveness for ODOE's Siting Division, which staffs EFSC, in July 2026.

Barrier: Unmet Workforce Needs

Barrier to Construction

Unmet workforce needs encompass a company's need for qualified employees and a worker's need for a high-quality job. Creating high-quality jobs is an important potential benefit of clean energy deployment. ODOE received comments highlighting that Oregon's clean energy workforce has grown in recent years, driven by legislation like HB 2021 (2021).[xxvi]

ODOE has not identified a specific facility with siting approval from EFSC or a county where unmet workforce needs are clearly affecting development. Instead, ODOE has heard that there are currently not enough opportunities available for skilled and trained workers in clean energy. Addressing these unmet needs of Oregon's current clean energy workforce is critical to achieving the full potential benefits of clean energy deployment in the coming years, especially at the local scale. ODOE notes there are other active workstreams underway at ODOE to further examine workforce needs and recommend policy actions.

Oregon Energy Strategy Workforce Needs Assessment

ODOE, in partnership with the Institute for Policy Research and Engagement at the University of Oregon, is conducting the Oregon Energy Strategy Workforce Needs Assessment. Advancing the pathways and mission of the Oregon Energy Strategy will require a larger workforce across areas such as renewable energy generation, transmission, energy efficiency, and clean transportation. This assessment aims to understand how well current workforce and training systems are positioned to meet modeled demands and to develop recommendations that support the growth of Oregon's clean-energy workforce. This study is expected to be published before the end of 2026. Policymakers should be prepared to consider its findings and implement any recommendations.

[xxvi] One commenter shared a report that includes a longer discussion of recent clean energy workforce legislation in Oregon. Cornell University Climate Jobs Institute, Building the Future: A Bold Vision for Climate Jobs in Oregon (Jan. 2026) at 14-15.

Barrier: Limited Grid Capacity

Barrier to Interconnection

Limited grid capacity is a significant driver of rising costs and delays. This issue could be encompassed in the above barriers of Cost or Unexpected Delays, but ODOE addresses it separately because the issue is so widespread in Oregon and across the country. While some sophisticated developers may be able to afford to finance these costs and mitigate the delays, not all developers can do so.

The interconnection process exists to ensure that when generation facilities (including storage) connect to the grid, they do so without negatively affecting the continued safety and reliability of grid operations. This process serves important purposes. However, developers face significant headwinds in completing this process.

Time to Interconnect

One issue is the time required, which has increased significantly in recent years. This is not an issue unique to Oregon. Lawrence Berkeley National Laboratory provides a significant amount of literature on generator interconnection processes across the nation. According to their research, "The median project built in 2025 took 61 months from the interconnection request to commercial operations, compared to 36 months in 2015 and 22 months in 2008."[xxvii] These data reflect average time requirements nationwide. Some facilities face longer timelines to interconnect.

ODOE received comments highlighting delays experienced in the interconnection processes with the Bonneville Power Administration and PacifiCorp dba Pacific Power. Both entities are implementing reforms to their interconnection processes, which are addressed further in Appendix E, "Interconnection Processes in Oregon." These reforms are underway. In addition, OPUC continues to closely review interconnection processes to identify additional areas where reforms might provide value.[xxviii] However, the OPUC's ability to improve interconnection processes for large facilities is extremely limited. The overwhelming majority of interconnection requests for facilities over 20 megawatts are to Bonneville Power Administration or are subject to processes set by the Federal Energy Regulatory Commission.

One cause of recent delays in interconnection is the issue of cascading restudies, where a change for one facility's interconnection can lead to cascading effects as that change can trigger a need for a re-study for one or more other facilities; those restudies can trigger needs for re-studies for other facilities, and so on. For example, when a proposed facility with a high-cost estimate to interconnect decides to withdraw from the interconnection process, the withdrawal can change the study assumptions for other proposed facilities and move an assigned upgrade from the withdrawing facility to the next facility in line. That next facility might then receive a high-cost estimate and choose to withdraw, with the cycle repeating itself. As discussed below, the need for transmission system upgrades is a significant contributor to recent high-cost estimates for interconnection.

An example of limited grid capacity increasing the time required for deployment can be seen with Obsidian Solar Center. ODOE received comments that Obsidian Solar Center had to obtain an amended site certificate from EFSC to extend the facility's deadline to begin construction specifically because of

[xxvii] LBNL, *Queued Up: 2026 Edition, Characteristics of Power Plants Seeking Transmission Interconnection* at slide 4.
[xxviii] E.g., Docket No. AR 683, In the Matter of Temporary Interconnection Rules in Response to Executive Order 25-25.

delays in the facility's interconnection. This is an example of how delays in one process (such as interconnection) can complicate other processes (such as permitting or construction).

Cost to Interconnect

Another issue is the rising costs. One aspect of this is increasing costs to support the transmission system. There is a separate process, the transmission service process, to review and grant requests to move electricity across the grid. However, necessary upgrades to the transmission system are increasingly being identified in the interconnection process. In many places, the current transmission system, as it is currently utilized, is at or nearing its limits.[xxix] As a result, a significant number of interconnection studies are identifying a need for investments to the transmission system (a "network upgrade"), which can be prohibitively expensive.

Here is one example: in March 2024, Pacific Power produced an interconnection study for three proposed facilities seeking to interconnect to Pacific Power's system in the Willamette Valley area, one 100 MW wind facility, one 100 MW battery storage facility, and one 199 MW battery storage facility. The study identified that interconnecting all three facilities would require network upgrades, potentially including a new 120-mile long high-voltage transmission line at an estimated cost of $327.6 million.[xxx] Two facilities withdrew. The 199 MW battery storage facility paid for an updated study, which identified the 199 MW battery storage facility, by itself, could interconnect without needing the new transmission line. Its updated cost estimate in the new study was $10.36 million, total.[xxxi] In this example, limited grid capacity was a barrier to interconnecting three proposed clean energy facilities, and two of the three projects did not overcome the barrier.

Like the increasing time frames, this issue is not unique to Oregon. For example, LBNL recently published a new report, Generator Interconnection Costs to the Transmission System in non-ISO Balancing Authorities (Feb. 2026), which includes analysis of both BPA and Pacific Power. Here are some of LBNL's key findings:

- "Interconnection costs have increased since the early 2000s … Network upgrade costs are the primary driver of recent cost increases, especially among withdrawing projects … Overall, network upgrade costs as a proportion of total interconnection costs have increased over time, rising from 35% in the 2000s to 85% in 2018-2024 (across all projects irrespective of request status)."
- "High interconnection costs impact project economics and often lead to withdrawal of the interconnection request…"

[xxix] Historically, utility procurement processes have required developers to hold "firm" long-term transmission rights regardless of the facility's likely need for transmission. It has been recognized that, for intermittent renewable energy resources, this means a significant amount of the system's physical capacity is both over-reserved and under-utilized. See Elaine Hart, Sylvan Energy Analytics, *Toward a more holistic and adaptive treatment of BPA transmission rights in Northwest utility planning and procurement processes* (March 2025).

[xxx] Pacific Power, Generation Interconnection Cluster 3 Study Report Cluster Area 19 (March 8, 2024). The three facilities were also studied for a lower level of interconnection service that would have included some network upgrades but not the 120-mile long line. The total cost for the lower level of service for all three facilities was $20.2 million, of which $5.1 million was for network upgrades.

[xxxi] Pacific Power, Generation Interconnection Cluster 3 Study Report Cluster Area 19 (January 23, 2025). The one facility was also studied for a lower level of interconnection service with a total cost estimate of $9.41 million.

- "Interconnection costs are not available as pre-request information and costs assessed in completed studies are challenging to collect. Developers engage in the interconnection process as a means of cost discovery…"[xxxii]
- "Recent (2018-2024) projects that complete all studies have the lowest interconnection costs" and "Recent average interconnection costs for complete projects are lowest in BPA."

In summary, developers face significant headwinds to achieve interconnection. The interconnection process has sometimes been used to discover cost information. However, many facilities receive cost estimates that are cost prohibitive. Those facilities withdraw, which often causes delays to other facilities being studied. As discussed earlier, the average time to interconnect is lengthening. Importantly, LBNL acknowledged the above report is primarily based on data from before the recent adoption of significant reforms to the interconnection process. As noted earlier, both BPA and Pacific Power are still implementing reforms.

LBNL also observed that "Recent interconnection costs in our BA sample are higher than in ISOs." ISOs are Independent System Operators that operate competitive wholesale markets. Oregon is not part of an ISO. As noted in the Oregon Energy Strategy, "Considering the billions of dollars the West has saved through the real-time electricity market since 2014, much work is already underway to further progress toward an organized electricity market."[xxxiii] As of May 1, 2026, the California ISO's Extended Day-Ahead Market is now live, with Pacific Power participating as a non-ISO entity.[xxxiv] Portland General Electric Company is expected to join the Extended Day-Ahead Market in October 2026. BPA has announced it intends to join a different day-ahead market, the Southwest Power Pool's Markets+, in late 2028. It is not yet clear how much the operation of the extended day-ahead market may begin to address the barrier of limited grid capacity in 2026 or 2027. It is widely expected to provide significant benefits to participating utilities and their customers, including cost savings and increased reliability.

The anonymized nature of the interconnection process and lack of publicly available data on which costs or delays are affecting specific proposed facilities in Oregon makes it hard to describe which specific facilities are facing the barrier of limited grid capacity. But it is clear that limited grid capacity is an area of critical concern, as reflected in the case of Obsidian Solar Center and in comments highlighting this as a widespread issue.

[xxxii] The availability of information prior to submitting an interconnection request and obtaining study results can vary depending on the interconnecting provider. In Oregon, for example, OPUC has required investor-owned utilities to publicly post certain information since 2019. *E.g., In the Matter of PUBLIC UTILITY COMMISSION OF OREGON, Investigation into PURPA Implementation,* OPUC Docket No. UM 2000, Order No. 19-051, Staff Report at 7-8 (Feb. 19, 2019) (requiring additional information be made available to inform future interconnection requests). Requiring more information be publicly available was a contentious issue before the Federal Energy Regulatory Commission, but in 2023, FERC adopted requirements for more information to be posted. *See* FERC Docket No. RM22-14, Order No. 2023 at 117 (July 28, 2023); *see also* FERC Order No. 2023-A (Mar. 31, 2024).

[xxxiii] Oregon Energy Strategy at 58.

[xxxiv] Pacific Power, Press Release, *EDAM is live: PacifiCorp and CAISO successfully launch new market May 1* (May 1, 2026), https://www.pacificorp.com/about/newsroom/news-releases/extended-day-ahead-market-live.html.

Policy Recommendations

Overview

EO 25-29 calls for ODOE to "recommend actions to overcome those [inventoried] barriers while balancing opportunities for public participation with the state's interest in accelerating deployment of clean energy infrastructure that benefits Oregon ratepayers." ODOE recommends six actions to overcome the inventoried barriers, which are described in the first section below. In the second section, ODOE recommends three complementary actions to meet Oregon's near-term needs for clean energy supply, considering there are limitations to how quickly new large-scale facilities can get built. The third and final section highlights recommendations from two other EO 25-29 initiatives, DLCD's report, Accelerating Clean Energy Deployment Through Oregon's Land Use Planning Framework (July 2026), and ODOE's parallel Report on Siting and Permitting Large-Scale Electricity Infrastructure (Sept. 2026). Implementing the recommendations from these other reports would help address challenges to clean energy deployment beyond the scope of this report.

Policy Recommendations to Overcome Barriers

ODOE recommends six policy actions to overcome the barriers described in this report. The following two tables provide high-level summaries of the actions that policymakers could take: Table 2 lists the recommendations and barriers each recommendation would address, and Table 3 lists the barriers and which recommendations would address each. These tables show that these recommendations are interrelated: each recommendation could address more than one barrier, and most barriers could be addressed by more than one of the six recommendations. Each recommendation is discussed separately after Table 3.

Table 2. Policy Recommendations to Overcome Barriers

Recommendation	Barriers It Could Help Address
Consider providing financial incentives to new clean energy facilities that provide significant localized benefits to Oregon communities.	• Cost • Limited cross-jurisdictional coordination • Unmet workforce needs • Limited grid capacity
Support the expansion and upgrading of critical transmission infrastructure	• Cost • Unexpected delays • Limited cross-jurisdictional coordination • Limited grid capacity
Monitor for, and defend against, market-disrupting federal policy changes.	• Cost • Unexpected delays • Limited cross-jurisdictional coordination • Limited availability of equipment and supplies • Limited grid capacity
Prioritize actions that support Oregon's existing and future clean energy workers.	• Cost • Unmet Workforce Needs

Recommendation	Barriers It Could Help Address
Increase state agency capacity as needed to meet permitting needs and provide statewide technical assistance.	• Cost • Unexpected delays • Limited cross-jurisdictional coordination • Limited staffing capacity
Convene recurring forum discussions on cross-jurisdictional topics, such as opportunities to align siting, interconnection, and procurement processes, to support further conversation and actions on these topics.	• Cost • Unexpected delays • Limited cross-jurisdictional coordination • Limited grid capacity

Table 3. Inventory of Barriers and the Recommendations to Overcome Each

Barrier	Recommendations
Cost	• Provide incentives • Support transmission investments • Address federal policy changes • Support clean energy workers • Increase permitting staffing capacity • Convene forums on cross-jurisdictional topics
Unexpected delays	• Support transmission investments • Address federal policy changes • Increase permitting staffing capacity • Convene forums on cross-jurisdictional topics
Limited cross-jurisdictional coordination	• Provide incentives • Support transmission investments • Address federal policy changes • Increase permitting staffing capacity • Convene forums on cross-jurisdictional topics
Limited availability of equipment and supplies	• Address federal policy changes
Limited staffing capacity	• Increase permitting staffing capacity
Unmet workforce needs	• Provide incentives • Support clean energy workers
Limited grid capacity	• Provide incentives • Support transmission investments • Address federal policy changes • Convene forums on cross-jurisdictional topics

Consider providing financial incentives to new clean energy facilities that provide significant localized benefits to Oregon communities

Barrier(s) It Could Help Address: Cost; Limited cross-jurisdictional coordination; Unmet workforce needs; Limited grid capacity

Policymakers could consider providing state financial incentives to new clean energy facilities that provide demonstrable benefits to Oregon communities, such as local jobs and enhanced reliability and resilience. The current status quo is that in-state projects that provide these benefits may not be competitive in utility procurements, which seek to identify the energy facilities that will help the procuring utility meet its customer's electricity needs at the lowest cost and risk to that utility's customers. Benefits to neighboring utilities' systems, to customers of a different utility, or to the economy on the whole are not valued in these procurement processes, absent specific state or local incentives that lower a facility's offered bid to a utility. Providing state financial incentives would enable in-state facilities to offer lower, more cost-competitive bids, enter contracts to supply Oregon utilities, and pursue construction, ultimately providing more supply that can reduce upward pressure on electricity rates and support economic development.

A key consideration in establishing incentives will be to determine the funding level. This evaluation should consider how much new in-state generation is needed to meet Oregon's goals most cost effectively. It should also consider opportunities to coordinate and collaborate with other states to increase regional supply levels. ODOE does not recommend a specific target for funding or in-state generation at this time, but ODOE would offer technical assistance in conversations on these topics.

There are other policy interventions that could overcome barriers to Oregon energy projects that provide community benefits without using tax dollars, but they risk further increasing costs on utility customers. In-state projects can provide localized benefits, but the local community that receives benefits may not be the same community that pays higher utility costs. A potential policy intervention would be to require investor-owned utilities to share some interconnection costs with independent developers. This could be accomplished either upfront or through a reimbursement mechanism, such as a requirement to pay a set percentage of network upgrade costs. Cost-sharing presents tradeoffs as, in the absence of state tax dollars, policy interventions of this type shift some upfront costs and risks from facility developers to utility customers. It would help more facilities be developed, but it is not certain that utility customers would ultimately pay less over the long term.

Support the expansion and upgrading of critical transmission infrastructure

Barrier(s) It Could Help Address: Cost; Unexpected delays; Limited cross-jurisdictional coordination; Limited grid capacity

This report highlights that limited grid capacity is a major barrier to clean energy deployment. Coordinated action is needed to address the largest investment needs to deploy clean energy, such as transmission upgrades.

Important work is underway to address limited grid capacity. For instance, on June 30, 2026, Governor Kotek and ten other western U.S. governors issued a joint statement endorsing the Western Transmission Expansion Coalition's process and regional study findings.[xxxv]

Policymakers should prepare to take additional action, including action to implement the framework for strategic transmission siting. EO 25-29 section I(2)(e) directs ODOE, in coordination with OPUC and the Governor's Office, to "develop a framework for strategic transmission siting" for consideration by the Oregon State Legislature in 2027. This is one of EO 25-29's other initiatives to "get clean energy projects built." This framework addresses mechanisms the state can deploy to support transmission infrastructure expansion.

Monitor for, and defend against, market-disrupting federal policy changes.

Barrier(s) It Could Help Address: Cost; Unexpected delays; Limited cross-jurisdictional coordination; Limited availability of equipment and supplies; Limited grid capacity

This report highlights that some recent federal policy changes are contributing to rising costs and unexpected delays, both of which are major barriers to clean energy deployment. Oregon is actively monitoring action in Congress and the courts around policy changes that are detrimental to clean energy deployment in the state, as well as engaging on opportunities for regional and federal-state collaboration, such as on transmission infrastructure. Further advocacy, including litigation, may be necessary in the coming months and years.

This is an important area to monitor. As one next step, ODOE intends to more closely investigate supply chain constraints, including evolving federal policies, and possible economic opportunities for the state to support much needed manufacturing of critical energy components. ODOE is aiming to share initial findings from its research for public input by September 2027.

Prioritize actions that support Oregon's existing and future clean energy workers.

Barrier(s) It Could Help Address: Cost; Unmet Workforce Needs

This report recognizes skilled and trained workers in clean energy are struggling to find enough opportunities for employment. This reality is in stark contrast to projections of Oregon's growing energy workforce needs. Addressing these unmet needs of Oregon's current clean energy workforce is critical to achieving the full potential benefits of clean energy deployment in the coming years, especially at the local scale.

Taking action on the barriers in this report should aid the deployment of new clean energy facilities, which will create job opportunities. Policymakers should also prepare to take action following release of the forthcoming Oregon Energy Strategy Workforce Needs Assessment. This assessment aims to understand how well current workforce and training systems are positioned to meet modeled demands and to develop recommendations that support the growth of Oregon's clean-energy workforce. ODOE is partnering with the Institute for Policy Research and Engagement at the University of Oregon on this

[xxxv] Western Transmission Joint Statement of Agreement For a Stronger, More Connected Western Grid (June 30, 2026).

assessment. This assessment is expected to be published before the end of 2026. Policymakers should be prepared to consider its findings and implement its recommendations.

Increase state agency capacity as needed to meet permitting needs and provide statewide technical assistance.

Barrier(s) It Could Help Address: Cost; Unexpected delays; Limited cross-jurisdictional coordination; Limited staffing capacity

This report acknowledges that limited staffing capacity can act as a barrier to clean energy deployment. This is a common thread across EO 25-29 initiatives. DLCD's report highlights a number of barriers that may arise from limited resources; DLCD recommends action to increase technical assistance in response. Similarly, ODOE's Report on Siting and Permitting Large-Scale Electricity Infrastructure highlights that getting clean energy projects built requires a strong Siting Division with higher levels of support and oversight structures as well as greater flexibility to work on activities that may not align with the current billable model. It recommends a modernization of Siting Division staff organizational structures to meet growing needs and increasing complexity. Increased state agency capacity is needed to implement these reports' recommendations.

This recommendation echoes a near-term action in the Oregon Energy Strategy for state policymakers to increase agency capacity as needed (Cross-Cutting Action 11). As noted there, several different Oregon state agencies play a role in enabling, supporting, and overseeing the energy transition. The scale of the challenge brought to these agencies often outbalances the scope of resources currently available to them. While current financial challenges at the state level may mean additional investment may not be possible in the near term, these two recommendations signal the importance of making investments when resources are available.

Convene recurring forum discussions on cross-jurisdictional topics, such as opportunities to align siting, interconnection, and procurement processes, to support further conversation and actions on these topics.

Barrier(s) It Could Help Address: *Cost; Unexpected delays; Limited cross-jurisdictional coordination; Limited grid capacity*

This recommendation aims to support ongoing education of and alignment across different processes critical to clean energy deployment, including permitting, interconnection, and construction. This ongoing action would build on this report and other ongoing workstreams – and their near-term recommendations, noted above – to support continued improvements over time.

ODOE aims to provide a venue for problem-solving Oregon's energy challenges. Consistent with ODOE's mission, ODOE could, with adequate staffing, convene a forum every year or every few years to advance cross-jurisdictional coordination.

Each forum would bring together interested parties to jointly consider the varied processes that a clean energy facility must undertake and opportunities for improvement. Each event could feature presentations on different processes, such as county siting processes and BPA and utility interconnection processes. It could also feature roundtable discussions and surveys to gather

information and hear from different perspectives. In this way, the forum would offer opportunities to establish a common understanding of issues and emerging concerns in different processes. Significant questions this forum could help address include:

- Where do different development processes intersect, and how do they affect one another?
- What intersections between processes are most significant for developers? Which are most significant for Oregon ratepayers?
- What opportunities exist to improve alignment across processes and facilitate development? What risks might be created by pursuing each opportunity?
- What level of state support, if any, would be needed to pursue each opportunity?

The forum would also offer opportunities to identify and avoid potential unintended consequences across processes. After the event, a forum report could be issued summarizing key findings and any recommended near-term actions, including where legislative action may be needed.

This forum would focus on cross-jurisdictional challenges and opportunities. Implementing cross-cutting strategies requires significant collaboration. While facilitating the forum is consistent with ODOE's mission, the forum will be most successful with broad participation and collaboration, including co-creating agendas and other reference materials. ODOE looks forward to this collaboration.

ODOE recommends the first forum focus on interconnection processes for generating facilities over 20 MW and explore what new or changed aspects of the interconnection process, as reformed, most intersect with other processes. For example, ODOE could invite BPA and Oregon utilities to present information about recent interconnection reforms, such as increased site control requirements, and ODOE could facilitate a dialogue among forum attendees – such as county planners – about the potential implications for siting and permitting processes. ODOE anticipates the reforms may place increased pressure on permitting authorities in the coming years, on top of the increased demands as counties implement HB 4031 (2026), by increasing workload demands in certain times of the year to meet crucial interconnection milestones. To support this forum and provide a needed resource, ODOE and OPUC produced Appendix E, "Interconnection Processes in Oregon." This resource is meant to be an introductory resource only, to help participants understand the challenges of generator interconnection and the significance of the reforms adopted to interconnection processes in recent years. The appendix does not address surplus interconnection or the recent changes from HB 4076 (2026), but these could be appropriate topics for presentation or discussion at a forum.

This is a near-term action that could be pursued using existing state agency authority. It may be difficult to sustain with only existing agency resources; additional state or external funding would likely be needed.

ODOE received public comments on this recommendation that supported ongoing conversation and coordination but were concerned with potentially deferring action, duplicating existing efforts, or omitting critical voices. ODOE agrees the venue should not act as a "prerequisite to timely action" nor "introduce new administrative burdens." However, further conversation and engagement will be critical to make long-term progress toward Oregon's energy goals. By recommending a forum every year or every few years, ODOE hopes to continue the conversation beyond this report, including on topics beyond the targeted scope of this report. For example, ODOE received a significant number of

comments throughout this process concerned about maintaining robust siting and permitting process with public participation while simultaneously enabling the development of electricity infrastructure.

As noted in DLCD's report, the implementation of HB 4031 (2025), wherein for a limited time developers may seek permitting approval at the county level for projects that ordinarily would be reviewed at the state level, may impose challenges and opportunities. DLCD recommends action to support local governments in this work, and ODOE agrees state-local coordination will be beneficial. This action proposes the state provide support to local decisionmakers, including by facilitating discussion on cross-jurisdictional topics and listening to what different communities need to advance their specific priorities.

Broader Policy Recommendations

The above recommendations aim to overcome the identified barriers, but there are limitations to how quickly new large-scale facilities can get built. For example, the interconnection process is a known bottleneck for clean energy deployment. None of the above recommendations propose changes to the interconnection process itself,[xxxvi] for three main reasons. One, reforms are already being implemented and need time to work. Two, the vast majority of interconnection requests go through processes outside Oregon's control, as documented in Appendix E, "Interconnection Processes in Oregon." Three, options to bypass the main interconnection queues, such as surplus interconnection, provide some opportunities but also pose trade-offs, including for land-use and siting, which, while outside the scope of this report, is nevertheless a concern ODOE received in public comments.

Considering what else might be done to address Oregon's energy needs, ODOE offers the following complementary recommendations:

- Advance energy efficiency, load flexibility, and small-scale energy resources across the state, which may be deployable faster than large-scale facilities.
- Encourage regional cooperation and the advancement of wholesale energy markets.
- Consider updating and harmonizing existing energy statutes as part of any potential action on cap and invest legislation

Advance energy efficiency, load flexibility, and small-scale energy resources across the state, which may be deployable faster than large-scale facilities.

Energy efficiency, load flexibility, and small-scale energy resources are all important parts of the portfolio of resources needed to meet Oregon's clean energy and climate goals, including reliable, affordable clean electricity service. Policymakers should pursue opportunities to advance them that build on Oregon's existing policies and provide clear direction on the state's priorities as they relate to local community needs.

One action policymakers could take is expanding ODOE's statewide energy infrastructure resilience programs, including increasing funding for and amending the Community Renewable Energy Grant Program to support projects that improve energy resilience, as recommended in the Oregon Energy

[xxxvi] The first recommendation notes a potential change to the allocation of some interconnection costs.

Strategy (Electricity Action 1). Implementing this action would provide immediate support for some clean energy facilities and help them overcome the barrier of cost.

ODOE intends to focus on clean energy facilities under 20 MW in size as it continues investigating barriers to clean energy deployment and potential policy recommendations to overcome them. The Oregon Energy Strategy acknowledged distributed energy resources, such as rooftop solar, are often more costly to build per kilowatt hour generated, but can be constructed more quickly, provide important resilience benefits (especially when paired with battery storage), and typically have fewer effects on natural and cultural resources. However, they face barriers, including high upfront costs that can limit access especially for low- and moderate-income households. There are also innovative solutions for small-scale resources, such as solar installations on the pivot corners of farmland or floating on irrigation reservoirs. Medford Irrigation District recently celebrated the launch of Oregon's first floating solar array at the District's Central Point irrigation reservoir.[xxxvii] As part of this investigation, ODOE intends to continue evaluating supply chain constraints and changing federal trade policies. ODOE is aiming to share initial findings from its research for public input by September 2027. ODOE will continue to coordinate with other agencies on this work.

ODOE notes this investigation may advance progress toward the Oregon Energy Strategy's recommended action to "Study government incentives for local electricity generation investments and identify opportunities for the state to better advance infrastructure needs, economic development and energy justice objectives" (Electricity Action 7).

ODOE also recommends investigating what barriers affect the continued operations of existing small-scale energy resources, including hydroelectric and biomass facilities. These existing resources may provide valuable capacity and resilience benefits to the electricity system but, like all existing infrastructure, they face costs to maintain or recommission operations that they may not be able to secure financing for without state policy support. This study could be undertaken without legislative action, but the timing would be dependent on agency resources.

Encourage regional cooperation and the advancement of wholesale energy markets.

The barriers identified in this report are not unique to Oregon, and Oregon should not attempt to solve them alone. Regional cooperation is a key avenue to mitigate rising cost pressures. The Oregon Energy Strategy broadly recommends policymakers "collaborate with Bonneville Power Administration, neighboring states and other regional entities to address Oregon's needs as part of a regional grid" (Clean Electricity Policy 2d). Efforts to implement new day-ahead markets and resource adequacy programs deserve support. These regional efforts may provide new opportunities for Oregon.

Once sufficient data is available, ODOE intends to examine whether new day-ahead markets reveal additional opportunities for targeted state actions or incentives, particularly of different interconnection costs. If so, ODOE will propose policy recommendations. This analysis should draw on multiple data sources, but one source – new day-ahead market operations data – is not yet available in sufficient quantity. ODOE recommends this analysis begin only once a critical mass of this new market data is

[xxxvii] Medford Irrigation District, Ribbon Cutting (May 8, 2026), https://medfordirrigation.specialdistrict.org/ribbon-cutting; fca, Medford Irrigation District Floating Solar, https://fcasolutions.org/projects/medford-irrigation-district-floating-solar/.

available. As noted in public comments, caution is warranted regarding the use of initial market operations data from CAISO's Extended Day-Ahead Market, because it may not be representative of typical market operations, especially once more entities, like PGE, join the new market.

This examination may be most appropriate to explore within the context of the full implementation of the Oregon Energy Strategy's recommendation to "Study government incentives for local electricity generation investments and identify opportunities for the state to better advance infrastructure needs, economic development and energy justice objectives" (Electricity Action 7). Full implementation may require additional federal or state resources beyond current agency levels.

Consider updating and harmonizing existing energy statutes as part of any potential action on cap and invest legislation

Accelerating resource development is critical to achieving Oregon's goals, including affordable, reliable, clean electricity service. If policymakers decide to pursue cap and invest legislation, as recommended by the Governor's Prosperity Council,[xxxviii] then ODOE recommends the conversation include consideration of updating and harmonizing existing statutes. The complete portfolio of policies must together send the right signals and incentives for clean energy deployment that helps Oregon achieve its goals. As noted earlier, in the section Not All State Requirements for Energy Facilities Are "Barriers" the State Should Remove, to accelerate clean energy deployment in Oregon, state and local policymakers must consider whether the overall portfolio of policies affecting developers is striking the right balance between policies that increase developers' bids and policies that reward developers for providing benefits. As Oregon looks to accelerate clean energy deployment overall, the challenge for state and local policymakers is to identify and advance those energy facilities whose total benefits outweigh their total costs. ODOE plays an important supporting role here, consistent with its mission to responsibly balance energy needs and impacts for current and future generations.

Below are some key questions for consideration in any potential cap and invest discussions:

- How will transitioning to a cap and invest policy help advance progress on meeting Oregon's energy and climate goals?
- What lessons should Oregon draw from Washington's dual Clean Energy Transformation Act and Climate Commitment Act? Considering CETA uses renewable energy certificates like Oregon's Renewable Portfolio Standard does, should Oregon make changes to its RPS to align? What changes to the RPS would best encourage localized clean energy deployment that provides benefits to Oregon communities while also enhancing regional alignment and coordination?
- How soon should the cap and invest legislation require action, and what affordability protections will it include? Does this timeline suggest changes should be made to HB 2021's clean energy targets for 2030 or HB 2021's cost cap to advance least-cost energy resources while maintaining affordable and reliable electricity service? How can the timeline support the steady deployment of clean energy resources that center Oregon's communities and local clean energy workers?

[xxxviii] Oregon Prosperity Council, Recommendations for Oregon's Long-Term Competitiveness & Prosperity (June 2026).

- How could cap and invest legislation best advance regional coordination, including the advancement of organized wholesale electricity markets? How can policymakers avoid inadvertently deterring participation in wholesale markets or in resource adequacy programs?

ODOE stands ready to support policymakers with technical assistance and analysis on these and any other energy-related topics.

Recommendations to Reduce Barriers to Clean Energy Deployment from Other EO 25-29 Reports

This report evaluates barriers to clean energy deployment for proposed facilities that already obtained siting and permitting approvals at the state level. Policymakers should also take action to improve siting and permitting processes, as recommended in two other EO 25-29 reports.

In July 2026, the Department of Land Conservation and Development released their report, Accelerating Clean Energy Deployment Through Oregon's Land Use Planning Framework (July 2026). It includes the following recommendations, sorted by length of time and amount of resources needed to carry out the work:

A. Modest Resource Needs (0-24 Months)
    1. Develop statute and rule provisions regarding stand-alone Battery Energy Storage Systems (BESS). Creating clear authorization for this use likely requires legislative action to adjust ORS Chapter 215, which would trigger necessary conforming updates to OAR Chapter 660, Division 33. Additional administrative rulemaking could be necessary if directed by the Legislature.
    2. Develop rules to provide for substations to be located in Forest Zones by adding a use to OAR 660-006-0025(4), or by revising existing provisions at OAR 660-006-0025(4)(r).
    3. Develop guidance for local government implementation of HB 4031.
    4. Work with Federally Recognized Tribes in Oregon to inventory and protect cultural resources with a nexus to clean energy generation and transmission
B. Average to Above Average Resource Needs (12-36 Months)
    1. Expand the "Green Corridor" rule in OAR 660-033-0055 to apply statewide to facilitate and streamline transmission siting.
    2. Implement the Enhanced Technical Resource recommendations made in the Department's Least Conflict Solar Siting in Eastern Oregon (HB 3409) Final Report of 2025.
    3. Support the Oregon Department of Energy's "Tribal Energy Block Grant" concept.
    4. Consider developing new policies prioritizing re-use of existing sites, or technical assistance to implement existing laws that prioritize the re-use of existing sites.
    5. Policies promoting "behind the meter" noncommercial renewable energy development (rooftop solar and other types).
    6. Consider provisions for Community Solar Projects.
    7. Consider provisions for Agrivoltaics.
    8. Normalize Community Benefit conversations.
    9. Reconsider high-value farmland limitations for non-irrigated lands in American Viticultural Areas.

10. Consider establishing high-value farmland, arable land, and nonarable land as the three overall categories for considering commercial energy generation proposals and elevating the threshold for non-high-value farmland from 20-acres to 100-acres.
11. Consider establishing provisions for placing photovoltaic solar panels in the corners of center pivot irrigation systems.

C. Significant Resource Needs (24 months and beyond)
    1. Consider updating Statewide Planning Goal 13, Energy Conservation, and if necessary, develop a new administrative rule to provide guidance for clean energy planning and siting.

In parallel with this report, ODOE published the Report on Siting and Permitting Large-Scale Electricity Infrastructure (Sept. 2026). It identifies the following recommendations to improve and streamline siting and permitting:

- Increase Oversight and Capacity in Siting Division to Address Volume, Complexity, and Streamlining of Project Reviews
- Align Siting Division Fiscal Policies and Procedures with Staffing Needs
- Streamline or Remove Contested Case Elements
- Identify Opportunities to Streamline Process for Low-Impact Facilities
- Reduce Steps in Completeness Review Phase
- Construction Extension Deadline Review
- Reduce Time Between Notice of Intent and Project Order
- Increase Standardization of Mandatory Conditions
- Appellate Rules Clarification
- EFSC and NEPA Simultaneous Review Evaluation
- Annual Exception to Goal 3 Exception Policy Memo Update and Workshop
- Enhance Early Engagement Efforts
- EFSC Training
- Project Updates to EFSC
- Responsible Use of Artificial Intelligence
- Implement Oregon Energy Strategy
- Implement the Oregon Department of Energy's 2026-2029 Strategic Plan

Appendix A: Additional Materials

Project resources:

- Webpage for this report: https://energystrategy.oregon.gov/cleanenergydevelop
- Public Comments Received through March 20, 2026 for this Report and for the Report on Siting and Permitting Large-Scale Electricity Infrastructure, available at https://energystrategy.oregon.gov/s/OES-EO25-29-BarrierstoCleanEnergyDeployment-Comments-March2026.pdf and through the Online Comment Portal for this Report, available at https://odoe.powerappsportals.us/en-US/EO-Comment-Viewer/
- Public Comments Received through July 2, 2026 for this Report, available through the Online Comment Portal for this Report, available at https://odoe.powerappsportals.us/en-US/EO-Comment-Viewer/
- *Oregon Energy Strategy* (Nov. 2025), available at https://energystrategy.oregon.gov/
- *EO 25-29* (Nov. 2025), available at https://www.oregon.gov/gov/eo/eo-25-29.pdf
- *EO 25-29 FAQ* (Nov. 2025), available at https://drive.google.com/file/d/1tKZNftztjfKAd8CDK0ozMHcsjjtFenLA/view

Related projects currently underway or recently published:

- ODOE, *Report on Siting and Permitting Large-Scale Electricity Infrastructure* (Sept. 2026), information available at https://energystrategy.oregon.gov/largescale
- ODOE, *Oregon Energy Strategy Workforce Needs Assessment* (forthcoming), information available at https://energystrategy.oregon.gov/workforceneeds
- DLCD, Accelerating Clean Energy Deployment Through Oregon's Land Use Planning Framework (July 1, 2026), available at https://www.oregon.gov/lcd/NN/Documents/DLCD_EO_25-29_Report.pdf
- See generally ODOE, Implementing the Oregon Energy Strategy, https://energystrategy.oregon.gov/implementing-the-strategy
    - For example, ODOE is conducting research and participating in a technical assistance project with the National Governor's Association as part of EO 25-29 I(2)(e) to develop a framework for strategic transmission siting.
- See also OPUC, Docket No. UM 2417, Identifying Priorities in Implementation of Executive Orders 25-25 and 25-29, https://apps.puc.state.or.us/edockets/DocketNoLayout.asp?DocketID=24859

Additional resources highlighted in public comments relevant to this and other ongoing workstreams:

- Climate Jobs Institute at Cornell University, *Building the Future: A Bold Vision for Climate Jobs in Oregon* (Jan. 2026), available at https://www.ilr.cornell.edu/climate-jobs-institute/report-summary/bold-vision-climate-jobs-oregon

- Columbia River Inter-Tribal Fish Commission, *Energy Vision for the Columbia River Basin* (Sept. 2022), available at https://critfc.org/energy-vision/
- *Oregon Renewable Energy Siting Assessment (ORESA) Tool*, available at https://oregon-explorer.apps.geocortex.com/webviewer/?app=7501a78d26844019892269bc295ea36b&viewer=renewable
- ODOE et al., *2022 Oregon Renewable Energy Siting Assessment*, available at https://hub.oregonexplorer.info/documents/OSUGISci::oregon-renewable-energy-siting-assessment-oresa-final-report/explore
- DLCD, *Finding Opportunities and Reducing Conflicts in Siting Photovoltaic Solar Power Generation Facilities* (Dec. 2025), available at https://www.oregon.gov/lcd/Publications/HB%203409%20%E2%80%94%20Finding%20Opportunities%20and%20Reducing%20Conflicts%20in%20Siting%20Photovoltaic%20Solar%20Power%20Generation%20Facilities.pdf
- Oregon Natural Desert Association et al., *Siting Renewable Energy in Oregon: Voluntary Guidelines Developed Through Outreach and Engagement* (March 2023), available at https://onda.org/wp-content/uploads/2023/04/OSSC_Renewable_Energy_Siting_Guidelines.pdf
- U.S. Bureau of Land Management, *Greater Sage-Grouse Approved Resource Management Plan Amendment for Oregon* (2025), available at https://eplanning.blm.gov/public_projects/?doc=%2F2016719%2F200502020%2F20126642%2F251026622%2FOregon%20ROD_ARMPA%20-%201.15.2025.pdf
- U.S. Bureau of Land Management, *Utility-Scale Solar Energy Development Programmatic Environmental Impact Statement/Resource Management Plan Amendment* (2024), available at https://blmsolar.anl.gov/solar-peis-2023/
- U.S. Bureau of Land Management, *West-wide Energy Corridor Information Center*, available at West-wide Energy Corridor Information Center

List of other appendices for this Report (listed by appearance in main report):

Appendix B: Oregon's Electricity Needs
Appendix C: Assessment of Public Comments on Barriers to Clean Energy Deployment
Appendix D: Framing Guidance for ODOE on Incorporating the Equity & Justice Framework
Appendix E: Interconnection Processes in Oregon

Appendix B: Oregon's Electricity Needs

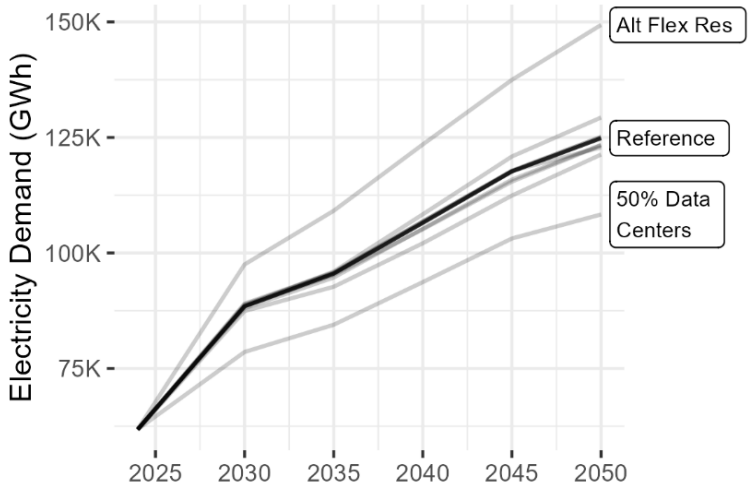
The Report on Reducing Barriers to Clean Energy Deployment begins by acknowledging that Oregon's current supply of electricity generating facilities will not be sufficient to meet rapidly rising demand for electricity from various sources, including data centers and electrification. More resources are needed. The report examines barriers affecting the development of certain types of electricity generation facilities. This appendix provides additional context on (1) rising demand for electricity and (2) the uncertainty of need for in-state generating resources. While this appendix provides information about statewide and regional issues, it is important to understand that not all Oregon utilities face the same challenges, and this appendix does not comprehensively describe all challenges that might exist at the scale of individual utility systems.

Tech Loads are the Single Greatest Driver of Near-Term Needs

As the North American Electric Reliability Corporation notes, "Rapid forecasted demand growth is driving the need for more resources."[xxxix] At a regional scale, sources of increasing demand include population growth, increased use of air conditioning, transportation electrification, building electrification, and new large tech loads, such as data centers.[xl]

Modeling undertaken for the Oregon Energy Strategy provides a state-level perspective for Oregon.[xli] In the near-term, it found that "tech loads are the greatest driver of growing electricity demand."[xlii] By 2030, in most modeling runs, Oregon's electricity demand increases approximately 40 percent relative to 2024 levels. The chart to the right shows growth in electricity demand in all 10 modeling runs.

Figure 1: Electricity Demand in Oregon Across All 10 Modeling Runs (2024-2050)



Notes: Reference Scenario is shown in bold. All 10 modeling runs are shown but may not be distinguishable due to overlap. Modeling runs with the highest and lowest growth are labeled.

This forecast is highly uncertain. A key modeling input, selected based on public engagement, was the Northwest Power & Conservation Council's "mid-high" forecast of 3,976 megawatts of incremental tech load across the region, with a significant portion occurring in Oregon. In most Energy Strategy modeling runs, the "mid-high" forecast was used as the assumption for regional growth by 2030, with 1.5 percent load growth annually thereafter.[xliii] One

[xxxix] NERC, Long-Term Reliability Assessment (January 2026) at 8.
[xl] *E.g.,* NERC, Long-Term Reliability Assessment at 157; PNUCC, 2026 Northwest Regional Forecast (April 2026) at 4.
[xli] For a more comprehensive summary of the modeling, see the Oregon Energy Strategy at pages 25-37 (section titled "Modeling and Technical Analysis) and additional project resources on ODOE's website, including the Modeling Assumptions and Sources, Energy Strategy Technical Approach, and Energy Strategy Modeling Technical Report.
[xlii] Similarly, PNUCC notes "Large new loads—particularly data centers—are the primary driver of regional load growth." 2026 Northwest Regional Forecast at 9.
[xliii] Energy Strategy Modeling Technical Report at 22.

modeling run halved this forecast for the region, with only 1 percent load growth annually after 2030.[xliv] In that case, by 2030, Oregon's electricity demand still increases over 25 percent. Tech loads remain the single greatest driver of near-term needs.

Since the Energy Strategy's publication, the NWPCC has developed a new tech load forecast, including a low, mid and high forecast. The low forecast is 1,513 MW of incremental tech load by 2030; the mid forecast is 2,475 MW; and the high forecast is 4,989 MW.[xlv] The assumption used for the Energy Strategy thus falls between the new mid and high forecasts.

Another uncertainty to this forecast is the modeling assumption that tech loads will have high, constant demand throughout the year. This assumption is consistent with the NWPCC's assumption in the Northwest Power Supply Adequacy Assessment for 2029. However, the Energy Strategy noted that load flexibility could provide significant benefits.[xlvi]

More recent analyses have similarly highlighted this possibility. For example, a January 2025 analysis by GridLab and Sylvan Energy Analytics found that "Large load flexibility could mitigate most or all near-term winter resource adequacy needs under most load scenarios."[xlvii] Similarly, an April 2026 analysis by Energy + Environmental Economics (E3) found that "Additional energy efficiency or demand response [such as 'large load demand flexibility'] can help avoid some further [resource adequacy] investments, if tailored to the unique NW energy-based reliability challenge."[xlviii]

However, the Energy Strategy and both above studies also emphasize that having large load flexibility would *not* fully negate the need for additional electricity generating facilities. The electricity sector's successful expansion is critical to achieving Oregon's long-term goals.

One less discussed aspect of rapid tech load growth is the risk to reliability if operational tech loads unexpectedly stop drawing grid power. The loss of demand can cause imbalance on the grid and require significant corrective action. NERC's 2025 State of Reliability (June 2025) describes this and other new challenges for grid operators relating to tech loads.[xlix] On May 4, 2026, NERC issued a Level 3 Alert[l] directing NERC-registered entities, which include many Oregon utilities, to consider taking certain actions immediately to reduce risks to grid reliability and to report to NERC on this issue by early August 2026 to inform a report to FERC.[li] These large load challenges are emerging issues that add to the continuing challenges that grid operators face in addressing the reliability impacts of a growing share of

[xliv] Energy Strategy Modeling Technical Report at 22.
[xlv] More information is available at the NWPCC's Ninth Plan Technical Elements webpage, under the linked Demand Forecast Workbooks.
[xlvi] See Oregon Energy Strategy at 58.
[xlvii] GridLab and Sylvan Energy Analytics, Near-termNear-term winter resource adequacy challenges in the Pacific Northwest: A review of E3's Northwest RA Study Phase 1 and independent evaluation of near-term winter challenges winter resource adequacy challenges in the Pacific Northwest: A review of E3's Northwest RA Study Phase 1 and independent evaluation of near-term winter challenges at 11.
[xlviii] E3, Resource Adequacy and the Energy Transition in the Pacific Northwest at 19.
[xlix] NERC, 2025 State of Reliability: Assessment Overview of 2024 Bulk Power System Performance at 8 (June 2025).
[l] A Level 3 Alert is NERC's highly level alert. NERC, *About Alerts*, https://www.nerc.com/programs/bulk-power-system-awareness/alerts.
[li] NERC, NERC Issues Level 3 Alert, Reliability Guideline Focused on Large Load Challenges (May 4, 2026), https://www.nerc.com/newsroom/nerc-issues-level-3-alert-reliability-guideline-focused-on-large-load-challenges.

inverter-based resources like wind and solar.[lii] On July 16, 2026, FERC formally directed NERC to develop new reliability standards addressing the reliability risks associated with integrating certain large loads. NERC must do so by December 31, 2026.[liii]

Oregon's Data Center Advisory Committee

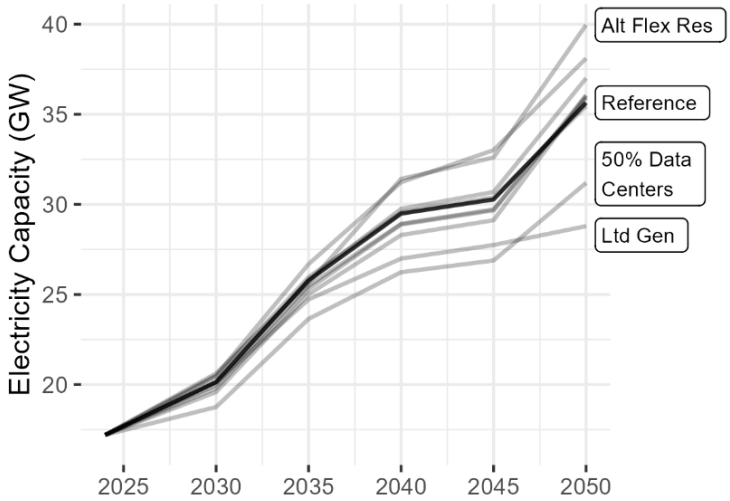
On January 20, 2026, Governor Kotekannounced the convening of a statewide Data Center Advisory Committee, tasked with developing a set of policy recommendations and actions to address issues of statewide significance associated with the growing expansion of new data centers across Oregon. The Committee is expected to produce a report before the end of 2026. Policymakers should be prepared to consider its findings and implement any recommendations.

Rapid Load Growth is Driving Near-Term Resource Needs

The Energy Strategy's modeling runs all showed a substantial increase in installed nameplate capacity of electricity generation facilities in Oregon, predominantly new wind and solar facilities. Critically, these additions contribute to the existing grid, where the modeling showed that hydropower remains Oregon's biggest source of electricity and existing natural gas facilities operate as needed for reliability purposes for decades to come. These additions also complement significant investments in energy efficiency and demand response measures.

Future needs are highly uncertain, owing in significant part to the uncertainty around the pace and scale of demand growth due to tech loads, electrification, and other factors noted above. However, the Energy Strategy's modeling provides some context to help frame the question. The chart to the right shows the modeled growth in total in-state nameplate capacity over time. The modeling run with half the tech load forecast showed a total increase of roughly 2 gigawatts from 2024 to 2030, predominantly solar. Most modeling runs showed a total increase of over 3 GW by 2030.[liv]

Figure 2: Electricity Capacity in Oregon Across All 10 Modeling Runs (2024-2050)



Notes: Reference scenario is shown in bold. All 10 modeling runs are shown but may not be distinguishable due to overlap. Modeling runs with the highest and lowest growth are labeled.

This need is extremely uncertain. These modeling results may understate utilities' actual needs by 2030 if significant tech loads

[lii] NERC's 2025 State of Reliability report similarly summarizes the continued work on that issue. NERC, 2025 State of Reliability at 13.
[liii] FERC Docket No. RD-26-7-00, Order (July 16, 2026).
[liv] The data underlying the chart and these numbers can be reviewed at ODOE's website in the Energy Pathways Modeling Data Library.

materialize as expected, or if less energy efficiency and demand response is secured than was modeled. Further, the model could not account for some of the real-world inefficiencies in power sector operations. For example, when the model selects a new resource, that new resource is assumed to be operational in the year selected, meaning development must have begun some time beforehand. However, as discussed in this report, unexpected delays are a significant barrier to clean energy deployment. Further, the model could not fully account for inefficiencies in utilization of the transmission system. Limited grid capacity is another barrier described in the report.

On the other hand, these modeling results may overstate utilities' actual needs by 2030 if new tech loads are not developed or if they operate more flexibly than modeled, as discussed above. Finding ways to reduce overall demand without unduly restricting the use of electricity is an important cost-saving measure. Cost – including energy affordability concerns – is a barrier described in the report.

Appendix C: Assessment of Public Comments on Barriers to Clean Energy Deployment

This appendix provides additional information about the comments ODOE received about barriers to clean energy deployment and how ODOE considered them in developing the inventory of barriers in the main report.

As described in the report, this appendix documents the comments received about barriers and ODOE's assessment of that input, considering ODOE's research into barriers. This appendix contains every public comment's statement that something is or is not a barrier. Also noted in this appendix: 1) where ODOE disagreed that an item constituted a distinct "barrier"[lv] for purposes of this report's inventory; 2) where a public comment addresses something beyond the scope of this report; and 3) where a statement informed ODOE's identification of any of the barriers described in this report. ODOE reviewed all comments and appreciates the input.

Please remember this report has a focused scope. As described in the report, "barriers to the permitting … of clean energy projects" includes consideration of barriers that may arise in permitting processes that are outside EFSC's jurisdiction and are not required to be completed prior to receipt of an approved site certificate from EFSC or an approved county land-use permit. For example, it includes consideration of barriers that may arise in certain federal permitting requirements. However, it does not examine any aspect of EFSC's processes nor any aspect of Tribal consultation requirements that must be met before EFSC issues a site certificate or a county issues a land use permit. This interpretation is consistent with the report's interpretation that "clean energy projects" means certain facilities that already received siting approval but are not built or under construction.

Below are two tables. Table 1 is a simplified version of Table 2. Table 2 has five columns:

- The first column is the number of the statement (ODOE counted 111 total),
- The second column either is marked as null ("-") or is the number of the statement within the scope of this report (ODOE counted 35 total);
- The third column is an abbreviated form of commenter's name;[lvi]
- The fourth column is the exact language of the comment received; and
- The fifth column indicates how the statement was inventoried into the draft report or indicates why the statement was not included. Rows for the latter category are color-coded in gray and are marked as null ("-") in the second column.

The first table is limited to the 35 statements within the scope of this report. It omits the first column described above.

[lv] ODOE did not adopt a formal definition for what constitutes a "barrier" for purposes of this report, but in its review, ODOE did consider DLCD's definition in their report pursuant to EO 25-29 section I(2)(b): "'Barriers' means existing state land use provisions or policies, or the absence of such provisions or policies, that unnecessarily constrain siting approvals for clean energy generation project or transmission in areas considered well suited for development. When provisions or policies are present, barriers may be found based on complexity, redundancies, superfluous, or a lack of local resources." As noted in the main body of the report, land use is largely outside this report's scope.

[lvi] The first time an abbreviated form is used in either table, there is a footnote with the commenter's full name.

Both tables generally list statements from comments in the first public comment period before listing statements from comments in the second public comment period. For each public comment period, the statements are listed in order of appearance with the set of comments, and each set of comments is listed in alphabetical order of the commenters' names.

Table 1. Public Comment Excerpts About Barriers Within the Scope of this Report and ODOE's Assessment

Scope #	ID	Comment	ODOE's Assessment
1.	CREA [lvii]	13. Have you experienced or witnessed any barriers to permitting large-scale energy infrastructure that are not described in a prior response? "Overall, we hear the barriers are length of time to go through the permitting process and the cost to get the permit. Those has been consistently the concerns we hear in discussions. Reducing those two pieces would be encouraged, since it is helpful for developers."	Barrier: Cost Barrier: Unexpected delays
2.	CREA	15. Have you experienced or witnessed any market-driven barriers to interconnection of largescale energy infrastructure that are not described in a prior response? Please identify the specific interconnection queue(s) and whether the project(s) at issue was subject to state or federal jurisdiction. "Insufficient high voltage transmission capacity - incumbent utilities are understandably reluctant to expose ratepayers to the risks of developing inter-regional high voltage transmission, which is necessary to connect new, diverse energy sources. Such projects are high-cost, high-risk endeavors that, if unsuccessful, can lead to including the cost of development costs and stranded assets in rates."	Barrier: Cost Barrier: Limited grid capacity
3.	CREA	17. Have you experienced or witnessed any market-driven barriers to construction of large-scale energy infrastructure that are not described in a prior response? ODOE anticipates that market-driven barriers to construction may arise from national or international markets, such as the cost and availability of needed equipment, or from state or local markets, such as local workforce availability. "Solar and wind are clean energy options we can produce in our state today, with many benefits – supplemental funds for landowners, increased taxes and benefit agreements, jobs, and resiliency from home-grown power. Solar remains the cheapest energy source, yet the Federal government seems determined to bring back more coal and oil, which will not help Oregonians or the energy industry here. CREA would prefer to see more investment and consideration of innovative clean technologies, like off-shore wind or hydrogen production and transport."	Barrier: Cost Barrier: Limited cross-jurisdictional coordination

[lvii] "CREA" is the Community Renewable Energy Association.

Scope #	ID	Comment	ODOE's Assessment
4.	Joint [lviii]	"State agencies involved in siting and permitting may face staffing constraints that affect review timelines."	Barrier: Limited staffing capacity
5.	NSE[lix]	"part of the difficulty is the lack of communication between the agencies [ODOE, PUC, DLCD] themselves"	Barrier: Limited cross-jurisdictional coordination
6.	NSE	"The Public Utility Commission oversees the request for proposals ("RFP") process. This is the process utilities must use to procure generation to meet their needs while complying with HB 2021 goals. This process has numerous flaws, but the two main barriers for developers like NewSun are the bias towards utility ownership, and …. Utilities have an incentive to select their own projects because they will earn a profit on those projects' operation, whereas they do not earn a profit on power purchased from a facility owned by someone else."	Barrier: Cost
7.	NSE	"The Public Utility Commission oversees the request for proposals ("RFP") process. This is the process utilities must use to procure generation to meet their needs while complying with HB 2021 goals. This process has numerous flaws, but the two main barriers for developers like NewSun are …, and the generally unfavorable contracts used in that process."	Barrier: Cost
8.	NSE	"delays in several ["Grid Expansion and Reinforcement Portfolio" or "GERP")] schedules"	Barrier: Unexpected delays Barrier: Limited grid capacity
9.	NSE	"the risk that … timelines extend past ITC eligibility windows"	Barrier: Cost Barrier: Unexpected delays Barrier: Limited cross-jurisdictional coordination

[lviii] "Joint" is the group of joint commenters: Climate Solutions, The Nature Conservancy, Oregon Environmental Council, Green Energy Institute at Lewis & Clark Law School, Columbia Riverkeeper, Renewable Northwest, Oregon Business for Climate, and Douglas County Global Warming Coalition.
[lix] "NSE" is NewSun Energy.

Scope #	ID	Comment	ODOE's Assessment
10.	NSE	"Requiring developers to fund full network upgrades (as discussed below), even though system-wide benefits exist, increases project costs and discourages participation. … For projects in the state queue, qualifying facilities ("QFs") still have to pay 100% of any network upgrades they incur by making the interconnection request."	Barrier: Cost Barrier: Limited grid capacity
11.	OSSIA [lx]	"The delay in 2026 for most solar projects in Oregon is not EFSC but BPA or Pacific Power interconnection. Eight years ago when industry concerns about EFSC surfaced, BPA was moving more quickly. Now BPA is the primary delay - it took 10 years for the recently completed Prineville substation to be constructed."	Barrier: Unexpected delays Barrier: Limited grid capacity
12.	PGE[lxi]	"PGE was pleased to see the strategy's recognition of the most critical near-term challenges to providing reliable, affordable, and increasingly clean power including: • Customer affordability;"	Barrier: Cost
13.	PGE	"PGE was pleased to see the strategy's recognition of the most critical near-term challenges to providing reliable, affordable, and increasingly clean power including: …. • The ability to plan, build, and site new transmission infrastructure;"	Barrier: Limited grid capacity
14.	PGE	"PGE was pleased to see the strategy's recognition of the most critical near-term challenges to providing reliable, affordable, and increasingly clean power including: … • The loss of federal policy supports and incentives, as well as a constrained state budget environment."	Barrier: Cost Barrier: Limited cross-jurisdictional coordination
15.	PGE	The sixth step in EFSC's review process is the Contested Case. What barriers to project development or to public participation, if any, have you experienced or witnessed during this stage of the process? "Occasional appeals delaying decisions."	Barrier: Unexpected Delays

[lx] "OSSIA" is the Oregon Solar + Storage Industries Association.
[lxi] "PGE" is Portland General Electric Company.

Scope #	ID	Comment	ODOE's Assessment
16.	PGE	Have you experienced or witnessed any administrative barriers to interconnection of large-scale energy infrastructure that are not described in a prior response? Please identify the specific interconnection queue(s) and whether the project(s) at issue was subject to state or federal jurisdiction. "Transmission provider (BPA) interconnection queues contain more projects than the grid can accommodate."	Barrier: Limited grid capacity
17.	PGE	Have you experienced or witnessed any administrative barriers to interconnection of large-scale energy infrastructure that are not described in a prior response? Please identify the specific interconnection queue(s) and whether the project(s) at issue was subject to state or federal jurisdiction. "Transmission provider (BPA) adjusting from serial to cluster study approach."	Barrier: Unexpected delays Barrier: Limited grid capacity
18.	PGE	Have you experienced or witnessed any administrative barriers to interconnection of large-scale energy infrastructure that are not described in a prior response? Please identify the specific interconnection queue(s) and whether the project(s) at issue was subject to state or federal jurisdiction. "Uncertainty as to magnitude of interconnection upgrade costs."	Barrier: Cost Barrier: Limited grid capacity
19.	PGE	"long lead times and bottlenecks in the interconnection queue"	Barrier: Unexpected delays Barrier: Limited availability of equipment and supplies Barrier: Limited grid capacity
20.	REC[lxii]	"With respect to potential requirements for facility interconnection, pollution control, or other upgrades facing the continuing operation of Oregon PURPA resources, there is considerable concern and potential delay in the procurement and delivery timelines for essential components. Mostly, this concern in for the timely availability of transformers and substations should upgrades be required for recommissioning of mothballed PURPA facilities."	Barrier: Limited availability of equipment and supplies

[lxii] "REC" is the Renewable Energy Coalition.

Scope #	ID	Comment	ODOE's Assessment
21.	RNW [lxiii]	"Siting and permitting is only one step in the full development lifecycle of a project. Many subsequent processes like advancing in the interconnection queue and bidding into an RFP are dependent on the completion of EFSC permitting."	Barrier: Limited cross-jurisdictional coordination
22.	RNW	"Further, some members have reported that permitting costs are increasing in all three categories where costs are incurred: pre-construction, construction, and operations."	Barrier: Cost
23.	ENGO [lxiv]	"Lack of sufficient capacity is one of the biggest barriers to the permitting process, and opponents of strong environmental protection frequently point to delays caused by inadequate staffing to attack essential safeguards for transparency, accountability, and environmental protections."	Barrier: Limited staffing capacity
24.	ENGO	"while a variety of challenges face the build-out of new renewable energy capacity in Oregon, the cost and other bureaucratic obstacles associated with connecting new projects to the Bonneville Power Administration's (BPA) aging transmission infrastructure is often cited as a primary impediment."	Barrier: Cost Barrier: Limited grid capacity

[lxiii] "RNW" is Renewable Northwest.

[lxiv] "ENGO" is the following group of joint commenters: Oregon Wild; Klamath-Siskiyou Wildlands Center; Bird Alliance of Oregon; Oregon Natural Desert Association; Western Environmental Law Center; Columbia Riverkeeper; Cascadia Wildlands; 350 Deschutes; 350 Eugene; Bark; Central Oregon LandWatch; Coast to Cascades Bird Alliance; Indivisible Bend; Kalmiopsis Audubon Society; MCAT, Mobilizing Climate Action Together; Mid-Willamette Bird Alliance; Salem Audubon Society; Sierra Club Oregon; Tualatin Riverkeepers; Umpqua Valley Audubon Society; Umpqua Watersheds; Western Watersheds Project; Willamette Riverkeeper; and Williams Community Forest Project. The document ODOE received used ENGO in the file name and ODOE adopts it here as a short-hand reference for the joint submission.

Scope #	ID	Comment	ODOE's Assessment
25.	Joint[lxv]	"We largely agree with ODOE's identification and analysis of barriers including cost, unexpected delays, limited cross-jurisdictional coordination, limited availability of equipment and supplies, limited staffing capacity, unmet workforce needs, and limited grid capacity."	Barrier: Cost Barrier: Unexpected delays Barrier: Limited cross-jurisdictional coordination Barrier: Limited availability of equipment and supplies Barrier: Limited staffing capacity Barrier: Unmet workforce needs Barrier: Limited grid capacity
26.	Joint	Based on our analysis of EFSC permitting data, 48% of certificate holders have to make a change to a project after the site certificate has been issued. There are a number of reasons why this is the case ranging from project financing realities, to cost and technology changes that may have occurred throughout the development process, to larger headwinds in the clean energy industry and the specificity that is required when submitting an application."	Barrier: Cost Barrier: Unexpected delays Barrier: Limited cross-jurisdictional coordination Barrier: Limited availability of equipment and supplies
27.	Joint	"Interconnection queues in the Pacific Northwest, like much of the country, are backlogged, and projects face multiyear timelines and major costs before being grid-connected. The key barrier is limited grid capacity, as this report notes, meaning that the transmission system cannot handle new generators without first undergoing major upgrades. Essentially, we don't have enough transmission capacity to support new generation."	Barrier: Cost Barrier: Limited grid capacity

[lxv] "Joint" is the group that self-identified as "joint commenters": Renewable Northwest, Climate Solutions, The Nature Conservancy, Oregon Environmental Council, BlueGreen Alliance, NW Energy Coalition, Mobilizing Climate Action Together, Green Energy Institute at Lewis & Clark Law School, and Oregon Solar + Storage Industries Association.

Scope #	ID	Comment	ODOE's Assessment
28.	Joint	"The question is then, how can ODOE, OPUC, and DLCD facilitate interconnection, recognizing that the two agencies don't have much control over those processes. Most clean energy projects are either waiting in the Bonneville Power Administration's ("BPA") paused interconnection queue or are being processed through PacifiCorp or Portland General Electric's queues, which are FERC jurisdictional."	Barrier: Limited cross-jurisdictional coordination
29.	PGE[lxvi]	"The report should acknowledge that grid capacity challenges occur across the transmission, sub-transition and distribution systems."	Barrier: Limited grid capacity
30.	PGE	"PGE generally agrees with the report's conclusion that transmission and interconnection challenges are among the most significant barriers facing resource development. … The underlying problem is … insufficient transmission capacity, …. the absence of regulatory mechanisms that support timely investment in long-lead infrastructure…"	Barrier: Cost Barrier: Limited grid capacity
31.	PGE	"withdrawal decisions are often commercially sensitive and can be influenced by financing conditions, equipment costs, tax policy changes, permitting outcomes, and evolving market conditions. … Queue withdrawals are often symptoms of broader cost challenges, supply chain delays, and transmission constraints rather than the root cause of project delays"	Barrier: Cost Barrier: Limited cross-jurisdictional coordination Barrier: Limited availability of equipment and supplies Barrier: Limited grid capacity
32.	PGE	"Regulatory Frameworks for Long-Lead Infrastructure: Many transmission projects and major generation facilities require large investment many years before they enter service. Existing cost recovery frameworks may not provide sufficient certainty to support timely development. Oregon should explore mechanisms that provide regulatory certainty for prudent long-term infrastructure investments while maintaining appropriate oversight and customer protections."	Barrier: Cost

[lxvi] "PGE" is Portland General Electric Company. ODOE received two sets of comments from PGE during the second public comment period.

Scope #	ID	Comment	ODOE's Assessment
33.	PGE	"Federal and Regional Transmission Processes: Many of the barriers identified in the report originate outside state jurisdiction. Bonneville Power Administration transmission policies, regional planning processes, interconnection procedures, and federal permitting timelines significantly influence project development. Continued engagement with federal agencies and regional entities will be essential to improving outcomes."	Barrier: Limited cross-jurisdictional coordination
34.	PGE	"PGE appreciates ODOE's efforts and supports continued collaboration to reduce barriers to clean energy deployment. We agree that interconnection and transmission constraints warrant attention, and that improved coordination can provide meaningful benefits."	Barrier: Limited cross-jurisdictional coordination Barrier: Limited grid capacity
35.	WSPA [lxvii]	"Oregon's energy transition is being shaped by multiple overlapping policies, programs, and regulatory initiatives. To maximize effectiveness and minimize unintended consequences, policymakers should ensure coordination across agencies, sectors, and jurisdictions. Without effective coordination, overlapping or conflicting policies may inadvertently harm affordability, reduce system reliability, or diminish the effectiveness of emissions reductions. Well-coordinated policies can help avoid duplication, improve regulatory efficiency, support investment certainty, and enable a broader range of technologies and fuels to contribute toward Oregon's energy and environmental objectives while maintaining affordability and reliability."	Barrier: Limited cross-jurisdictional coordination

[lxvii] "WSPA" is Western States Petroleum Association.

Table 2. Public Comment Excerpts About Barriers and ODOE's Assessment

#	Scope #	ID	Comment	ODOE's Assessment
1.	-	Cobb	"I want to assure we do not further pollute the Earth. … Yes. I recommend Oregon puts up barriers to Nuclear (even modular) energy solutions"	Other: Land use siting This statement is out of scope for this draft report, which is focused on projects that have already obtained siting approval.
2.	1.	CREA [lxix]	13. Have you experienced or witnessed any barriers to permitting large-scale energy infrastructure that are not described in a prior response? "Overall, we hear the barriers are length of time to go through the permitting process and the cost to get the permit. Those has been consistently the concerns we hear in discussions. Reducing those two pieces would be encouraged, since it is helpful for developers."	Barrier: Cost Barrier: Unexpected delays
3.	2.	CREA	15. Have you experienced or witnessed any market-driven barriers to interconnection of largescale energy infrastructure that are not described in a prior response? Please identify the specific interconnection queue(s) and whether the project(s) at issue was subject to state or federal jurisdiction. "Insufficient high voltage transmission capacity - incumbent utilities are understandably reluctant to expose ratepayers to the risks of developing inter-regional high voltage transmission, which is necessary to connect new, diverse energy sources. Such projects are high-cost, high-risk endeavors that, if unsuccessful, can lead to including the cost of development costs and stranded assets in rates."	Barrier: Cost Barrier: Limited grid capacity

[lxviii] "Cobb" is an interested person, S.C. Cobb.
[lxix] "CREA" is the Community Renewable Energy Association.

#	Scope #	ID	Comment	ODOE's Assessment
4.	-	CREA	16. Have you experienced or witnessed any administrative barriers to construction of large-scale energy infrastructure that are not described in a prior response? Please note and describe if you see the barrier as arising specifically from a state administrative process. "Yes. Land use siting remains a huge barrier, especially for solar projects, even when being sited in rural areas in Eastern Oregon."	Other: Land use siting ODOE disagrees that siting is itself a "barrier" for purposes of this report. Siting is one of many steps necessary in facility development.
5.	-	CREA	16. Have you experienced or witnessed any administrative barriers to construction of large-scale energy infrastructure that are not described in a prior response? Please note and describe if you see the barrier as arising specifically from a state administrative process. "The EFSC process, as it applies to high voltage transmission project applicants, is designed for traditional utilities, rather than independent transmission developers. Independents, for example, construct projects on a cost-competitive EPC basis, therefore certain details required in the EFSC process, such as how many truckloads of dirt will be required, amount of concrete to be used, and where spoils will be disposed of, will be finalized by the bid-winning EPC provider. These cost and supply risks are taken by the EPC contractor and independent developer. A utility applicant that is performing detailed engineering internally, as many utilities do, or through established contracts is more likely be able to provide such details far in advance and the cost and supply risks borne by the utility and its ratepayers."	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.

#	Scope #	ID	Comment	ODOE's Assessment
6.	3.	CREA	17. Have you experienced or witnessed any market-driven barriers to construction of large-scale energy infrastructure that are not described in a prior response? ODOE anticipates that market-driven barriers to construction may arise from national or international markets, such as the cost and availability of needed equipment, or from state or local markets, such as local workforce availability. "Solar and wind are clean energy options we can produce in our state today, with many benefits – supplemental funds for landowners, increased taxes and benefit agreements, jobs, and resiliency from home-grown power. Solar remains the cheapest energy source, yet the Federal government seems determined to bring back more coal and oil, which will not help Oregonians or the energy industry here. CREA would prefer to see more investment and consideration of innovative clean technologies, like off-shore wind or hydrogen production and transport."	Barrier: Cost Barrier: Limited cross-jurisdictional coordination
7.	-	Joint[lxx]	"There is currently no standardized or transparent definition of what constitutes sufficient or effective community engagement for large-scale energy projects."	Other: Competing Land Use Priorities This statement is out of scope for this draft report, which is focused on projects that have already obtained siting approval. Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.

[lxx] "Joint" is the group of joint commenters: Climate Solutions, The Nature Conservancy, Oregon Environmental Council, Green Energy Institute at Lewis & Clark Law School, Columbia Riverkeeper, Renewable Northwest, Oregon Business for Climate, and Douglas County Global Warming Coalition.

#	Scope #	ID	Comment	ODOE's Assessment
8.	-	Joint	"Oregon's land use framework is not fully aligned with state clean energy deployment goals. Most renewable energy projects permitted through EFSC require a "Goal 3 exception." Under Oregon's land use planning system, Goal 3 supports the protection of the state's farmland and requires local jurisdictions to impose restrictions on development on farmland. To obtain a Goal 3 exception, developers have to provide "reasons" that justify such an exception to Oregon's land use planning goals. Over time the criteria for justifying a Goal 3 exception have become increasingly narrow for siting large scale solar. For example, EFSC has historically considered local economic benefits broadly as a suitable justification, but more recently has required benefits specifically to the local agricultural economy. Moreover, developers cannot point to policies like HB 2021 or the statewide RPS as "reasons" that justify an exception to Goal 3. This creates a major barrier to deploying clean energy resources at the scale needed to meet state climate and clean energy laws and represents a fundamental misalignment between Oregon's land use policies and energy policies."	Other: Competing Land Use Priorities This statement is out of scope for this draft report, which is focused on projects that have already obtained siting approval. Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.
9.	4.	Joint	"State agencies involved in siting and permitting may face staffing constraints that affect review timelines."	Barrier: Limited staffing capacity
10.	5.	NSE[lxxi]	"part of the difficulty is the lack of communication between the agencies [ODOE, PUC, DLCD] themselves"	Barrier: Limited cross-jurisdictional coordination
11.	6.	NSE	"The Public Utility Commission oversees the request for proposals ("RFP") process. This is the process utilities must use to procure generation to meet their needs while complying with HB 2021 goals. This process has numerous flaws, but the two main barriers for developers like NewSun are the bias towards utility ownership, and …. Utilities have an incentive to select their own projects because they will earn a profit on those projects' operation, whereas they do not earn a profit on power purchased from a facility owned by someone else."	Barrier: Cost

[lxxi] "NSE" is NewSun Energy.

#	Scope #	ID	Comment	ODOE's Assessment
12.	7.	NSE	"The Public Utility Commission oversees the request for proposals ("RFP") process. This is the process utilities must use to procure generation to meet their needs while complying with HB 2021 goals. This process has numerous flaws, but the two main barriers for developers like NewSun are …, and the generally unfavorable contracts used in that process."	Barrier: Cost
13.	-	NSE	"Barrier: Goal 3 and associated Exclusive Farm Use ("EFU") constraints remain a primary barrier to siting energy infrastructure by limiting viable locations, increasing project costs, and creating uncertainty. … From a land use perspective, the primary barrier and challenge to acquiring permits is the broad requirement to acquire a Goal 3 exception, which is an objective standard highly prone to appeal and unfavorable case law. EFU Zones cover large portions of have strong solar or wind power potential, but they are subject to Goal 3 protections, which makes renewable energy development difficult."	Other: Competing Land Use Priorities This statement is out of scope for this draft report, which is focused on projects that have already obtained siting approval.
14.	8.	NSE	"delays in several ["Grid Expansion and Reinforcement Portfolio" or "GERP")] schedules"	Barrier: Unexpected delays Barrier: Limited grid capacity
15.	9.	NSE	"the risk that … timelines extend past ITC eligibility windows"	Barrier: Cost Barrier: Unexpected delays Barrier: Limited cross-jurisdictional coordination

#	Scope #	ID	Comment	ODOE's Assessment
16.	-	NSE	"ODOT and local jurisdictions are consistently not allowing transmission and gen-tie lines within public rights-of-way, despite statutory direction under HB 3179. … the Oregon Department of Transportation ("ODOT") has regularly denied or refused to process applications to locate transmission lines within highway rights-of-way. … House Bill 3179 amended ORS 374.305 to read, "In reviewing or granting an application for written permission [to place a transmission line in the right-of-way], the department or a county court or board of county commissioners may not discriminate against or favor a renewable energy facility." Despite the statutory mandate, ODOT has not granted such decisions to our knowledge."	Other: Limitations on transmission in public rights-of-way This report is not examining barriers to transmission development. This input has been shared with other agency staff for consideration in workstreams focused on transmission.
17.	10.	NSE	"Requiring developers to fund full network upgrades (as discussed below), even though system-wide benefits exist, increases project costs and discourages participation. … For projects in the state queue, qualifying facilities ("QFs") still have to pay 100% of any network upgrades they incur by making the interconnection request."	Barrier: Cost Barrier: Limited grid capacity
18.	-	NSE	"Barrier: We will not meet the HB 2021 Clean Energy Targets. As reported by The Oregonian, it is very unlikely that Oregon utilities will meet the emissions targets for HB 2021 (see chart below).16"	Other: Projections of insufficient clean energy to meet clean energy targets ODOE disagrees that a projection of insufficient clean energy is itself a "barrier" to clean energy deployment.
19.	-	ONDA	"Certain past proposals for renewable energy siting in Oregon's high desert were poorly designed and extremely contentious, pitting potential partners in clean energy development against each other in prolonged, costly litigation that could have been prevented with better planning and smarter siting prerequisites. Eighteen years ago proposals failed to consider other resource needs and were as audacious as siting wind turbines atop Oregon's inimitable Steens Mountain."	Other: Competing Land Use Priorities This statement is out of scope for this draft report, which is focused on projects that have already obtained siting approval.

[lxxii] "ONDA" is the Oregon Natural Desert Association.

#	Scope #	ID	Comment	ODOE's Assessment
20.	-	OSSIA	"1. Before applying to EFSC a project developer can undertake preliminary activities and begin public engagement. This time period before a developer comes to EFSC is referred to as PreNotice of Intent. What barriers to project development or to public participation, if any, have you experienced or witnessed during this time period? EFSC is not a body of experts in energy facilities, their construction or operation, but rather an expert in the process of navigating the path to approval. …"	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.
21.	11.	OSSIA	"The delay in 2026 for most solar projects in Oregon is not EFSC but BPA or Pacific Power interconnection. Eight years ago when industry concerns about EFSC surfaced, BPA was moving more quickly. Now BPA is the primary delay - it took 10 years for the recently completed Prineville substation to be constructed."	Barrier: Unexpected delays Barrier: Limited grid capacity
22.	-	OSSIA	"When Obsidian's Solar Center required an [EFSC] amendment to change the date for beginning of construction due to BPA [interconnection] delays, the date change required hundreds of hours of EFSC staff time and $100,000 of additional developer expense."	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.
23.	-	OSSIA	"EFSC processes are stuck in the past and need modernize.. EFSC doesn't need to hire people and pay them for 100's of hours to confirm completion of application. AI algorithms can read through an application and figure out if the application is complete, providing automated notices to applicants to self correct inconsistent or insufficient information."	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.

[lxxiii] "OSSIA" is the Oregon Solar + Storage Industries Association.

#	Scope #	ID	Comment	ODOE's Assessment
24.	-	OSSIA	"EFSC has concluded that a solar farm will reach the end of its life and after must be completely dismantled and the site returned to a pre-development agricultural state.. This may make sense in some high value farm lands but the solar farms in EFSC jurisdiction are almost always on rocky, unirrigated, low productive farm land without expectation for returning to this pre-energy development, marginal value. The greatest level of effort for developing utility scale renewable energy resources is around siting, funding and constructing the substation and transmission lines. Once that has occurred, the land is now a rare and valuable energy asset and it will make sense to continue that use as an energy hosting site beyond the anticipated life of the solar or battery. For example, Obsidian Renewable's Fort Rock property has never made any revenue from agricultural activities. The owners couldn't even fund fence maintenance. The land had never been cultivated, plowed, or irrigated and is situated in a watershed with a decades old development moratorium. Obligating the project developer to post a bond to pay for the entire cost of removal and decompaction of soils after 35 years and to maintain the bond even though this agricultural restoration is highly unlikely and not in alignment with Oregon's clean energy objectives does not make sense. It is far more likely that after 35 years the site will be re-energized with updated renewable energy technology and remain in energy service to the state."	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.
25.	-	OSSIA	"EFSC is a volunteer council and does not have the capacity to assess/process applications thoroughly in a timely fashion."	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.

#	Scope #	ID	Comment	ODOE's Assessment
26.	-	OSSIA	"EFSC does not have a mechanism to approve non-controversial applications without fulfilling lengthy meeting requirements, leading to extensive agendas that take unreasonably long to complete - requiring more meetings."	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.
27.	12.	PGE [lxxiv]	"PGE was pleased to see the strategy's recognition of the most critical near-term challenges to providing reliable, affordable, and increasingly clean power including: • Customer affordability;"	Barrier: Cost
28.	-	PGE	"PGE was pleased to see the strategy's recognition of the most critical near-term challenges to providing reliable, affordable, and increasingly clean power including: … • The escalating risks associated with wildfires;"	Other: Wildfire risk ODOE acknowledges wildfire risk can be a significant contributing factor to the issues of cost discussed in the report. However, wildfire risk is also an issue broader than the scope of this report. The Oregon Energy Strategy included a policy action on this issue (Electricity Action 2), which is now underway. For more information, please see OPUC Docket No. UM 2427, In the Matter of Public Utility Commission of Oregon, Study on Utility Wildfire Liability and Accountability.

[lxxiv] "PGE" is Portland General Electric Company.

#	Scope #	ID	Comment	ODOE's Assessment
29.	-	PGE	"PGE was pleased to see the strategy's recognition of the most critical near-term challenges to providing reliable, affordable, and increasingly clean power including: … • The need to maintain reliability amid increasingly severe weather, capacity shortages as baseload plants retire, and rapidly growing electricity demand;"	Other: Need to maintain reliability given challenges ODOE intends this report to help address this issue. However, this statement is not indicative of a discrete "barrier" for purposes of this report.
30.	13.	PGE	"PGE was pleased to see the strategy's recognition of the most critical near-term challenges to providing reliable, affordable, and increasingly clean power including: …. • The ability to plan, build, and site new transmission infrastructure;"	Barrier: Limited grid capacity
31.	14.	PGE	"PGE was pleased to see the strategy's recognition of the most critical near-term challenges to providing reliable, affordable, and increasingly clean power including: … • The loss of federal policy supports and incentives, as well as a constrained state budget environment."	Barrier: Cost Barrier: Limited cross-jurisdictional coordination
32.	-	PGE	Before applying to EFSC, a project developer can undertake preliminary activities and begin public engagement. This time period before a developer comes to EFSC is referred to as Pre-Notice of Intent. What barriers to project development or to public participation, if any, have you experienced or witnessed during this time period? "Fragmented ownership or unwilling landowners can slow or halt development, particularly as it relates to transmission"	Other: Competing Land Use Priorities This statement is out of scope for this draft report, which is focused on projects that have already obtained siting approval.

#	Scope #	ID	Comment	ODOE's Assessment
33.	-	PGE	Before applying to EFSC, a project developer can undertake preliminary activities and begin public engagement. This time period before a developer comes to EFSC is referred to as Pre-Notice of Intent. What barriers to project development or to public participation, if any, have you experienced or witnessed during this time period? "Projects must show a viable transmission path and if BPA or another transmission provider hasn't granted service, EFSC may request additional analysis."	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.
34.	-	PGE	The third step in EFSC's review process is the Application. What barriers to project development or to public participation, if any, have you experienced or witnessed during this stage of the process? "A lot of information is required without clarity as to how it is used in determining if a site certificate should be issued."	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.
35.	-	PGE	The fourth step in EFSC's review process is the Draft Proposed Order. What barriers to project development or to public participation, if any, have you experienced or witnessed during this stage of the process? "Wildlife and/or habitat concerns (sage grouse, avian)."	Other: Competing Land Use Priorities This statement is out of scope for this draft report, which is focused on projects that have already obtained siting approval.
36.	-	PGE	The fourth step in EFSC's review process is the Draft Proposed Order. What barriers to project development or to public participation, if any, have you experienced or witnessed during this stage of the process? "Projects on high-value farmland or protected land often face significant restrictions or mitigation requirements."	Other: Competing Land Use Priorities This statement is out of scope for this draft report, which is focused on projects that have already obtained siting approval.

#	Scope #	ID	Comment	ODOE's Assessment
37.	-	PGE	The fourth step in EFSC's review process is the Draft Proposed Order. What barriers to project development or to public participation, if any, have you experienced or witnessed during this stage of the process? "Duplication of permit requirements as site certificate conditions, which could unnecessarily require an amendment down the road if the lead agency changes standard permit conditions that should not trigger an amendment and review by Council if the lead agency has evaluated the permit and determined the change is still protective."	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.
38.	-	PGE	The fifth step in EFSC's review process is the Proposed Order. There is not an explicit process for public participation in this step. What barriers to project development, if any, have you experienced or witnessed during this stage of the process? "Organized local opposition of farmland, wildlife impacts, scenic impacts, property value concerns."	Other: Competing Land Use Priorities This statement is out of scope for this draft report, which is focused on projects that have already obtained siting approval.
39.	-	PGE	The fifth step in EFSC's review process is the Proposed Order. There is not an explicit process for public participation in this step. What barriers to project development, if any, have you experienced or witnessed during this stage of the process? "Extensive comment records and requests for additional studies that can result in an elongated and costly process."	Other: Competing Land Use Priorities This statement is out of scope for this draft report, which is focused on projects that have already obtained siting approval. Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.

#	Scope #	ID	Comment	ODOE's Assessment
40.	-	PGE	The sixth step in EFSC's review process is the Contested Case. What barriers to project development or to public participation, if any, have you experienced or witnessed during this stage of the process? "Intervention by landowner coalitions, environmental NGOs."	Other: Competing Land Use Priorities This statement is out of scope for this draft report, which is focused on projects that have already obtained siting approval. Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.
41.	-	PGE	The sixth step in EFSC's review process is the Contested Case. What barriers to project development or to public participation, if any, have you experienced or witnessed during this stage of the process? "Legal discovery and expert testimony."	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.
42.	15.	PGE	The sixth step in EFSC's review process is the Contested Case. What barriers to project development or to public participation, if any, have you experienced or witnessed during this stage of the process? "Occasional appeals delaying decisions."	Barrier: Unexpected Delays

#	Scope #	ID	Comment	ODOE's Assessment
43.	-	PGE	Have you experienced or witnessed any barriers to permitting large-scale energy infrastructure that are not described in a prior response? "Federally managed lands require BLM or US Forest Service action to obtain right of ways."	Other: Permitting requirements ODOE disagrees that this statement reflects a "barrier" for purposes of this report. However, ODOE acknowledges the item can be implicated in certain barriers, including unexpected delays, limited staffing capacity, and limited cross-jurisdictional coordination.
44.	-	PGE	Have you experienced or witnessed any barriers to permitting large-scale energy infrastructure that are not described in a prior response? "NEPA processes can cause significant delays."	Other: Permitting requirements ODOE disagrees that this statement reflects a "barrier" for purposes of this report. However, ODOE acknowledges the item can be implicated in certain barriers, including unexpected delays, limited staffing capacity, and limited cross-jurisdictional coordination.

#	Scope #	ID	Comment	ODOE's Assessment
45.	-	PGE	Have you experienced or witnessed any barriers to permitting large-scale energy infrastructure that are not described in a prior response? "Tribal consultation and cultural resource protection play an increasingly important role."	Other: Tribal consultation and cultural resource protection ODOE interprets this statement as acknowledging an important aspect of facility permitting, not as flagging a "barrier" for purposes of this report. However, ODOE includes the statement here to acknowledge it was offered in response to a request for information on any barriers. ODOE also acknowledges Tribes, relevant state agencies, and other interested parties like local historical societies can suffer from limited staffing capacity and unmet workforce needs, two of the barriers described in the draft report.
46.	-	PGE	Have you experienced or witnessed any barriers to permitting large-scale energy infrastructure that are not described in a prior response? "Federal environmental review if the project involves federal land, federal permits, or federal funding (grants)."	Other: Permitting requirements ODOE disagrees that this statement reflects a "barrier" for purposes of this report. However, ODOE acknowledges the item can be implicated in certain barriers, including unexpected delays, limited staffing capacity, and limited cross-jurisdictional coordination.

#	Scope #	ID	Comment	ODOE's Assessment
47.	-	PGE	Have you experienced or witnessed any barriers to permitting large-scale energy infrastructure that are not described in a prior response? "Federal endangered species trigger consultation."	Other: Permitting requirements ODOE disagrees that this statement reflects a "barrier" for purposes of this report. However, ODOE acknowledges the item can be implicated in certain barriers, including unexpected delays, limited staffing capacity, and limited cross-jurisdictional coordination.
48.	-	PGE	Have you experienced or witnessed any barriers to permitting large-scale energy infrastructure that are not described in a prior response? "Projects affecting wetlands or waterways require permits."	Other: Permitting requirements ODOE disagrees that this statement reflects a "barrier" for purposes of this report. However, ODOE acknowledges the item can be implicated in certain barriers, including unexpected delays, limited staffing capacity, and limited cross-jurisdictional coordination.
49.	-	PGE	Have you experienced or witnessed any barriers to permitting large-scale energy infrastructure that are not described in a prior response? "State wildlife and natural resource reviews."	Other: Permitting requirements ODOE disagrees that this statement reflects a "barrier" for purposes of this report. However, ODOE acknowledges the item can be implicated in certain barriers, including unexpected delays, limited staffing capacity, and limited cross-jurisdictional coordination.

#	Scope #	ID	Comment	ODOE's Assessment
50.	16.	PGE	Have you experienced or witnessed any administrative barriers to interconnection of large-scale energy infrastructure that are not described in a prior response? Please identify the specific interconnection queue(s) and whether the project(s) at issue was subject to state or federal jurisdiction. "Transmission provider (BPA) interconnection queues contain more projects than the grid can accommodate."	Barrier: Limited grid capacity
51.	17.	PGE	Have you experienced or witnessed any administrative barriers to interconnection of large-scale energy infrastructure that are not described in a prior response? Please identify the specific interconnection queue(s) and whether the project(s) at issue was subject to state or federal jurisdiction. "Transmission provider (BPA) adjusting from serial to cluster study approach."	Barrier: Unexpected delays Barrier: Limited grid capacity
52.	18.	PGE	Have you experienced or witnessed any administrative barriers to interconnection of large-scale energy infrastructure that are not described in a prior response? Please identify the specific interconnection queue(s) and whether the project(s) at issue was subject to state or federal jurisdiction. "Uncertainty as to magnitude of interconnection upgrade costs."	Barrier: Cost Barrier: Limited grid capacity

#	Scope #	ID	Comment	ODOE's Assessment
53.	-	PGE	Do you have any recommendations for the State of Oregon to address the barriers you have described? "Wildfire risk is the most immediate risk to the electric sector Unbounded wildfire liability remains the single largest risk facing the electric sector in Oregon. Customers are already paying the price – through higher insurance costs, higher borrowing costs, and higher mitigation costs. Oregon's economy is at risk, as liability uncertainty deters investment, raises the cost of new clean energy projects, and undermines the state's decarbonization and economic development goals. Without action at the state and/or federal level, this risk threatens Oregon's economy, limits clean energy deployment, and drives higher costs for all customers. As Oregon Public Utility Commission Chair Letha Tawney wrote her August 1, 2025, letter to Governor Kotek: 'Unbounded utility wildfire liability will drive up the cost of utility capital, raising the overall cost of every utility investment. It will also continue to require the prioritization of scarce capital towards extensive grid hardening, pressuring customer bills and limiting capacity for goals such as economic development and decarbonization, as we have observed in California.' To meaningfully work toward affordable, reliable, clean energy in Oregon, the state must recognize the connections between wildfire risk and other many other energy policies and prioritize addressing wildfire liability risk in the electric sector. This is not just a PGE problem – it is an Oregon problem that requires a statewide solution. Oregon can learn from other states that have taken action to provide utilities with liability limits or coverage mechanisms that protect customers, investors, and communities alike."	Other: Wildfire risk ODOE acknowledges wildfire risk can be a significant contributing factor to the issues of cost discussed in the report. However, wildfire risk is also an issue broader than the scope of this report. The Oregon Energy Strategy included a policy action on this issue (Electricity Action 2), which is now underway. For more information, please see OPUC Docket No. UM 2427, In the Matter of Public Utility Commission of Oregon, Study on Utility Wildfire Liability and Accountability.

#	Scope #	ID	Comment	ODOE's Assessment
54.	-	PGE	"One of the largest obstacles at EFSC is the inability of the council to evaluate any clean energy project as necessarily conducive to the state's climate and clean energy goals."	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.
55.	19.	PGE	"long lead times and bottlenecks in the interconnection queue"	Barrier: Unexpected delays Barrier: Limited availability of equipment and supplies Barrier: Limited grid capacity

#	Scope #	ID	Comment	ODOE's Assessment
56.	-	PGE	"Some of the technologies required to reach 100% clean electricity have not reached commercial maturity or are still in development."	Other: Emerging technologies not yet commercially available This report is focused on commercially available forms of wind, solar, and battery energy storage. The Oregon Energy Strategy recognized that "The energy strategy modeling clearly indicated the value of having high-capacity resources to complement hydro and variable renewable resources on the electricity system. Several emerging technologies may help meet this need; however, today it is not clear which will present the most cost-competitive opportunities for Oregon." The Energy Strategy recommended a policy action to inform this need (Electricity Action 6). That work is now underway to comply with EO 25-29 section I(3)(b), which directs ODOE to report progress and key findings about advanced and emerging technologies in ODOE's Biennial Energy Reports.

#	Scope #	ID	Comment	ODOE's Assessment
57.	-	REC[lxxv]	"Existing PURPA facilities are poised to continue or reinitiate operations ahead of Oregon's 2030 Small Scale Renewable obligation period but are at risk of closure upon expiration of PPAs if they are unable to align the costs of ongoing operations with published avoided costs that do not fully recognize and monetize facility attributes. In some cases, Title V, or other necessary environmental operating permit renewals, have included requirements for capital intensive facility upgrades upon expiration of the existing and execution of a new PPA. In this case, these highly reliable, Oregon located renewable energy assets face risk of permanent closure if unable to finance capital intensive upgrades. … The above described scenario [regarding interconnection uncertainty] is compounded by lack of certainty with respect to PPA offtake pricing necessary to support both the reliable operation of the facility and the debt service for any required interconnection investments. Without a price point, projects face offtake uncertainty. Without an offtake and a defined revenue projection project owners are unable to secure financing."	Other: Existing facilities This statement is out of scope for this draft report, which is focused on proposed facilities that are not yet built. ODOE acknowledges further investigation into barriers faced by existing facilities may be appropriate.

[lxxv] "REC" is the Renewable Energy Coalition.

#	Scope #	ID	Comment	ODOE's Assessment
58.	-	REC	"For some of REC's existing and previous members, the expiration of a PPA subject to PURPA procurement has triggered closure of the facility based on contemporary avoided cost calculations that did not support continued operations. In these cases, previously permitted, constructed, operating, and interconnected facilities that were temporarily moth balled due to inadequate published avoided cost pricing, now contemplating recommissioning to serve Oregon ratepayers, face the daunting task of re-initiating the lengthy, costly, and uncertain pathway of new generation interconnection requests without any recognition or expeditious treatment consideration for their historical interconnected and load deliverability status. This lack of interconnect-ability certainty results in PPA availability and pricing uncertainty, both of which undermine a facilities ability to access the necessary capital to navigate and complete any necessary network or facility upgrades."	Other: Existing facilities This statement is out of scope for this draft report, which is focused on proposed facilities that are not yet built. ODOE acknowledges further investigation into barriers faced by existing facilities may be appropriate.
59.	20.	REC	"With respect to potential requirements for facility interconnection, pollution control, or other upgrades facing the continuing operation of Oregon PURPA resources, there is considerable concern and potential delay in the procurement and delivery timelines for essential components. Mostly, this concern in for the timely availability of transformers and substations should upgrades be required for recommissioning of mothballed PURPA facilities."	Barrier: Limited availability of equipment and supplies

#	Scope #	ID	Comment	ODOE's Assessment
60.	-	RNW	"The EFSC process has many advantages, including its standards-based nature, well-established stages, rigorous review, and robust public engagement, all of which serve to ensure that a project is sited appropriately, mitigates impacts on people and nature to the greatest extent possible, and complies with state standards. However, what we consistently heard in our conversations with our members is that the time and money required to permit a project at EFSC is a huge barrier. The extended timelines and costs are driven by a variety of factors, including the detailed analysis required very early in the development process, the lack of discretion in the review process afforded by EFSC, and the misalignment between land use policy and energy policy. Some developers have opted out of the EFSC process entirely because of the time and cost involved. Ultimately, the longer and more costly project development is, the more costly energy will be for Oregonians. While some of the siting and permitting barriers we outline in the following comments may seem minor, their cumulative impact is significant and can lead to continual delays and escalating costs. … Our members consistently pointed to the EFSC site certificate timeline as a key barrier to clean energy deployment. Clean energy projects typically take 18-24 months to permit at EFSC, and that timeframe does not include an extended contested case process. In comparison, projects that are permitted at the county level generally take a year at most."	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration for that purpose.
61.	21.	RNW	"Siting and permitting is only one step in the full development lifecycle of a project. Many subsequent processes like advancing in the interconnection queue and bidding into an RFP are dependent on the completion of EFSC permitting."	Barrier: Limited cross-jurisdictional coordination

[lxxvi] "RNW" is Renewable Northwest.

#	Scope #	ID	Comment	ODOE's Assessment
62.	-	RNW	"projects can get caught up in endless cycles of requests for additional information ("RAIs"), with little additional value added"	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.
63.	-	RNW	"contested cases are not time bound, which means this phase holds a lot of uncertainty for project developers. It is unclear how long contested cases are supposed to take and it is hard to know when the process will be completed	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.
64.	-	RNW	"it is difficult to make minor changes to a project without triggering extended review. Site certificate amendments are required for circumstances like extending construction deadlines, adopting newer technologies, adding new facility components, and transferring the site certificate to a new owner. We acknowledge that EFSC has made several updates to what triggers an amendment including the extension of the site certificate validity period"	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.
65.	-	RNW	"EFSC does not currently have a mechanism to approve non-controversial applications or steps that are mostly procedural without fulfilling lengthy meeting requirements, leading to extensive agendas that take unreasonably long to complete - requiring more meetings."	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.

#	Scope #	ID	Comment	ODOE's Assessment
66.	-	RNW	"Members relayed that their projects often get bumped from one Council meeting to the next, resulting in further delays."	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.
67.	-	RNW	"RNW developer members have consistently said that the costs associated with permitting projects at EFSC are too high."	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.
68.	22.	RNW	"Further, some members have reported that permitting costs are increasing in all three categories where costs are incurred: pre-construction, construction, and operations."	Barrier: Cost
69.	-	RNW	"Preparing an application for a site certificate is a time consuming and expensive undertaking. The application requires thirty exhibits and usually ends up running hundreds to thousands of pages in length. The standards EFSC applies and the analysis it requires in the application are the same for every project that goes through the EFSC process. For example, wind and solar projects must complete the same visual analysis, despite wind facilities being visible from much farther away. As another example, small projects require the same type and level of analysis as much larger projects. … In comparison, the scope of resource analysis required at the county level is smaller."	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.

#	Scope #	ID	Comment	ODOE's Assessment
70.	-		"Preparing evidence-based responses to each standard is time consuming and does not add additional value if the standard isn't applicable to the project."	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.
71.	-	RNW	"the application generally requires a level of engineering detail that is unreasonable years before a project will actually reach construction. Solar, wind and inverter technology is all evolving rapidly; for example, the number of solar panels required to produce the same amount of energy can change significantly in just one year, resulting in changes to engineering. Requiring applicants to include information that will functionally be irrelevant by the time the project is constructed"	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.
72.	-	RNW	"Clean energy developers also encounter barriers to development because of capacity constraints and internal practices at EFSC that can delay project review, increase costs, and create unnecessary friction. These challenges include the need to spend significant time explaining development processes to Council members;… Despite the complexity and time consuming nature of the job, Council positions are currently volunteer in nature"	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.
73.	-	RNW	"Clean energy developers also encounter barriers to development because of capacity constraints and internal practices at EFSC that can delay project review, increase costs, and create unnecessary friction. These challenges include… navigating multiple points of contact within EFSC; engaging extensively with EFSC consultants rather than staff; and …. Developers also face prolonged back-and-forth on project conditions that often yields limited additional value relative to the time and resources required."	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.

#	Scope #	ID	Comment	ODOE's Assessment
74.	-	RNW	"Clean energy developers also encounter barriers to development because of capacity constraints and internal practices at EFSC that can delay project review, increase costs, and create unnecessary friction. These challenges include… and experiencing delays when approvals from other agencies require additional confirmation by EFSC. … EFSC often coordinates with other state agencies like the Oregon Department of Fish and Wildlife ("ODFW") to gather feedback on site certificate applications, establish permit conditions, and ensure compliance with those conditions. ESFC plays the role of facilitator between the outside agency and the developer, but there are instances when this role slows down the development process and may not be necessary. For example, one developer relayed an experience where the developer coordinated with ODFW but ODOE then had to confirm that, essentially recreating the previous developer-ODFW coordination and causing delay."	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.

#	Scope #	ID	Comment	ODOE's Assessment
75.	-	RNW	"EFSC has historically been very deferential to other agencies in the permitting process, so much so that projects have been held up by antiquated standards. For example, until quite recently, noise regulations from the Oregon Department of Environmental Quality (ODEQ) were a barrier to solar development. Because many solar projects are in rural areas where ambient noise is very low to begin with, the projected increase in noise was often high enough to trigger the limit, even though the actual noise level of solar facilities is quite low. Moreover, even if the participating landowner where the project was proposed wanted the solar project to be sited on their land, the landowner could not receive an exception to the DEQ rule. Thankfully, these specific rules were updated in 2024, but there are likely other circumstances like these where deference to other agency rules may create perverse outcomes."	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream. Regarding noise regulations, DEQ's Noise Control Program was terminated in 1991. DEQ rules governing noise remain in place for city, county or municipal government entities to utilize, so it really depends on the location of the facility and the local jurisdiction. For more information, please visit https://www.oregon.gov/deq/Residential/Pages/noise.aspx
76.	-	RNW	"developers have experienced situations where EFSC staff or consultants interpret conditions and requirements more broadly than written, including adding monitoring or other measures that are not explicitly required by the condition. This often results in additional back-and-forth between the developer and EFSC, creating avoidable schedule delays and increasing project costs without a clear regulatory basis."	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.

#	Scope #	ID	Comment	ODOE's Assessment
77.	-	RNW	"pre-construction compliance filings have become increasingly burdensome and costly due to extensive analyses conducted by consultants"	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.
78.	-	RNW	"the state's land use policies are not well suited to addressing some of the problems we now face. In particular, none of the 19 goals are geared towards addressing the climate crisis and building clean energy at the pace and scale required to rapidly reduce greenhouse gas emissions"	Other: Competing Land Use Priorities This statement is out of scope for this draft report, which is focused on projects that have already obtained siting approval.
79.	-	RNW	"Goal 3, as currently interpreted and implemented by agencies, is a major barrier to clean energy development. While wind facilities are an allowable use on agricultural land, solar is not. This means that functionally all solar facilities permitted through EFSC must obtain a Goal 3 exception."	Other: Competing Land Use Priorities This statement is out of scope for this draft report, which is focused on projects that have already obtained siting approval.
80.	-	RNW	"In conversations with our members, the definition of high value farmland ("HVF") consistently came up as a barrier to clean energy deployment. Definitions of farmland, agricultural land, HVF, and exclusive farm use ("EFU") are often inconsistent and overly broad, encapsulating land that has little value for agricultural production based on soils, access to irrigation, average rainfall, and other metrics. Because renewable energy is often sited on agricultural land, and often HVF, those definitions trigger exhaustive review and the need for Goal 3 exceptions, despite that land often being erroneously zoned. … This dynamic is particularly problematic in the context of American Viticultural Areas ("AVA") designations. The definitions of HVF relating to the Columbia Valley viticulture area include large swaths of land that are too arid to successfully grow grapes and have no access to irrigation."	Other: Competing Land Use Priorities This statement is out of scope for this draft report, which is focused on projects that have already obtained siting approval.

#	Scope #	ID	Comment	ODOE's Assessment
81.	-	RNW	"Storage projects face unique barriers as a newer, dynamic technology that differ from wind, solar, and other generation projects that have a longer track record."	Other: Storage faces unique barriers ODOE would be interested in more specific input as to the exact barriers that storage faces, particularly if they are not otherwise represented in the draft report. ODOE anticipates the barriers represented in the draft report of cost, limited staffing capacity, limited cross-jurisdictional coordination, and even limited grid capacity can all sometimes act as a greater barrier to storage than to wind or solar.
82.	-	RNW	"Interconnection remains a major barrier to clean energy deployment in Oregon and across the region"	Other: Interconnection ODOE disagrees that interconnection is itself a "barrier" for purposes of this report. Interconnection is one of many steps necessary in facility development.
83.	-	RNW	"Delays in EFSC permitting can directly impact a project's position in the interconnection queue and its competitiveness in procurement processes. Specifically, delays can cause projects to miss key interconnection milestones or cluster study entry points, forcing them into later study cycles with higher upgrade costs and longer backlogs. This misalignment between EFSC milestones and interconnection processes exposes clean energy projects to multi-year delays and increased costs."	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.
84.	-	Cobb	"As a Citizen, I support the improvements but want to be sure we will not include Nuclear Facilities … As a past City Councilor, I recommend adding the affirmation that Nuclear facilities will not be under consideration until there nuclear waste disposal is solved & safe."	Other: Land use siting This statement is out of scope for this draft report, which is focused on projects that have already obtained siting approval.

[lxxvii] "Cobb" is an interested person, S.C. Cobb.

#	Scope #	ID	Comment	ODOE's Assessment
85.	-	ENGO	"Evaluate causes of barriers to renewable energy alongside siting and permitting electricity infrastructure: ● We note that you are accepting comments on your draft report on barriers to renewable energy, but plan to develop a separate report on siting and permitting electricity infrastructure. Separating these two factors may lead to inaccurate assumptions and ineffective solutions. For example, other states have experienced long delays in permitting transmission projects, but analyses show that the permitting process was not the cause of delay. Project siting, community engagement, and transparency are often more significant factors."	Other: Land use siting This statement is out of scope for this draft report, which is focused on projects that have already obtained siting approval.
86.	23.	ENGO [lxxviii]	"Lack of sufficient capacity is one of the biggest barriers to the permitting process, and opponents of strong environmental protection frequently point to delays caused by inadequate staffing to attack essential safeguards for transparency, accountability, and environmental protections."	Barrier: Limited staffing capacity
87.	24.	ENGO	"while a variety of challenges face the build-out of new renewable energy capacity in Oregon, the cost and other bureaucratic obstacles associated with connecting new projects to the Bonneville Power Administration's (BPA) aging transmission infrastructure is often cited as a primary impediment."	Barrier: Cost Barrier: Limited grid capacity
88.	-	ENGO	"For new transmission corridors and expanding grid capacity, prioritize maintenance and upgrades for existing infrastructure wherever possible. There is a serious maintenance backlog that isn't always part of the state or federal policy conversation, and modernizing the existing grid can make a significant dent in the need for new capacity."	Other: Limitations on transmission This report is not examining barriers to transmission development. This input has been shared with other agency staff for consideration in workstreams focused on transmission.

[lxxviii] "ENGO" is the following group of joint commenters: Oregon Wild; Klamath-Siskiyou Wildlands Center; Bird Alliance of Oregon; Oregon Natural Desert Association; Western Environmental Law Center; Columbia Riverkeeper; Cascadia Wildlands; 350 Deschutes; 350 Eugene; Bark; Central Oregon LandWatch; Coast to Cascades Bird Alliance; Indivisible Bend; Kalmiopsis Audubon Society; MCAT, Mobilizing Climate Action Together; Mid-Willamette Bird Alliance; Salem Audubon Society; Sierra Club Oregon; Tualatin Riverkeepers; Umpqua Valley Audubon Society; Umpqua Watersheds; Western Watersheds Project; Willamette Riverkeeper; and Williams Community Forest Project. The document ODOE received used ENGO in the file name and ODOE adopts it here as a short-hand reference for the joint submission.

#	Scope #	ID	Comment	ODOE's Assessment
89.	25.	Joint [lxxix]	"We largely agree with ODOE's identification and analysis of barriers including cost, unexpected delays, limited cross-jurisdictional coordination, limited availability of equipment and supplies, limited staffing capacity, unmet workforce needs, and limited grid capacity."	Barrier: Cost Barrier: Unexpected delays Barrier: Limited cross-jurisdictional coordination Barrier: Limited availability of equipment and supplies Barrier: Limited staffing capacity Barrier: Unmet workforce needs Barrier: Limited grid capacity
90.	26.	Joint	Based on our analysis of EFSC permitting data, 48% of certificate holders have to make a change to a project after the site certificate has been issued. There are a number of reasons why this is the case ranging from project financing realities, to cost and technology changes that may have occurred throughout the development process, to larger headwinds in the clean energy industry …"	Barrier: Cost Barrier: Unexpected delays Barrier: Limited cross-jurisdictional coordination Barrier: Limited availability of equipment and supplies
91.	-	Joint	Based on our analysis of EFSC permitting data, 48% of certificate holders have to make a change to a project after the site certificate has been issued. There are a number of reasons why this is the case … the specificity that is required when submitting an application."	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.

[lxxix] "Joint" is the group that self-identified as "joint commenters": Renewable Northwest, Climate Solutions, The Nature Conservancy, Oregon Environmental Council, BlueGreen Alliance, NW Energy Coalition, Mobilizing Climate Action Together, Green Energy Institute at Lewis & Clark Law School, and Oregon Solar + Storage Industries Association.

#	Scope #	ID	Comment	ODOE's Assessment
92.	-	Joint	Based on our analysis of EFSC permitting data, 48% of certificate holders have to make a change to a project after the site certificate has been issued. … As seen in the figure below, the amendment process for wind and solar facilities takes an average of 119 days to complete, with the construction extension amendment process taking the longest at 192 days."	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.
93.	27.	Joint	"Interconnection queues in the Pacific Northwest, like much of the country, are backlogged, and projects face multiyear timelines and major costs before being grid-connected. The key barrier is limited grid capacity, as this report notes, meaning that the transmission system cannot handle new generators without first undergoing major upgrades. Essentially, we don't have enough transmission capacity to support new generation."	Barrier: Cost Barrier: Limited grid capacity
94.	28.	Joint	"The question is then, how can ODOE, OPUC, and DLCD facilitate interconnection, recognizing that the two agencies don't have much control over those processes. Most clean energy projects are either waiting in the Bonneville Power Administration's ("BPA") paused interconnection queue or are being processed through PacifiCorp or Portland General Electric's queues, which are FERC jurisdictional."	Barrier: Limited cross-jurisdictional coordination
95.	-	Joint	"Counties may be interpreting the underlying land use regulations for transmission inconsistently. Transmission is generally considered a "utility facility necessary for public service" under ORS 215.213(1)(c). However, sometimes the "use" category for transmission is not clearly defined within county code and transmission's applicability in different zones is often unclear."	Other: Limitations on transmission This report is not examining barriers to transmission development. This input has been shared with other agency staff for consideration in workstreams focused on transmission.

#	Scope #	ID	Comment	ODOE's Assessment
96.	-	Joint	"Projects experiencing construction delays must seek amendments to extend construction and completion deadlines. These take an average of 192 days. Lengthy amendment timelines can compound existing construction challenges by increasing project costs by tens to hundreds of thousands of dollars and creating additional regulatory uncertainty."	Other: Aspects specific to EFSC and/or the EFSC process This report is not examining the EFSC process or opportunities to improve the EFSC process. This input has been shared with other agency staff for consideration in the EFSC process workstream.
97.	29.	PGE[lxxx]	"The report should acknowledge that grid capacity challenges occur across the transmission, sub-transition and distribution systems."	Barrier: Limited grid capacity
98.	30.	PGE	"PGE generally agrees with the report's conclusion that transmission and interconnection challenges are among the most significant barriers facing resource development. … The underlying problem is … insufficient transmission capacity, …. the absence of regulatory mechanisms that support timely investment in long-lead infrastructure…"	Barrier: Cost Barrier: Limited grid capacity

[lxxx] "PGE" is Portland General Electric Company. ODOE received two sets of comments from PGE during the second public comment period.

#	Scope #	ID	Comment	ODOE's Assessment
99.	-	PGE	"PGE generally agrees with the report's conclusion that transmission and interconnection challenges are among the most significant barriers facing resource development. However, we believe the report understates the extent to which these challenges stem from structural issues that cannot be resolved through coordination alone. The underlying problem is not merely information gaps or process misalignment, but rather insufficient transmission capacity, outdated planning processes, the absence of regulatory mechanisms that support timely investment in long-lead infrastructure, and utility wildfire liability risk."	Other: Limitations on transmission This report is not examining barriers to transmission development. This input has been shared with other agency staff for consideration in workstreams focused on transmission. Other: Wildfire risk ODOE acknowledges wildfire risk can be a significant contributing factor to the issues of cost discussed in the report. However, wildfire risk is also an issue broader than the scope of this report. The Oregon Energy Strategy included a policy action on this issue (Electricity Action 2), which is now underway. For more information, please see OPUC Docket No. UM 2427, In the Matter of Public Utility Commission of Oregon, Study on Utility Wildfire Liability and Accountability.
100.	31.	PGE	"withdrawal decisions are often commercially sensitive and can be influenced by financing conditions, equipment costs, tax policy changes, permitting outcomes, and evolving market conditions. … Queue withdrawals are often symptoms of broader cost challenges, supply chain delays, and transmission constraints rather than the root cause of project delays"	Barrier: Cost Barrier: Limited cross-jurisdictional coordination Barrier: Limited availability of equipment and supplies Barrier: Limited grid capacity

#	Scope #	ID	Comment	ODOE's Assessment
101.	32.	PGE	"Regulatory Frameworks for Long-Lead Infrastructure: Many transmission projects and major generation facilities require large investment many years before they enter service. Existing cost recovery frameworks may not provide sufficient certainty to support timely development. Oregon should explore mechanisms that provide regulatory certainty for prudent long-term infrastructure investments while maintaining appropriate oversight and customer protections."	Barrier: Cost
102.	33.	PGE	"Federal and Regional Transmission Processes: Many of the barriers identified in the report originate outside state jurisdiction. Bonneville Power Administration transmission policies, regional planning processes, interconnection procedures, and federal permitting timelines significantly influence project development. Continued engagement with federal agencies and regional entities will be essential to improving outcomes."	Barrier: Limited cross-jurisdictional coordination
103.	-	PGE	"Utility Wildfire Liability Risk: The risk of catastrophic wildfire liability remains the single largest risk facing the electric sector in Oregon and directly impacts energy affordability and resource procurement. When risk goes up, utilities must raise more equity or borrow at higher interest rates, and those higher financing costs flow straight into customer bills. The financial, operational, and economic consequences of Oregon's current liability framework have become one of the most significant barriers to keeping utility rates low and building the grid Oregon needs for reliability, decarbonization, and economic development. All of this means customers are already paying more, investment in clean energy and serving business expansions is reduced, and Oregon's economy is exposed to significant risk. This is a statewide challenge affecting utilities large and small, requiring a statewide solution to protect customers, keep energy affordable, and build the grid Oregon's future depends on. Oregon needs to arrive at a balanced approach to address utility wildfire liability and at the same time maintain avenues for accountability and redress after a fire. Oregon's State Energy Strategy called for a balanced solution to this issue, and the OPUC has begun a third-party study of policy solutions."	Other: Wildfire risk ODOE acknowledges wildfire risk can be a significant contributing factor to the issues of cost discussed in the report. However, wildfire risk is also an issue broader than the scope of this report. The Oregon Energy Strategy included a policy action on this issue (Electricity Action 2), which is now underway. For more information, please see OPUC Docket No. UM 2427, In the Matter of Public Utility Commission of Oregon, Study on Utility Wildfire Liability and Accountability.

#	Scope #	ID	Comment	ODOE's Assessment
104.	34.	PGE	"PGE appreciates ODOE's efforts and supports continued collaboration to reduce barriers to clean energy deployment. We agree that interconnection and transmission constraints warrant attention, and that improved coordination can provide meaningful benefits."	Barrier: Limited cross-jurisdictional coordination Barrier: Limited grid capacity
105.	-	OFB	"OFB encourages ODOE to clarify in the final report that land use safeguards, agricultural impact standards, local review, public participation, and landowner protections are not barriers merely because they require developers to demonstrate that projects are appropriately sited. The final report should avoid framing agricultural land protection as an obstacle to deployment. Instead, it should recognize that preserving Oregon's agricultural land base is itself a statewide public interest."	Other: Land use siting This statement is out of scope for this draft report, which is focused on projects that have already obtained siting approval.
106.	-	OFB	"Battery storage may have a role in the energy system, but stand-alone storage facilities are industrial in character and may raise site-specific concerns related to fire safety, hazardous materials, emergency response, access, water impacts, and decommissioning. Creating broad new land use pathways for these facilities in EFU zones risks authorizing industrial development on resource land without adequate review."	Other: Land use siting This statement is out of scope for this draft report, which is focused on projects that have already obtained siting approval.
107.	-	OFB	"Transmission projects can affect producers for generations by altering farm layout, interfering with irrigation systems, affecting aerial application, restricting equipment movement, complicating field access, reducing productive acreage, and imposing long term operational burdens."	Other: Land use siting This statement is out of scope for this draft report, which is focused on non-transmission projects that have already obtained siting approval.

[lxxxi] "OFB" is Oregon Farm Bureau.

#	Scope #	ID	Comment	ODOE's Assessment
108.	-	OFB	"OFB urges ODOE to add or emphasize the following recommendations in the final report: 1. Recognize agricultural land protection as a core constraint and statewide public interest, not an optional consideration. The final report should state clearly that energy deployment should not be accelerated by weakening Goal 3, Goal 4, EFU protections, ORS 215.296 review, local participation, or landowner rights."	Other: Land use siting This statement is out of scope for this draft report, which is focused on projects that have already obtained siting approval.
109.	-	OFB	"Public participation is not a barrier; it is a necessary part of durable project review."	Other: Land use siting This statement is out of scope for this draft report, which is focused on projects that have already obtained siting approval.
110.	-	OFB	"Oregon's agricultural land base is finite. Once converted to industrial-scale energy development, it is rarely restored to equivalent productive capacity. Clean energy deployment and agricultural viability do not need to be in conflict, but avoiding that conflict requires communication, early engagement, and a clear commitment to protect Oregon's working lands."	Other: Competing land use priorities This statement is out of scope for this draft report, which is focused on projects that have already obtained siting approval.
111.	35.	WSPA [lxxxii]	"Oregon's energy transition is being shaped by multiple overlapping policies, programs, and regulatory initiatives. To maximize effectiveness and minimize unintended consequences, policymakers should ensure coordination across agencies, sectors, and jurisdictions. Without effective coordination, overlapping or conflicting policies may inadvertently harm affordability, reduce system reliability, or diminish the effectiveness of emissions reductions. Well-coordinated policies can help avoid duplication, improve regulatory efficiency, support investment certainty, and enable a broader range of technologies and fuels to contribute toward Oregon's energy and environmental objectives while maintaining affordability and reliability."	Barrier: Limited cross-jurisdictional coordination

[lxxxii] "WSPA" is Western States Petroleum Association.

Appendix D: Framing Guidance for ODOE on Incorporating the Equity & Justice Framework

Overview

As part of the Oregon Energy Strategy, the Equity and Justice Framework was informed by the Environmental Justice and Equity Policy Working Group and is designed to be used in the development and implementation of energy policy by policy makers, agencies, and other implementors. The Oregon Department of Energy is committed to using the Equity and Justice Framework when addressing the actions of the Oregon Energy Strategy to reduce inequities and increase equitable and just outcomes in our work.

To incorporate the framework into ODOE's work for the Report on Reducing Barriers to Clean Energy Deployment, ODOE staff developed framing guidance to inform the agency's decision-making for both the process and outcome of this report. That framing guidance is provided in this appendix. ODOE staff intends to revisit this framing guidance after finalizing the report to inform future implementation efforts.

Application of the Equity & Justice Framework

The framework provides five steps to apply when developing and implementing energy policies. This section walks through each step and how ODOE staff are applying the framework for the report's development and recommendations.[lxxxiii]

Step 1. Determine the universal goal for the issue being addressed and who may benefit, be harmed, or be burdened when taking action.

- Issue: Limited electricity supply, and more specifically barriers to in-state development of new proposed wind, solar and battery storage facilities with a nameplate capacity over 20 megawatts that have received siting approval from the Energy Facility Siting Council (via an approved site certificate) or from a county but are not yet built.
- Goal: reliable, affordable, and clean electricity, specifically through in-state development
- Who may benefit: Oregonians generally, including those with limited or less reliable electricity supply today; private developers; workers hired for development projects; counties and their constituents who receive increased tax revenue; potentially others.
- Who may be harmed or burdened: those with interests in the area where development occurs that are negatively affected by development; potentially others.

[lxxxiii] The report highlights recommended policy actions from the Oregon Energy Strategy as well as additional recommendations. This framework focuses specifically on the additional recommendations.

Step 2. Use the four pillars of energy justice to provide direction to achieving just and equitable outcomes in energy policies.

Procedural pillar: All groups who stand to benefit or are burdened are provided space to participate and their input should be taken seriously throughout the process.

- For this report's development, ODOE should pursue broadly available public participation opportunities. Those who may benefit or burden are difficult to narrowly identify, thus broad participation is needed. No group's input should be disregarded.
- This report's recommendations should preserve and not unduly reduce public participation opportunities in related processes, including processes relating to planning, siting, permitting, and constructing energy facilities.

Recognition pillar: No one group should dominate a process. The process addresses demographic, socio-economic, and geographic variables, disproportionate burdens, and lived experiences of environmental justice communities.

- ODOE should pursue input from multiple groups. If one group's participation is hindering the process or ability of another group to participate, ODOE should take corrective action.
- Potential participants may face difficulties in participating. ODOE should try to design the process to reduce these difficulties and provide reasonable accommodations as needed.

Distributive pillar: Understanding of indirect and community benefits (health, jobs, environment, etc.) and intentional distribution of benefits to overburdened communities.

- In-state clean energy development can provide various benefits. ODOE should try to design policy recommendations to facilitate the distribution of any benefits broadly, particularly to communities already overburdened and communities newly burdened by energy development.

Restorative pillar: Recognizing and reflecting on past harms and injustices caused by the energy system and actively working to prevent future harms and maximizing future benefits.

- Existing energy infrastructure in Oregon has harmed individuals and communities, even while providing benefits to others. New infrastructure may cause harm. This report's recommendations should aim to minimize future harms and maximize future benefits.

Step 3. Use the approaches in the framework table to develop targeted actions (targeted universalism) to meet the universal goal while keeping the four pillars in mind.

Actions for Report Development

The following table identifies the approach and targeted actions performed or that were planned to be performed in the development of this report. The table does not indicate where performance could be improved. Please note targeted actions are listed only once even when they may advance multiple approaches.

Approach	Targeted Actions for Report Development
1. Provide Equitable Access to Decision-Making Processes	General • **DONE** – Produce a webpage for this report and email alerts for public input that use plain language. • **DONE** – Provide a point of contact for any questions about the report or process • **DONE** – Update project webpage as needed • **DONE** – Ensure all materials posted by ODOE satisfy the agency's accessibility requirements
1. Provide Equitable Access to Decision-Making Processes	For first public comment period: • **DONE, 2/18/2026-3/20/2026** – Provide at least 30 days for public comments • **DONE** – Solicit input from a broad range of participants via email outreach • **DONE** – Solicit input through a comment portal with the functionality to automatically translate any questions being asked • **DONE** – Publish presentation materials for any listening session(s) before the session begins • **DONE, 3/3/2026 1-2pm** – Hold at least one listening session to invite oral comments • **DONE, 3/3/2026 5-6pm** – Hold at least one listening session outside of typical working hours • **DONE** – Conclude each listening session with a customer service survey • **DONE** – Publish a recording of all listening sessions where comments were received • **DONE** – Provide receipt of comment submissions when requested • **DONE** – Provide receipt of comment submissions to all commenters • **DONE** – Provide reasonable accommodations for commenters when requested
1. Provide Equitable Access to Decision-Making Processes	After first comment period: • **DONE** – Share comments from first public comment period on project webpage • **DONE** – Update project webpage as needed • **DONE** – Review all comments received • **DONE** – Evaluate and internally discuss outreach needs for group(s) not clearly represented in comments received; and pursue outreach where feasible • **DONE** – Consider comments received, where commenters are based and focus their work, and how that compares to data layers in the Climate Economic Justice Screening Tool, or new state environmental justice mapping tool if available, to consider where gaps may exist in ODOE's outreach and evaluate options to fill gaps

Approach	Targeted Actions for Report Development
1. Provide Equitable Access to Decision-Making Processes	For second comment period: • **DONE** – Publish draft report that endeavors to fairly acknowledge and recognize input received to date • **DONE** – Provide copy of draft report's executive summary on project webpage with the functionality to automatically translate the text • **DONE, 6/1/2026-7/2/2026** – Provide at least 30 days for public comments • **DONE** – Solicit input from a broad range of participants via email outreach • **DONE** – Solicit input through a comment portal with the functionality to automatically translate the questions being asked • **DONE** – Publish presentation materials for any listening session(s) before the session begins • **DONE** – Hold at least one listening session to invite oral comments • **DONE** – Hold at least one listening session outside of typical working hours • **DONE** – Conclude each listening session with a customer service survey • **DONE** – Publish a recording of all listening sessions where comments were received • **DONE** – Share recommendations in a public meeting at the Energy Facility Siting Council, consistent with the directive in Executive Order 25-29 • **DONE** – Provide notice of the draft report and open comment opportunity in other public meeting(s) where feasible and appropriate • **DONE** – Provide receipt of comment submissions to all commenters • **DONE** – Provide reasonable accommodations for commenters when requested
1. Provide Equitable Access to Decision-Making Processes	After second comment period: • **DONE** - Share comments from second public comment period on project webpage • **DONE** – Evaluate and internally discuss outreach needs for group(s) not clearly represented in comments received; consider options for future projects • **DONE** – Evaluate and internally discuss outreach needs for group(s) not clearly represented in comments received; and identify potential improvements for future processes • **DONE** – Consider comments received, any self-identifying commenters in environmental justice communities, where other commenters are based and focus their work, and how that compares to data layers in available mapping tools to consider where gaps may exist in ODOE's outreach and evaluate options to fill gaps

Approach	Targeted Actions for Report Development
1. Provide Equitable Access to Decision-Making Processes	For final report: • **DONE** – Publish final report that endeavors to fairly acknowledge and recognize all input received • **DONE** – Provide copy of final report's executive summary on project webpage with the functionality to automatically translate the text • **Pending** – Hold at least one public webinar on the final report to broaden outreach on the final recommendations and the insights gained; conduct targeted outreach to agency contacts in Environmental Justice communities on opportunity to join webinar or review recording if they are unable to attend live
2. Ensure Equitable Access to Infrastructure Development Processes	No additional actions for this approach for report development identified.
3. Invest In Long Term Incentive Programs for Environmental Justice Communities	No additional actions for this approach for report development identified.
4. Promote Holistic Workforce Development in Environmental Justice Communities	No additional actions for this approach for report development identified.
5. Develop Partnerships and Resources in Environmental Justice Communities	Please see many related actions under Approach 1 above. Internal meetings between individual project lead and some or all members of the Strategic Engagement team and Strategic Engagement Analyst, as follows: • **DONE**[lxxxiv] - Hold at least one monthly meeting on outreach and engagement needs • **DONE**[lxxxv] - Hold at least one monthly meeting focused on implementing the Equity & Justice Framework

[lxxxiv] As of September 10, 2026, internal meetings between project lead and SET member(s) to discuss general outreach and engagement needs included meetings held on 12/18/2025, 1/16/2026, 2/13/2026, 2/27/2026, 3/30/2026, 4/13/2026, 4/20/2026, 4/27/2026, 5/4/2026, 5/19/2026, 5/26/2026, 6/2/2026, 6/16/2026, 6/23/2026, 6/30/2026, 7/7/2026, 7/14/2026, 7/21/2026, 8/4/2026, 8/11/2026, 8/18/2026, 8/25/2026, and 9/1/2026. This list does not include all instances where this topic may have been discussed.

[lxxxv] As of September 10, 2026, internal meetings between project lead and SET member(s) to discuss implementing the Equity & Justice Framework included meetings held on 1/5/2026, 2/2/2026, 3/6/2026, 3/27/2026, 4/7/2026, 4/23/2026, 5/7/2026, 5/26/2026, 6/4/2026, 6/15/2026, 7/21/2026, 7/30/2026, 8/13/2026, 8/27/2026, and 9/10/2026. This list does not include all instances where this topic may have been discussed.

Approach	Targeted Actions for Report Development
5. Develop Partnerships and Resources in Environmental Justice Communities	External outreach: • **DONE, 6/17/2026** – Solicit input on this appendix from agency contacts in Environmental Justice communities, including through email and holding space for further discussions • **N/a** – In any meetings specifically on this report with utilities or local governments, inquire about opportunities to collaborate to best support communities and customers
6. Consider The Effects of Energy Policies on Natural and Working Lands, Cultural Resources, and the Broader Environment	For draft report • **DONE** – Provide information about proposed wind, solar and battery storage facilities with a nameplate capacity over 20 megawatts that have received siting approval from the Energy Facility Siting Council (via an approved site certificate) or from a county but are not yet built (this report's primary focus), to inform consideration of existing burdens and benefits • **DONE** – Consider this framework in drafting recommendations
6. Consider The Effects of Energy Policies on Natural and Working Lands, Cultural Resources, and the Broader Environment	For final report • **DONE** – Seek to fill any identified information gaps, or to acknowledge where information is not available, on subjects within the scope of this report • **DONE** – Consider this framework in finalizing recommendations • **DONE** – Identify metrics that can be collected before, during, and/or after implementation of each recommendation to demonstrate success and understand gaps in the policy implementation (see Step 4 below)

Actions for Report Recommendations

While the prior table focuses on report development, the following tables identify the approach(es) and targeted action(s) relevant to this report's six main recommendations. Each recommendation has its own table below. These tables are intended to be illustrative, not restrictive: additional actions could be identified and added. Please note targeted actions are listed only once even when they may advance multiple approaches.

Approach	**Targeted Action(s) for Report Recommendation:** Consider providing financial incentives to new clean energy facilities that provide significant localized benefits to Oregon communities.
1. Provide Equitable Access to Decision-Making Processes	• No specific actions identified at this time; continue to evaluate potential targeted actions over time
2. Ensure Equitable Access to Infrastructure Development Processes	• Include consideration of access concerns and opportunities for small-scale energy deployment • Include consideration of multiple potential benefits from localized investment, including on resilience, health, and affordability

Approach	**Targeted Action(s) for Report Recommendation:** Consider providing financial incentives to new clean energy facilities that provide significant localized benefits to Oregon communities.
3. Invest In Long Term Incentive Programs for Environmental Justice Communities	• Consider need and opportunity for incentive programs to supply environmental justice communities' access to clean energy and varied benefits
4. Promote Holistic Workforce Development in Environmental Justice Communities	• No additional actions identified at this time
5. Develop Partnerships and Resources in Environmental Justice Communities	• No additional actions identified at this time
6. Consider The Effects of Energy Policies on Natural and Working Lands, Cultural Resources, and the Broader Environment	• No additional actions identified at this time

Approach	**Targeted Action(s) for Report Recommendation:** Support the expansion and upgrading of critical transmission infrastructure
1. Provide Equitable Access to Decision-Making Processes	• Post relevant updates to ODOE's Energy Strategy implementation website for Oregon Energy Strategy (Electricity Action 3) • Continue to evaluate potential targeted actions over time
2. Ensure Equitable Access to Infrastructure Development Processes	• No additional actions identified at this time
3. Invest In Long Term Incentive Programs for Environmental Justice Communities	• No additional actions identified at this time
4. Promote Holistic Workforce Development in Environmental Justice Communities	• No additional actions identified at this time
5. Develop Partnerships and Resources in Environmental Justice Communities	• No additional actions identified at this time
6. Consider The Effects of Energy Policies on Natural and Working Lands, Cultural Resources, and the Broader Environment	• No additional actions identified at this time

Approach	**Targeted Action(s) for Report Recommendation:** Monitor for, and defend against, market-disrupting federal policy changes
1. Provide Equitable Access to Decision-Making Processes	• Post relevant updates to ODOE's Energy Strategy implementation website for Oregon Energy Strategy (Cross-Cutting Action 8) • Continue to evaluate potential targeted actions over time
2. Ensure Equitable Access to Infrastructure Development Processes	• No additional actions identified at this time
3. Invest In Long Term Incentive Programs for Environmental Justice Communities	• No additional actions identified at this time
4. Promote Holistic Workforce Development in Environmental Justice Communities	• No additional actions identified at this time
5. Develop Partnerships and Resources in Environmental Justice Communities	• No additional actions identified at this time
6. Consider The Effects of Energy Policies on Natural and Working Lands, Cultural Resources, and the Broader Environment	• No additional actions identified at this time

Approach	**Targeted Action(s) for Report Recommendation:** Prioritize actions that support Oregon's existing and future clean energy workers
1. Provide Equitable Access to Decision-Making Processes	• Post relevant updates to ODOE's Energy Strategy implementation website for Oregon Energy Strategy (Cross-Cutting Action 7) • Continue to evaluate potential targeted actions over time
2. Ensure Equitable Access to Infrastructure Development Processes	• No additional actions identified at this time
3. Invest In Long Term Incentive Programs for Environmental Justice Communities	• No additional actions identified at this time
4. Promote Holistic Workforce Development in Environmental Justice Communities	• No additional actions identified at this time

Approach	**Targeted Action(s) for Report Recommendation:** Prioritize actions that support Oregon's existing and future clean energy workers
5. Develop Partnerships and Resources in Environmental Justice Communities	• No additional actions identified at this time
6. Consider The Effects of Energy Policies on Natural and Working Lands, Cultural Resources, and the Broader Environment	• No additional actions identified at this time

Approach	**Targeted Action(s) for Report Recommendation:** Increase state agency capacity as needed to meet permitting needs and provide statewide technical assistance
1. Provide Equitable Access to Decision-Making Processes	• Post relevant updates to ODOE's Energy Strategy implementation website for Oregon Energy Strategy (Cross-Cutting Action 11) • Continue to hold public meetings on ODOE's budget and expected agency needs (like the one held July 15, 2026) and share information on ODOE's Budget webpage • Continue to evaluate potential targeted actions over time
2. Ensure Equitable Access to Infrastructure Development Processes	• No additional actions identified at this time
3. Invest In Long Term Incentive Programs for Environmental Justice Communities	• No additional actions identified at this time
4. Promote Holistic Workforce Development in Environmental Justice Communities	• No additional actions identified at this time
5. Develop Partnerships and Resources in Environmental Justice Communities	• No additional actions identified at this time
6. Consider The Effects of Energy Policies on Natural and Working Lands, Cultural Resources, and the Broader Environment	• No additional actions identified at this time

Approach	**Targeted Action(s) for Report Recommendation:** Convene recurring forum discussions on cross-jurisdictional topics, such as opportunities to align siting, interconnection, and procurement processes, to support further conversation and actions on these topics
1. Provide Equitable Access to Decision-Making Processes	• Evaluate opportunities to provide meaningful involvement in forum planning and implementation • Explore opportunities to support participation, including compensation for travel and time • Consider access needs in choosing forum locations and logistics
2. Ensure Equitable Access to Infrastructure Development Processes	• Consider public participation needs and equitable access concerns in considering any changes to policies or programs
3. Invest In Long Term Incentive Programs for Environmental Justice Communities	• No additional actions identified at this time
4. Promote Holistic Workforce Development in Environmental Justice Communities	• Consider potential relevance of each forum to workforce needs and local priorities
5. Develop Partnerships and Resources in Environmental Justice Communities	• Draft similar framing guidance document for future analysis and engagement process, and evaluate and update over time as needed • Conduct ongoing outreach to build awareness of opportunity and identify areas of interest and priority • Prioritize opportunities to foster collaboration
6. Consider The Effects of Energy Policies on Natural and Working Lands, Cultural Resources, and the Broader Environment	• Prioritize recommendations that balance energy needs with the needs of ecosystems and cultural policies

Step 4. Identify metrics that can be collected before, during, and/or after implementation to demonstrate success and understand gaps in the policy implementation.

Metrics for report development

Below are metrics that ODOE considered for report development. These metrics for report development aim to build on the targeted actions for report development noted above in Step 3. Like in the above table, a metric is listed only once even when it may apply to multiple approaches.

Approach	Metric for Report Development Process	Status (as of report publication)
1	# of targeted actions developed for this approach	41
1	# of targeted actions completed, in process, or pending for this approach	Completed: 40 In Process: 0 Pending: 1
1	% of website materials satisfying accessibility requirements	100%
1	% of public comment periods lasting at least 30 days	100%
1	% of questions for public comment provided on website with the functionality to automatically translate any questions being asked	100%
1	% of project materials professionally translated by a human being into one or more languages	0%
1	# of email alerts to broad audiences soliciting input during first comment period	2
1	% of public meetings during first comment period where materials were shared before the meeting began	100%
1	# of public listening sessions held during first comment period	2
1	Percentage of meetings hosted with interpretation and/or translation services	0%
1	# of public listening sessions held outside typical working hours during first comment period	1
1	% of reasonable requests for accommodations received and provided to requestors during first comment period	n/a
1	# of community-based organizations that participated in the first comment period by providing feedback	Inconclusive
1	% of feedback provided by environmental justice participants in first comment period incorporated into recommendations	Inconclusive
1	% of recommendations in draft report provided on project webpage with the functionality to automatically translate the text	100%
1	# of email alerts to broad audiences soliciting input during second comment period	3
1	% of public meetings during second comment period where materials were shared before the meeting began	100%
1	# of public listening sessions held during second comment period	1
1	# of public listening sessions held outside typical working hours during second comment period	1 (partially outside typical working hours)
1	% of reasonable requests for accommodations received and provided to requestors during second comment period	n/a
1	# of community-based organizations that participated in the second comment period by providing feedback	Inconclusive

Approach	Metric for Report Development Process	Status (as of report publication)
1	% of feedback provided by environmental justice participants in second comment period incorporated into recommendations	Metric inconclusive; all feedback was considered
1	% of recommendations in final report provided on project webpage with the functionality to automatically translate the text	Website update pending
5	# of targeted actions listed above for this approach	4
5	# of targeted actions completed, in process, pending, or no longer applicable for this approach	Completed: 3 In Process: 0 Pending: 0 n/a: 1
5	# of months where at least one internal meeting between individual project lead and some or all members of the Strategic Engagement team and Strategic Engagement Analyst was held to discuss general outreach and engagement needs	10 (December 2025, January 2026, February 2026, March 2026, April 2026, May 2026, June 2026, July 2026, August 2026, September 2026) (as of September 10, 2026)
5	# of months where at least one internal meeting between individual project lead and some or all members of the Strategic Engagement team and Strategic Engagement Analyst was held specifically to discuss implementation of the Equity & Justice Framework	9 (January 2026, February 2026, March 2026, April 2026, May 2026, June 2026, July 2026, August 2026, September 2026) (as of September 10, 2026)
5	# of meetings held specifically to highlight opportunity to solicit input on this Appendix	1
5	% of suggestions to this Appendix received and implemented during second comment period	n/a
6	# of targeted actions listed above for this approach	5
6	# of targeted actions completed, in process, or pending for this approach	Completed: 5 In Process: 0 Pending: 0
6	% of data gaps identified in public comments and filled or acknowledged in final report	Inconclusive
6	% of primary recommendations where potential metrics were identified and provided in the final report to support implementation (see Step 4 below)	100%

Potential metrics to consider for report recommendations

While the above table focuses on metrics for report development, the following table focuses on metrics for the report's six main recommendations. These metrics may be collected before the implementation of a recommendation, could be collected during implementation, or could inform review after implementation.

Recommendation	Potential Metrics	Status
Consider providing financial incentives to new clean energy facilities that provide significant localized benefits to Oregon communities	• # incentives created • # projects receiving incentives	• Forthcoming
Support the expansion and upgrading of critical transmission infrastructure	• # of updates shared publicly on implementation of Oregon Energy Strategy Electricity Action 3 • # of recommendations published • # of recommendations from transmission framework under implementation	• Webpage established for latest updates to Oregon Energy Strategy actions • 2 relevant updates posted on Oregon Energy Strategy Electricity Action 3 (as of September 10, 2026)
Monitor for, and defend against, market-disrupting federal policy changes	• # of updates shared publicly	• Webpage established for latest updates to Oregon Energy Strategy actions • 1 relevant update posted on Oregon Energy Strategy Cross-Cutting Action 8 (as of September 10, 2026)
Prioritize actions that support Oregon's existing and future clean energy workers.	• # of updates shared publicly on forthcoming Workforce Needs Assessment • # of recommendations published from forthcoming Workforce Needs Assessment • # of recommendations from Workforce Needs Assessment under implementation	• Specific project webpage posted for forthcoming Workforce Needs Assessment (Update to Oregon Energy Strategy Cross-Cutting Action 7)

Recommendation	Potential Metrics	Status
Increase state agency capacity as needed to meet permitting needs and provide statewide technical assistance	• # of updates shared publicly • # of public meetings held on ODOE's budget and agency needs	• Webpage established for latest updates to Oregon Energy Strategy actions • 1 relevant update posted on Oregon Energy Strategy Cross-Cutting Action 11 (as of September 10, 2026)
Convene recurring forum discussions on cross-jurisdictional topics, such as opportunities to align siting, interconnection, and procurement processes, to support further conversation and actions on these topics	• # of forums held • # of targeted actions developed for first forum • % of targeted actions timely implemented for second forum • Gap analysis undertaken for future forums (yes/no) • % of past forums with a published gap analysis	• Forthcoming

Step 5. Review the outcomes through the lens of the determined universal goal, targeted strategies, and metrics. Complete an analysis to understand if there are gaps and if a new goal or strategy is needed to meet the metrics.

This review is ongoing; ODOE is undertaking a gaps analysis to identify needs and opportunities for future activities. ODOE aims to complete the analysis by year end and post findings on the project webpage for transparency.

Initial reflections and items flagged for further review:

- It would be helpful to have additional information about commenters, including whether they identify as a community-based organization or as members of an environmental justice community. This was not asked in the first comment period. The question was added in the second comment period, as a voluntary option for commenters to self-identify.
- ODOE received inquiries on when the comments received would be published. Consider the feasibility of publishing a target date on the project webpage.
- Some commenters notified ODOE that it was unclear if their comments, including attachments, were received. Additional outreach was undertaken to confirm receipt. This is something under review for a more durable solution.
- Sharing a compilation of comments required ODOE to undertake additional steps to ensure the document satisfied ODOE's website accessibility obligations. This is something under review for a more durable solution.

The gaps analysis will serve as one way for ODOE to reflect on its implementation of the Equity & Justice Framework and seek to fulfill the spirit as well as the letter of its commitment to incorporate the Equity & Justice Framework into the agency's work to implement the Oregon Energy Strategy.

Appendix E: Interconnection Processes in Oregon

The Oregon Energy Strategy recognized interconnection delays are a significant barrier to development.[lxxxvi] The Oregon Department of Energy and Oregon Public Utility Commission collaborated on this appendix to summarize additional information relevant to the Report on Reducing Barriers to Clean Energy Deployment. The Report does not recommend policymakers take any specific action in 2026 to change interconnection processes in Oregon; reforms are already being implemented and more time is needed to evaluate their success and identify further opportunities. Instead, this appendix is intended to support further conversations and shared understanding on the often highly technical topic of interconnection.

This appendix is organized as follows:

- Section 1 provides an overview of generator interconnection processes in Oregon and addresses high-level questions;
- Section 2 summarizes the policy reforms adopted in recent years;
- Section 3 summarizes the status of interconnection reforms; and
- Section 4 summarizes areas of potential reform that have already been identified and are under discussion at OPUC for state-jurisdictional generators.

Major takeaways include:

- The interconnection process is important to maintaining reliability but can discourage development necessary to support resource adequacy.
- Interconnection processes have significantly changed in recent years and reforms are still in the process of implementation.

Understanding the challenges being faced and the reforms underway could help inform policy decisions on other aspects of generator development and on the electricity sector writ large. As noted in the main report, ODOE recommends convening an annual or semi-annual forum to discuss and evaluate opportunities to improve alignment across different processes, including permitting, interconnection, and construction. ODOE recommends the first annual forum focus on interconnection processes for generating facilities over 20 MW and explore what new or changed aspects of the interconnection process, as reformed, most intersect with other processes. This document is meant to be an introductory resource only, to help participants understand the challenges of generator interconnection and the significance of the reforms adopted to interconnection processes in recent years.

Section I. Overview

This section introduces the topic of large generator interconnection processes. It is organized in a question-and-answer format.

[lxxxvi] Oregon Energy Strategy at page 112.

What is a generator interconnection process?

No generating facility[lxxxvii] can supply electricity to Oregonians until after the facility is properly approved and engineered to connect to the grid, or "interconnected." A facility developer must apply for interconnection service; the developer is then called the "interconnection customer" and the application is called the "interconnection request." The list of active interconnection requests is typically called the "interconnection queue."

A generator interconnection process describes the rules and requirements to achieve interconnection. A typical process includes engineering studies, construction work, and contractual agreements. Engineers must evaluate the potential effects and risks of that generating facility's proposed operations on the continued availability and reliability of electricity service. The addition of a new facility at any given point on the grid may risk overloading existing components of the grid, such as a transformer, a distribution line, or even a substation. When an engineering study identifies that interconnecting a proposed facility presents a risk to grid components, the facility will generally not be allowed to interconnect without the interconnection customer first paying for the components at risk to be replaced or upgraded.

Importantly, completing an interconnection process only ensures a facility's electricity can safely and reliably go onto the grid. For a generating facility's electricity to move over a transmission system, a request for transmission service must be made. Like the interconnection process, the transmission service process can require engineering studies, construction work, and contractual agreements to ensure the continued safety and reliability of the grid.[lxxxviii] This appendix does not focus on the transmission service process except to acknowledge where the interconnection process and transmission service process may intersect.

Today, interconnection processes are generally standardized, meaning the process is publicly posted and intended to be uniformly applied across all generating facilities that submit similar requests for interconnection service. These processes have evolved and changed over time, but otherwise facilities that are eligible for and apply to the same process should expect similar treatment.

How many generator interconnection processes are there in Oregon?

Every electric utility in Oregon has at least one interconnection process, as does the Bonneville Power Administration, a federal power marketer. Interconnection procedures fall under several jurisdictions nationwide. For example, Oregon's investor-owned utilities – PacifiCorp dba Pacific Power, Portland General Electric Company, and Idaho Power Company – have different interconnection processes regulated by the federal government and the state government. The Federal Energy Regulatory Commission establishes the requirements for the interconnection of generators within FERC's jurisdiction, while the Oregon Public Utility Commission establishes the requirements for the interconnection of generators within its jurisdiction. These requirements are typically described in each interconnection process and related documentation approved by FERC or OPUC. The interconnection of most generation facilities over 20 MW (the focus of the Report on Reducing Barriers to Clean Energy) is

[lxxxvii] This includes facilities of all sizes, including rooftop solar and behind-the-meter battery storage. For interconnection purposes, "generation" includes a battery storage facility that may discharge electricity onto the grid.
[lxxxviii] E.g., OPUC Order No. 23-005 at 8, https://apps.puc.state.or.us/orders/2023ords/23-005.pdf

subject to FERC's jurisdiction. OPUC only has jurisdiction over interconnection for a subset of co-generation facilities and a subset of renewable energy facilities 80 megawatts (MW) or smaller.

Both FERC and OPUC set separate requirements for large versus small generation facilities. A "large" generating facility for purposes of interconnection is typically defined as one with a generating capacity greater than 20 megawatts (MW).[lxxxix] It is common for states to adopt FERC's pro forma small generator procedures for state-jurisdictional procedures, but the OPUC developed its own small generator procedures. OPUC has been working on an ongoing basis to refine its small generator interconnection procedures to address issues and barriers facing small generators.

This appendix focuses on BPA, PAC, PGE, and IPCO's main interconnection processes for generation facilities over 20 MW, also formally called their Large Generator Interconnection Procedures (LGIPs).[xc] These four entities are referred to in this document as Interconnection Providers.[xci] ODOE gathered publicly available data on these processes in January 2026.[xcii] The data provides a snapshot view of interconnection in Oregon, considering the status in January 2026 of interconnection requests submitted from the start of data publication around 2000 until the Interconnection Provider's most recent update before the data was gathered. For the most up-to-date and accurate data, please see the applicable Interconnection Provider's website.

What interconnection process do most large generating facilities in Oregon use?

A facility developer must apply for interconnection service to the operator of the specific grid equipment where the facility will connect. Large generating facilities typically interconnect to a transmission system, in contrast to smaller facilities, like rooftop solar, that typically interconnect to a local distribution system.

Most large generator interconnection requests in Oregon are submitted to BPA, which has historically interconnected most large generation in Oregon. The remainder tend to go to PAC or PGE, where they are typically subject to FERC's processes, not OPUC's.

[lxxxix] E.g., FERC, Generator Interconnection, https://www.ferc.gov/electric-transmission/generator-interconnection. While nameplate capacity is often used to consider the size of different facilities, interconnection processes typically focus on the amount of interconnection capacity requested, which may be more or less than a facility's nameplate capacity. Through this document, capacity is used to mean the requested interconnection service (specifically a facility's maximum summer MW capacity), regardless of a facility's actual nameplate.

[xc] This appendix does not address other processes, such as for surplus or provisional interconnection service.

[xci] Formally, these entities may be called "Transmission Providers," but ODOE uses the more informal term Interconnection Provider here to avoid confusion about interconnection service and transmission service. As noted above, completing the interconnection process does not convey transmission service.

[xcii] The data shared here comes from the four Interconnection Providers' OASIS websites: https://www.oasis.oati.com/BPAT/, https://www.oasis.oati.com/ipco/, https://www.oasis.oati.com/PGE/, and https://www.oasis.oati.com/ppw/index.html. FERC mandated the creation of OASIS websites, which stand for "Open Access Same-Time Information System." *See* FERC, Open Access Same-Time Information System, https://www.ferc.gov/OASIS. One caveat is that the dataset for BPA includes surplus and repowered requests, which requests are not necessarily included in the datasets used for PAC, PGE, or IPCO. (This is because BPA's data is consolidated in one file while other entities provide the data in multiple separate files.)

From 2000-2025, over half (52.0 percent) of all large generator interconnection requests have been submitted to BPA, while roughly one-third (31.7 percent) have been submitted to PAC.[xciii] Further, the requests to BPA are larger, constituting roughly two thirds (65.7 percent) of the capacity of all large generator interconnection requests, while the number submitted to PAC are roughly 21.1 percent of the capacity. See Tables 1 and 2 below for more data. These statistics are consistent with what one would expect, considering BPA and PAC collectively own and operate the vast majority of high-voltage transmission lines in the state.[xciv]

Table 1. Large Generator Interconnection Requests in Oregon by Interconnection Provider, 2000-2025

Interconnection Provider	#	%
BPA	458	52.0%
IPCO	35	4.0%
PAC	279	31.7%
PGE	108	12.3%
Total	880	100%

Table 2. Capacity of Large Generator Interconnection Requests in Oregon by Interconnection Provider, 2000-2025

Interconnection Provider	MW	%
BPA	152,597.6	65.7%
IPCO	7,491.2	3.2%
PAC	48,950.9	21.1%
PGE	23,109.9	10.0%
Total	232,149.6	100%

When considering only those requests that have achieved commercial operation, BPA's share is even greater. BPA has historically interconnected more than half of Oregon's large generators by number; BPA has interconnected more than three-quarters of the capacity of Oregon's large generators. Tables 3 and 4 provide more data on operational requests. PAC has interconnected the most other facilities, but PGE has interconnected more total capacity than PAC.

[xciii] The high-level statistics provided here may overestimate PacifiCorp's queue data. As noted later on, this data includes interconnection requests with a status of "deactivated," which may mean the request was duplicated in a recent reform process (duplicated in a cluster queue and deactivated in the serial queue), was removed for lack of progress, or was withdrawn by the applicant. To be clear, the other datasets also include information about requests that were withdrawn.

[xciv] LBNL also reported that BPA and PacifiCorp (which includes both PAC and Rocky Mountain Power) have the two largest interconnection queues of all providers in the non-ISO West, with Arizona Public Service as a close third. See LBNL, Western non-ISO, Generation, Storage, and Hybrid Capacity in Interconnection Queues, https://emp.lbl.gov/generation-storage-and-hybrid-capacity (last accessed May 22, 2026).

Table 3. Operational Large Generator Interconnection Requests in Oregon by Interconnection Provider, 2000-2025

Interconnection Provider	#	%
BPA	30	63.8%
IPCO	2	4.3%
PAC	10	21.3%
PGE	5	10.6%
Total	47	100.0%

Table 4. Aggregate Capacity of Operational Large Generator Interconnection Requests in Oregon by Interconnection Provider, 2000-2025

Interconnection Provider	MW	%
BPA	5,293.0	77.9%
IPCO	136.7	2.0%
PAC	495.0	7.3%
PGE	869.0	12.8%
Total	6,793.7	100.0%

Another significant pattern is that, of requests not to BPA, most large generator interconnection requests are FERC-jurisdictional, not state-jurisdictional (84.4 percent by number, 95.3 percent by capacity). These statistics are consistent with what one would expect, considering OPUC only has jurisdiction over interconnection for a subset of co-generation facilities and a subset of renewable energy facilities 80 MW or smaller. By contrast, the average large interconnection request from this dataset has a size of 263.8 MW. See Tables 5 and 6 for more data on this.

Table 5. Large Generator Interconnection Requests in Oregon to PAC, PGE, or IPCO by Regulatory Jurisdiction, 2000-2025

Interconnection Provider	#	%
FERC	356	84.4%
OPUC	54	12.8%
Unclear	12	2.8%
Total	422	100%

Table 6. Capacity of Large Generator Interconnection Requests in Oregon to PAC, PGE, or IPCO by Regulatory Jurisdiction, 2000-2025

Interconnection Provider	MW	%
FERC	75,849.9	95.3%
OPUC	2,970.1	3.7%
Unclear	732.0	0.9%
Total	79,552.0	100%

How many facilities that start the interconnection process are ultimately built?

Relatively few. Historically, most requests for interconnection service have been withdrawn, in Oregon and nationwide. According to LBNL's nationwide analysis of interconnection requests submitted from 2000-2020, 75 percent of the requests were withdrawn, 1 percent are suspended, 10 percent are active, and only 13 percent are completed (meaning the facility is now operational).[xcv] Historically, a single facility might submit one or more requests to the same Interconnection Provider, so the size of the interconnection queue is not indicative of how much may be built, and a withdrawn request is not necessarily indicative of a facility not being built.

Is interconnection considered a significant barrier to renewable energy development in Oregon?

Limited grid capacity is a significant barrier and negatively affects the interconnection process, as discussed in the main body of the report. However, ODOE does not view the interconnection process itself as a "barrier" to development for purposes of the Report on Reducing Barriers to Clean Energy Deployment. The interconnection process is critical to maintaining the safety and reliability of the electric grid.

However, the rigorous evaluation undertaken in the interconnection process can reveal that a facility's development is not economical considering its likely impacts on the grid and necessary investments to mitigate those impacts. This is discussed further in the main body of the report under the barrier Cost.

Further, there is a tension between ensuring near-term reliability and long-term resource adequacy: the interconnection process can signal to a facility developer that development is not economical, even though development may be highly valuable to support long-term resource adequacy.[xcvi] This can also be considered as a tension in cost allocation: to mitigate near-term cost pressures on customers, developers front most costs in the interconnection process, but if those costs are too high to support development of any new facilities, the result may be a lack of resource adequacy and therefore a risk of greater costs being imposed on customers in the future.

Does Oregon have a lot of generating facilities currently seeking interconnection?

Yes, according to Lawrence Berkeley National Laboratory's nationwide analysis, as of the end of 2025, Oregon had the fourth-largest interconnection queue of all 50 states, with 108.2 gigawatts of proposed facilities actively seeking interconnection.[xcvii] For comparison, California ranks second with 189.3 GW, Washington ranks tenth with 55.1 GW, and Idaho ranks 31st with 16.5 GW. Among U.S. counties, three Oregon counties rank in the top 20: Sherman County ranks seventh, with 17.5 GW; Crook County ranks 13th, with 13.2 GW; and Klamath County ranks nineteenth, with 10.9 GW. In Oregon, as in other states, most proposed facilities in the queue use solar, wind, and/or battery storage technologies.

[xcv] LBNL, *Transmission Interconnection Queue Durations and Outcomes* (last accessed May 21, 2026), https://emp.lbl.gov/transmission-interconnection-queue-durations-and-outcomes

[xcvi] For more on the concept of resource adequacy, *see generally,* ODOE, Resource Adequacy, https://www.oregon.gov/energy/Data-and-Reports/Documents/2020-BER-Energy-101.pdf#page=70.

[xcvii] LBNL, *Maps of active interconnection requests by region, state, and county* (last accessed May 21, 2026), https://emp.lbl.gov/maps-projects-region-state-and-county.

Nationwide, LBNL has observed a surge in the total number of interconnection requests made each year, beginning in 2013 and accelerating in 2020. The above numbers are cumulative, reflecting both new requests and outstanding requests from prior years. LBNL observed a slower pace nationwide in 2025, due to interconnection policy reforms, though they note that "market conditions, project financing, transmission constraints, and permitting barriers" may also contribute to fewer requests being made.[xcviii]

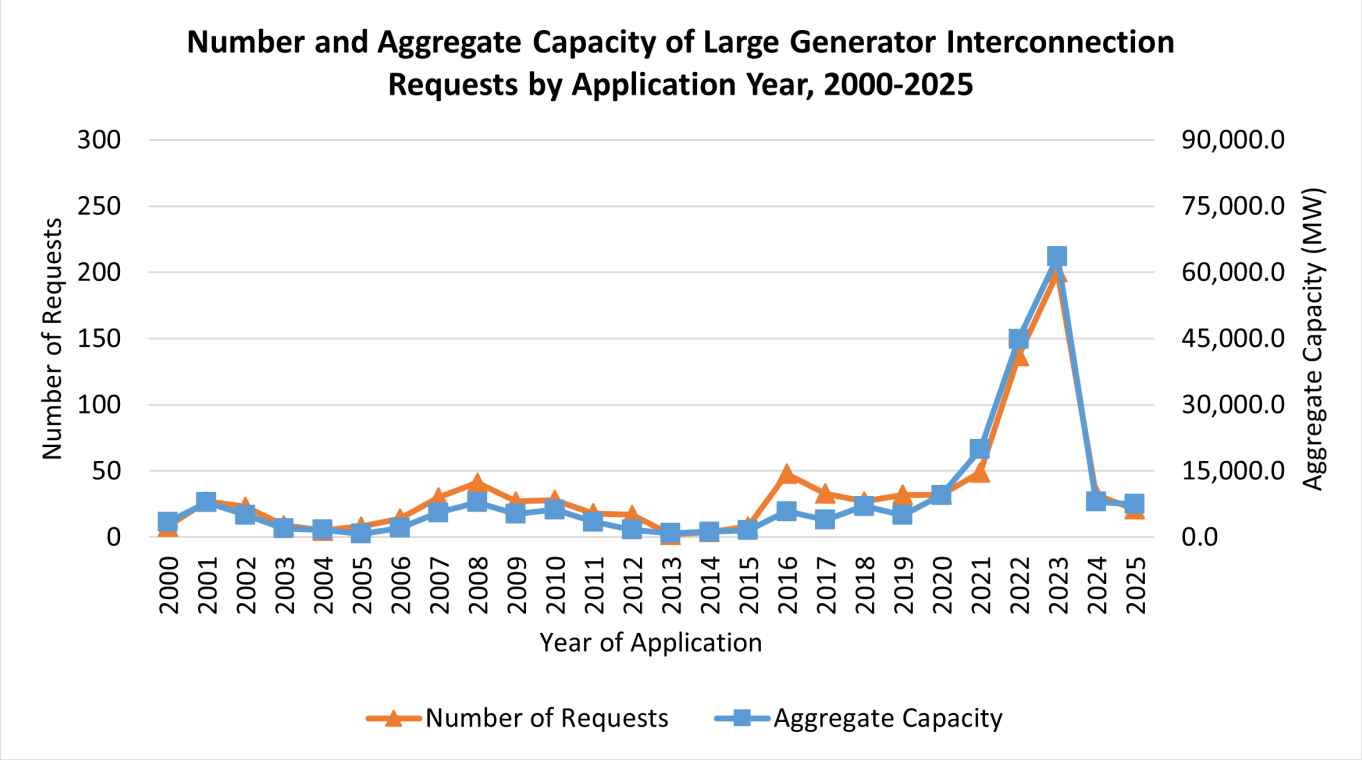
As discussed below, some interconnection policy reforms are still in the process of being implemented in Oregon. These reforms are intended to address the significant backlog of interconnection requests that has grown in recent years, but more changes will likely be needed in this evolving area.

Is the high number of interconnection requests in Oregon normal or a new development?

The total number and aggregate capacity of large generator interconnection requests in Oregon in recent years are unprecedented. The following chart shows, from 2000 to 2025, the large generator interconnection requests submitted to four Interconnection Providers in Oregon. The orange line with triangle markers shows the total number of requests each year, and the blue line with square markers shows the aggregate capacity of those requests for each year. As illustrated in these charts, the aggregate capacity of requests has increased significantly since 2019, while the number of submissions spiked in 2022 and 2023.

[xcviii] LBNL, Queued Up: 2025 Edition, Characteristics of Power Plants Seeking Transmission Interconnection As of the End of 2024 (Dec. 2025) at 4, 11. For 2025 data, see LBNL, *Generation, Storage, and Hybrid Capacity in Interconnection Queues*, https://emp.lbl.gov/generation-storage-and-hybrid-capacity.

Chart 1. Number and Aggregate Capacity of Large Generator Interconnection Requests in Oregon by Application Year, 2000-2025



Due to policy reforms discussed in the next section, the number and aggregate capacity of new requests in 2024 and 2025 is comparatively low. The recent reductions are temporary. As discussed in Section 3, providers stopped accepting new applications for portions of late 2023 through 2025 as part of their reforms to focus on the backlog of existing requests. Therefore, the extreme level of reduction should not be assumed as likely to persist. This overall pattern of recent high levels and a reduction in recent years is generally consistent with nationwide trends described in the main body of the report.

What is the backlog of prior requests?

While the number of new requests has declined in 2024 and 2025, many requests are still in process. As noted earlier, LBNL estimates that Oregon has 108.2 gigawatts of proposed facilities actively seeking interconnection.[xcix] That number may reflect nameplate capacity. The data collected for this appendix estimates there are 224 large generator interconnection requests totaling 75,566.5 MW (or 75.6 GW) of proposed injection capacity that are actively seeking interconnection (this excludes small facilities under 20 MW). This number includes facilities at the start of the process seeking their first study results as well as facilities nearing commercial operation where construction for the interconnection is underway. Most of these requests, by number and especially by capacity, were submitted to BPA or PAC. See Tables 7 and 8 for more data on active requests by provider. Additionally, nearly all of these 224 active requests are not subject to OPUC's jurisdiction and therefore the requirements for their interconnection are not

[xcix] LBNL, *Maps of active interconnection requests by region, state, and county* (last accessed May 21, 2026), https://emp.lbl.gov/maps-projects-region-state-and-county.

determined by state policy. Only ten of the 224 large generator interconnection requests are OPUC-jurisdictional, with a total of 582.99 MW in capacity.

Table 7. Active Large Generator Interconnection Requests in Oregon by Interconnection Provider, 2000-2025

Interconnection Provider	#	%
BPA	146	65.2%
IPCO	3	1.3%
PAC	51	22.8%
PGE	24	10.7%
Total	224	100.0%

Table 8. Capacity of Active Large Generator Interconnection Requests in Oregon by Interconnection Provider, 2000-2025

Interconnection Provider	MW	%
BPA	57,638.1	76.3%
IPCO	1,025.0	1.4%
PAC	11,770.4	15.6%
PGE	5,133.0	6.8%
Total	75,556.5	100.0%

How long will it take to process the active large generator interconnection requests?

The exact timeline for each generator is uncertain. In general, completing the interconnection process typically takes years. According to LBNL'S 2025 annual report on interconnection processes across the country, "The typical project built in 2024 took 55 months from the interconnection request to commercial operation, compared to 36 months in 2015 and 22 months in 2008. These trends raise concerns for meeting growing electricity demand and resource adequacy needs."[c] LBNL acknowledges interconnection processes are not the only factor contributing to these trends.

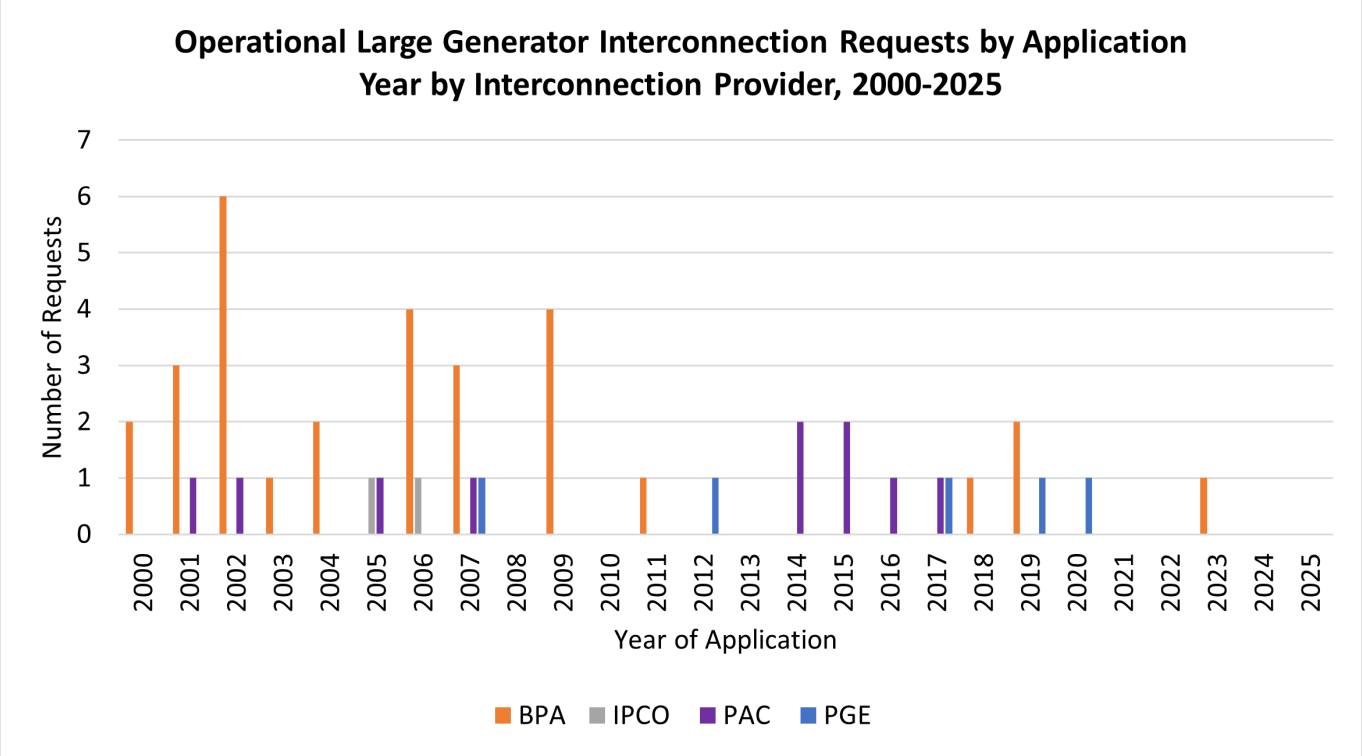
LBNL also publishes summary data for the Western United States (excluding CAISO): the typical project built in 2024 took 66.6 months, compared to 30.5 months in 2015 and a mere 10 months in 2008.[ci]

The chart on the next page shows operational large generator interconnection requests in Oregon by application year from 2000-2025. Notably, only a single interconnection request submitted in 2021 or later have yet concluded the interconnection process and achieved commercial operation. (This may have changed since this data was gathered in January 2026). The one exception, interconnection request number G0917, is a repowered wind facility.

[c] LBNL, *Queued Up: 2025 Edition, Characteristics of Power Plants Seeking Transmission Interconnection*, slide 4, https://emp.lbl.gov/sites/default/files/2025-12/Queued%20Up%202025%20Edition%20-%2012.15.2025.pdf

[ci] LBNL, *Duration from Interconnection Request to Commercial Operations Date (median number of months): West*, https://emp.lbl.gov/transmission-interconnection-queue-durations-and-outcomes (last accessed June 4, 2026).

Chart 2. Operational Large Generator Interconnection Requests in Oregon by Application Year by Interconnection Provider, 2000-2025



Understanding the significant increase in requests and that a proposed large generation facility should expect to need multiple years to complete the interconnection process may be helpful context when reviewing the next section on recent interconnection policy reforms.

Section 2. Recent Interconnection Policy Reforms

A Brief History of Large Generator Interconnection Policy Reforms

In response to the rapid increase in interconnection requests and significant delays described in the main body of the report, interconnection processes have significantly changed in recent years, and reforms are still in the process of implementation. This section provides a brief chronology of reforms; it concludes with a summary table of activity from 2019-2026. The following sections summarize some of the major policy changes.

Until recently, Interconnection Providers in Oregon generally adhered to the interconnection processes established in 2003 by FERC Order No. 2003, a landmark interconnection decision that established the first standardized process for large generator interconnections: the first FERC LGIP.[cii] In 2010, OPUC adopted a version of the FERC LGIP for large generators subject to state jurisdiction: the first OPUC

[cii] FERC Order 2003, available at https://www.ferc.gov/sites/default/files/2020-06/order-2003.pdf

LGIP.[ciii] BPA, though generally not subject to FERC or OPUC's jurisdiction, chose to follow interconnection processes similar to the FERC LGIP.

For a variety of reasons, the FERC LGIP became subject to significant criticism, not only in Oregon but nationwide. FERC ultimately issued a new landmark decision in 2023, but reform discussions began years earlier in Oregon. In June 2019, PAC initiated a public engagement process to consider interconnection reforms.[civ] PAC indicated the unprecedented number of interconnection requests PAC had received was affecting its ability to process interconnection requests.[cv] PAC filed proposed changes to its LGIP at FERC in January 2020, which FERC approved with some modifications in May 2020.[cvi] PAC then filed proposed changes at OPUC in June 2020, which OPUC approved with some modifications in August 2020.[cvii] At that time, only a small number of vertically integrated utilities like PAC across the country had adopted such reforms.

Meanwhile, in early 2019, OPUC also launched a public engagement process to investigate whether changes were warranted to all state-jurisdictional interconnection processes.[cviii] This process had a targeted scope; a broader investigation was subsequently launched in June 2020.[cix] OPUC approved significant changes to all three LGIPs in early 2024 and continues to explore potential changes to state-jurisdictional interconnection processes, particularly for small facilities under 20 MW in size[cx]

In July 2021, FERC launched a process to consider potential reforms to generator interconnection processes.[cxi] June 2022, FERC recognized that, nationwide, the growing backlog of interconnection requests and lengthening timelines for new generation to interconnect "hinder the timely development of new generation and thereby stifle competition in the wholesale electric markets."[cxii] FERC launched a formal rulemaking to modify generator interconnection processes nationwide.[cxiii] In July 2023, FERC issued Order No. 2023, which required all interconnection providers subject to FERC's jurisdiction to

[ciii] OPUC Docket No. UM 1401, Order No. 10-132 (April 7, 2010), available at https://apps.puc.state.or.us/orders/2010ords/10-132.pdf

[civ] The notice and other documents can be found on PAC's OASIS webpage (https://www.oasis.oati.com/ppw/index.html) under the folder titled "Interconnection Queue Reform 2019."

[cv] PAC, Notice of Queue Reform Stakeholder Process at 1 (June 25, 2019), https://www.oasis.oati.com/woa/docs/PPW/PPWdocs/Notice_of_Queue_Reform_Stakeholder_Process_6.25.2019.pdf.

[cvi] The proceeding occurred in FERC Docket No. ER20-924 (https://elibrary.ferc.gov/eLibrary/docketsheet?docket_number=er20-924). The order can be cited as *PacifiCorp*, 171 FERC ¶ 61,112 (May 12, 2020)

[cvii] The proceeding occurred in OPUC Docket No. UM 2108.

[cviii] See OPUC Docket No. UM 2000, Order No. 19-051 (Feb. 19, 2019), Staff Report at 4 ("Comments provided by multiple developers reflect the QF community is having significant problems in securing interconnection agreements with utilities. Possibly the most significant problem is the high cost of interconnection."). The comments can be viewed at https://oregonpuc.granicus.com/GeneratedAgendaViewer.php?view_id=1&clip_id=370 under agenda item 4. This order launched OPUC Docket No. UM 2032, *In the Matter of PUBLIC UTILITY COMMISSION OF OREGON, Investigation into the Treatment of Network Upgrade Costs for Qualifying Facilities*.

[cix] See OPUC Docket No. UM 2111, *In The Matter of PUBLIC UTILITY COMMISSION OF OREGON, Investigation Into Interconnection Process And Policies*, Order No. 20-211 (July 6, 2020).

[cx] See OPUC Docket No. UM 2032, Order No. 24-036 (Feb. 8, 2024) and subsequent compliance filings.

[cxi] FERC Docket No. RM21-17, Advance notice of proposed rulemaking (July 15, 2021).

[cxii] FERC Docket No. RM22-14, Notice of Proposed Rulemaking ¶22 (June 16, 2022); *see also id.* ¶¶ 18-36. FERC's notice discussed the contributing factors at length, including limited grid capacity and increasing costs for network upgrades, as discussed in the main body of the report.

[cxiii] The proceeding occurred in FERC Docket No. RM22-14.

implement significant reforms.[cxiv] Oregon's investor-owned utilities – including PAC, whose prior reforms did not include all the changes in FERC's new Order No. 2023 – did so and filed corresponding reforms with OPUC in the fall of 2024.[cxv] FERC and OPUC approved new processes for all three of Oregon's investor-owned utilities in 2024 and 2025.[cxvi]

Although not subject to FERC Order No. 2023, BPA also initiated a public engagement process to consider potential reforms beginning in early 2023. BPA formally adopted reforms in January 2024[cxvii] with further modifications in March and July 2025.[cxviii]

Some recently adopted reforms are still in the process of being implemented. Further, OPUC has several open proceedings related to interconnection. Ongoing implementation efforts and open proceedings are discussed in Section 4.

The following table summarizes the above events and when and where they occurred. Please note this table is not comprehensive of all discussions in Oregon related to interconnection, particularly for smaller facilities beyond the scope of the Report on Reducing Barriers to Clean Energy Deployment.

Table 9. Timeline of Recent Reforms, 2019-2026

Time	Venue	Item
Early 2019	OPUC	OPUC opened new investigation, docket no. UM 2032, into specific interconnection policies related to transmission upgrades
June 2019	n/a	PAC initiated public engagement process to consider reforms to PAC's FERC LGIP and OPUC LGIP
January 2020	FERC	PAC filed proposed changes to FERC LGIP
May 2020	FERC	FERC approved new FERC LGIP for PAC
June 2020	OPUC	PAC filed proposed changes to OPUC LGIP
July 2020	OPUC	OPUC opened broader investigation, docket no. UM 2111, into interconnection reforms
August 2020	OPUC	OPUC approved new OPUC LGIP for PAC
July 2021	FERC	FERC launched nationwide process to consider reforms to all FERC LGIPs
April 2022	n/a	PGE initiated public engagement process to consider reforms to PGE's FERC LGIP and OPUC LGIP

[cxiv] In March 2024, FERC issued Order No. 2023-A, which addressed several issues raised in requests for rehearing or for clarification of Order No. 2023. *See* FERC Docket No. RM22-14.

[cxv] Portland General Electric filed with OPUC in Docket No. UM 2346. Idaho Power filed with OPUC in Docket No. UM 2349. PacifiCorp filed with OPUC in Docket No. UM 2351.
While no filing was made beyond seeking compliance with FERC Order No. 2023, PGE had initiated a public engagement process to explore interconnection reforms in April 2022, before FERC's proceeding began, and that process persisted through June 2023. The meeting materials and public comments can be reviewed on PGE's OASIS website.

[cxvi] See OPUC Docket No. UM 2346, Order No. 25-005 (Jan. 8, 2025) (approving new OPUC LGIP for PGE, with discussion of changes FERC approved in December 2024); OPUC Docket No. UM 2349, Order No. 25-006 (Jan. 8, 2025) (approving new OPUC LGIP for Idaho Power, with discussion of changes FERC approved in March 2024); and OPUC Docket No. UM 2351, Order No. 25-355 (Sept. 4, 2025) (approving new OPUC LGIP for PAC, with discussion of FERC's review); and FERC Docket No. ER24-2017, Order (Sept. 11, 2025) (approving final pieces of new FERC LGIP for PAC).

[cxvii] BPA, Docket No. TC-25, Administrator's Final Record of Decision (Jan. 2024).

[cxviii] BPA, Docket No. TC-26, Administrator's Final Record of Decision (Mar. 2025); BPA, Docket No. BP-26, Administrator's Final Record of Decision (July 2025).

Time	Venue	Item
July 2022	FERC	FERC launched formal rulemaking to reform all FERC LGIPs
Early 2023	BPA	BPA initiated public engagement process to consider reforms
July 2023	FERC	FERC issued Order No. 2023, mandating changes to all FERC LGIPs
August 2023	OPUC	OPUC opened formal rulemaking to implement interconnection reforms from Phase 1 of UM 2111
January 2024	BPA	BPA adopted reforms to its LGIP pursuant to its public engagement process
February 2024	OPUC	OPUC ordered changes to all OPUC LGIPs in OPUC Docket No. UM 2032
March 2024	FERC	FERC issued Order No. 2023-A, clarifying aspects of Order No. 2023
September 2024	FERC	FERC approved new FERC LGIP for IPCO
December 2024	FERC	FERC approved new FERC LGIP for PGE
January 2025	OPUC	OPUC approved new OPUC LGIPs for IPCO and PGE
March 2025	BPA	BPA adopted further reforms to its LGIP pursuant to its public engagement process
July 2025	BPA	BPA finalized certain reforms to its LGIP consistent with BPA's rate-setting obligations
September 2025	OPUC	OPUC approved new OPUC LGIP for PAC
September 2025	FERC	FERC approved new FERC LGIP for PAC
Status in 2026	*All*	*Implementation of adopted reforms is ongoing.*
Status in 2026	*OPUC*	*While adopted reforms are being implemented, OPUC is continuing to examine additional potential opportunities.*

Summary of Three Major Reforms

This section highlights three of the major reforms adopted by some or all Interconnection Providers in Oregon in recent years:

1. The transition from individual to clustered studies
2. The adoption of readiness requirements and withdrawal penalties
3. Reforms to encourage operational solutions in lieu of physical updates

The following sections aim to explain the mechanics of these three reforms, not to comprehensively summarize these reforms in practice or the often contentious policy discussions around their design and implementation. This section does not summarize all reforms that have been adopted to interconnection processes for large or small generators.

The Transition from Individual to Clustered Studies

One of the studies undertaken in the interconnection process is called a system impact study. One significant reform for all four Interconnection Providers has been the change from conducting system impact studies on an individual basis for each large generator interconnection request to conducting these studies for a group of interconnection requests (often called a "cluster study"). FERC and OPUC

approved this change for PAC in 2020; this was also a hallmark of FERC's Order No. 2023 in the same year and of BPA's reforms in 2024.

With a cluster study approach, an Interconnection Provider may conduct one or more cluster studies for each group of interconnection requests. Requests received during the same time period are typically grouped together into a single cluster; groups may be separated into different studies, typically to reflect different geographical segments of the Interconnection Provider's system, or different cluster areas.

Because of the increased complexity, a cluster study is expected to take longer to complete than an individual study would have required. However, this change significantly reduces the number of studies that an Interconnection Provider must undertake.

This change also means that the costs of equipment or other upgrades needed to accommodate the group's interconnection are typically split up and divided across the group, rather than each upgrade being assigned to the first individual interconnection request that showed a need for that equipment. The prior approach often resulted in a high cost estimate for the first request in the interconnection queue, which frequently would withdraw. The next request would then be told it needed to pay for the same upgrade, and it would frequently withdraw. These cascading restudies were due to expensive upgrades being assigned to a single generator. The switch to cluster studies aimed to reduce this issue.

To implement the transition from individual studies to cluster studies, Interconnection Providers established transition processes. These typically allowed individual requests that were advanced in the process (such as those who had received study results and had signed contracts agreeing to the necessary construction work and applicable costs) to continue under the prior serial queue approach. Interconnection requests that were not sufficiently advanced in the process were generally allowed to proceed only if they opted into the cluster study; otherwise, they could withdraw their request. The most recent interconnection request submissions – received after a publicly noticed deadline for participation in the cluster study – were often prohibited from participation in the cluster study at all, as a way to limit the size of the transitional cluster studies to a (hopefully) manageable level.

The Adoption of Readiness Requirements and Withdrawal Penalties

Another significant reform to interconnection process has been the adoption of readiness requirements and withdrawal penalties. These requirements ultimately aim to reduce the total number of requests being studied to those most ready to interconnect (and commit capital), and the requirements often increase for more advanced stages of the interconnection process. FERC and OPUC approved these changes for PAC in 2020; these were also hallmarks of FERC's Order No. 2023 in 2023 and of BPA's reforms in 2025.

Readiness requirements are a screening tool for entry into the interconnection process or for entry into later stages of the process. At a high-level, these requirements are intended to be achievable only for requests that are commercially viable and ready to interconnect (and commit capital). As a result, the application to submit an interconnection request has become more difficult to complete and get approved since these requirements were added. This change has been broadly expected to result in fewer requests needing to be processed. The application requirements are supposed to represent typical requirements for a facility to be developed. For example, all developers need to establish site control to build a facility: the term "site control" literally means that a developer has sufficient control over a site to be allowed to build on it. Demonstrating site control typically requires proof of land

ownership or of a valid lease to use and build upon the land, as well as proof that the land is of a sufficient size for the proposed facility's construction and operation.

Withdrawal penalties are fees charged to interconnection customers who choose to withdraw. The fee is typically higher the later an applicant is in the process. The fee is intended to be representative of the withdrawal's negative effects on other interconnection customers. The penalty discourages interconnection customers from advancing in the interconnection process if they expect to withdraw. The penalty's collection can provide partial redress for other interconnection customers negatively affected by a withdrawal by partially reducing their costs for studies or construction work.

Reforms to Encourage Operational Solutions In Lieu of Physical Equipment Changes

For state-jurisdictional generator interconnection requests, the OPUC has sought to facilitate interconnection for facilities willing to prioritize operational solutions that mitigate the need for physical equipment upgrades. Absent these operational solutions, state-jurisdictional interconnection customers today are generally responsible for paying the costs of network upgrades. As discussed in the main report, those costs can be a significant barrier to a facility's development.

In January 2023, OPUC adopted a new policy to require Oregon's three investor-owned utilities to allow state-jurisdictional interconnection customers to interconnect without first paying for the construction of network upgrades if the customer commits via a negotiated contract to allow its output to be curtailed so as to eliminate the need for the network upgrades.[cxix] Customer commitment is critical to enabling this reduced cost interconnection, as utilities' ability to curtail generators is restricted by federal and state law, specifically the Public Utility Regulatory Policies Act. To better examine the potential implementation of this change in policy, including necessary changes to form contracts and regulated contractual pricing, OPUC further examined this and other issues for state-jurisdictional customers (often called qualifying facilities or QFs under PURPA) 10 megawatts and smaller.[cxx]

The discussion for small facilities is illustrative of challenges for large facilities as well. A significant challenge to implementation of the OPUC's 2023 decision has been the timing of the contractual arrangements. QFs seek power purchase agreements with utilities, which specify the pricing the QF will be paid for its power. Separately, QFs seek interconnection agreements with utilities, which specify the necessary interconnection upgrades and costs that a QF must pay to be interconnected. Although both contracts are with a utility, these contracts are with different parts of the utility, which must minimize their interaction with one another pursuant to federal law. The contracts therefore cannot be combined but must remain two separate legal agreements. The utility would prefer the interconnection agreement be signed first, because that commits the QF to allow curtailment. This is significant as PURPA otherwise provides QFs a unilateral right to a non-curtailable PPA. The QF would prefer the power purchase agreement be signed first, because it needs to know what payments it will receive before deciding whether it can afford the interconnection costs. The tension between these competing needs presents a

[cxix] *In the Matter of PUBLIC UTILITY COMMISSION OF OREGON, Investigation into the Treatment of Network Upgrade Costs for Qualifying Facilities*, Docket No. UM 2032, Order No. 23-005 at 2, (Jan. 20, 2023).

[cxx] E.g., *In the Matter of Rulemaking to Address Procedures, Terms, and Conditions Associated with Qualifying Facilities (QF) Standard Contracts*, Docket No. AR 631; *In the Matter of PORTLAND GENERAL ELECTRIC COMPANY; PACIFICORP dba PACIFIC POWER; AND IDAHO POWER COMPANY, Joint Utilities Application for Approval of Proposed Schedules and Standard Power Purchase Agreement for Qualifying Facilities up to 10 MW*, Docket No. UM 2299.

continuing challenge for implementation of the OPUC's policy. Given the implementation difficulties, OPUC continues to explore this and other potential interconnection reforms, as noted in Section 4.

Section 3. The Current State of Interconnection Reforms

Overview

Interconnection reforms in Oregon and much of the U.S. are still in the process of implementation. Below is a brief summary of the status of interconnection reforms for BPA, PAC, PGE, and IPCO.

As a reminder, based on data gathered in January 2026, no interconnection requests submitted in 2021 or later have concluded the interconnection process and achieved commercial operation. Further, Table 7 above showed BPA had 146 active requests, IPCO had 3 active requests, PAC had 51 active requests, and PGE had 24 active requests. Active requests include facilities at the start of the process seeking their first study results as well as facilities nearing commercial operation where construction for the interconnection is underway.

As described by Lawrence Berkeley National Laboratory, "FERC Order 2023 and various other reforms are being implemented. These are important measures to reduce interconnection bottlenecks and enhance grid system reliability, but it is too early to measure and assess their full impact."[cxxi] LBNL reports that facilities that achieved commercial operation in 2025 typically submitted their interconnection request 62.4 months earlier; that is the median average nationwide. The western region, excluding CAISO, had the lowest median number of any U.S. region at 46.9 months.[cxxii]

Status of BPA's Ongoing Reforms

As noted in Section 2, BPA formally adopted reforms in January 2024[cxxiii] with further modifications in March 2025.[cxxiv] These reforms resulted from settlement agreements that were unchallenged by any participant.

Pursuant to these reforms, BPA began a transition process that is still ongoing. BPA paused the processing of new requests to focus on the existing backlog. Only requests made before November 22, 2023, could potentially be processed under BPA's prior processes or as part of BPA's first interconnection cluster study, known as the Transition Cluster.[cxxv] This pause is likely a major driver of the statewide reduction in interconnection requests in 2024. BPA is currently accepting requests for the

[cxxi] LBNL, *Queued Up: Characteristics of Power Plants Seeking Transmission Interconnection*, https://emp.lbl.gov/queues (providing the quoted text as a key highlight of their analysis of nationwide data through the end of 2024).
[cxxii] LBNL, *Transmission Interconnection Queue Durations and Outcomes*, https://emp.lbl.gov/transmission-interconnection-queue-durations-and-outcomes (last accessed June 9, 2026).
[cxxiii] BPA, Docket No. TC-25, Administrator's Final Record of Decision (Jan. 2024).
[cxxiv] BPA, Docket No. TC-26, Administrator's Final Record of Decision (Mar. 2025); BPA, Docket No. BP-26, Administrator's Final Record of Decision (July 2025).
[cxxv] BPA, Open Access Transmission Tariff, Attachment R, Section 1.1: "After the Transition Close Date [November 22, 2023], Transmission Provider shall only accept new Interconnection Requests within a Cluster Request Window specified in Section 4 of the LGIP. Consistent with Section 4 of the LGIP, new Interconnection Requests submitted outside of the Cluster Request Window are not valid and will not receive consideration." Per Section 1.3, "Transition Close Date shall be November 22, 2023."

future cluster study that will follow the Transition Cluster in early 2025, but this study has not yet begun.[cxxvi]

BPA produced the first study results for the Transition Cluster in January 2026. BPA's Transition Cluster included 167 eligible requests totaling 61.1 GW of capacity across BPA's entire system.[cxxvii] BPA divided these requests into eleven clusters, each of which received their own Phase One Transition Cluster Study Report.[cxxviii] Four reports – for Cluster Areas Lower Columbia 1, South Oregon 1, South Oregon 2, and Western Oregon – are entirely comprised of requests in Oregon. Two reports – for Cluster Areas Lower Columbia 2 and Tri-Cities/Umatilla 1 – include requests in Oregon and at least one other state.

After receiving their study results in January 2026, interconnection customers had 90 days to review the study results and submit required documentation to proceed to the next stage. BPA reported that 138 of the 167 applicants sought to advance, or about 83 percent.[cxxix] BPA reviewed the validity of data submissions and evaluated the need for a cluster re-study. On July 15, 2026, BPA provided the following as an informal status update:

> Following the completion of the review and validation of the redemonstrations submitted during the Customer Review Period, BPA has determined that a Cluster Re-Study of the Phase One Cluster Study is not required under the terms of BPA's Open Access Transmission Tariff (OATT), Attachment L, Section 6.7(b). This determination is based on the evaluation of project withdrawals and the resulting impacts on the Cluster Study.
>
> Phase One Cluster Study reports for each Cluster Area will now be revised to capture customer elections from the Customer Review Period. BPA will issue updated Phase One Cluster Study reports on Sept. 11, 2026. Once the updated Cluster Study Reports are issued, BPA will send the formal notification that a Cluster Re-Study is not needed via Tech Forum announcement and a posting on OASIS and will begin tendering the Phase Two Cluster Study Agreements.[cxxx]

At the time of report publication, it appears likely that BPA's implementation of reforms to resolve the backlog of requests now embodied in the Transition Cluster will persist into at least late 2027 or early 2028, not including time required for actual construction of any interconnection upgrades. As discussed in the barrier of cost in the main report, contract negotiations for a project's future power sales typically requires that a developer have progressed far enough in the interconnection process to have some certainty that connecting to the grid will be feasible, *not* that a facility be fully constructed or operational.

As discussed in the earlier section on specific reforms, BPA adopted withdrawal charges as part of its interconnection reforms. Interconnection customers in the Transition Cluster could face a withdrawal charge after they execute an Interconnection Facilities Study Agreement. One would expect a greater

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[cxxvi] BPA, Post-Transition Cluster Study Process, https://www.bpa.gov/energy-and-services/transmission/interconnection/large-generator/post-transition-cluster-study-process. Only a small amount of generation in Oregon applied to BPA in 2025.

[cxxvii] BPA, OASIS, note Posted 07/23/2025: Phase 1 Cluster Study Update.

[cxxviii] These reports are available at https://www.bpa.gov/energy-and-services/transmission/interconnection/large-generator/transition-process.

[cxxix] BPA, OASIS, note Posted 06/02/2026: Delay in Large Generator Interconnection Phase One Cluster Re-Study Decision.

[cxxx] BPA, Tech Forum email, Informal Status Update: Generator Interconnection Phase One Cluster Study (July 15, 2026) (on file with ODOE).

portion of active interconnection customers to withdraw after the Phase Two Cluster Study than withdrew after the initial Phase One Cluster Study Reports were published earlier this year. In the future, interconnection customers could face a withdrawal charge earlier in the process, after executing the Phase Two Cluster Study Agreement.

Further interconnection reforms are not likely to accelerate BPA's processing of the interconnection backlog, nor is ODOE or OPUC publishing this information in any attempt to advocate for BPA to adopt further reforms. Instead, this information is provided to support an understanding of the reality of the ongoing implementation efforts and to facilitate future conversations and consideration of whether changes are needed in other processes to better align with BPA's reformed processes.

Status of PAC's Implementation of Interconnection Reforms

Pursuant to the reforms adopted to PAC's LGIPs in September 2025, PAC began a second transition process for interconnection requests, generally grouped as Transition Cluster 2, as distinct from the transition process begun following reforms in 2020 for interconnection requests generally grouped as Transition Cluster 1.

Considering PAC was the first interconnection provider to implement some of the reforms described in this appendix, its experience may be illustrative of what to expect. According to OPUC staff's review in August 2025, a number of large generator interconnection requests in Transition Cluster 1 successfully advanced to the point of having executed a Large Generator Interconnection Agreement, but at that time, no applicant had yet achieved commercial operation. This was still the case as of January 2026 when ODOE gathered publicly available data for this appendix: PAC had many interconnection requests in process – including having completed studies and contracted for the necessary interconnection upgrades to be constructed – but no new request since 2020 was yet operational. Importantly, an applicant may execute a Large Generator Interconnection Agreement but nonetheless need to undertake further study if a higher-queued applicant withdraws and changes the system assumptions.

Implementation of most interconnection reforms is ongoing. PAC implemented a temporary pause on new requests as part of the new reforms: only requests made before June 14, 2024, could potentially be processed under PAC's prior processes or as part of Transition Cluster 2.[cxxxi] The partial pause on new requests in 2024 and 2025 likely contributed to the reduction in large generator interconnection requests statewide in 2024 and 2025. PAC produced the studies for Transition Cluster 2 on May 11, 2026. PAC may determine restudies are necessary, likely in October 2026.

OPUC has implemented further reforms specifically for PAC for certain state-jurisdictional generators, which are briefly described further in Section 4 below. These reforms do not apply to generators over 20 MW, which is the focus of the Report on Reducing Barriers to Clean Energy Deployment.

[cxxxi] PAC, OASIS, 05/20/2025: FERC Order 2023 compliance filing update, ("any Interconnection Customer that had been assigned a queue position by June 14, 2024 (i.e., 30 after PacifiCorp's initial Order No. 2023 compliance filing on May 15, 2024) is eligible to participate in PacifiCorp's transition cluster study process").

Status of PGE's Implementation of Interconnection Reforms

Pursuant to the reforms adopted in December 2024 and January 2025 to PGE's LGIPs described in Sections 1 and 2 above, PGE began a transition process that is still ongoing, called the Transitional Cluster Study. Only interconnection requests made before May 26, 2024, could potentially be processed under PGE's prior processes or as part of the Transitional Cluster Study.[cxxxii] PGE did not accept new large generator interconnection requests until March 2026 for the 2026 Cluster Study. PGE's pause on new requests from May 2024 to March 2026 likely contributed to the reduction in large generator interconnection requests statewide in 2024 and 2025 discussed earlier.

PGE produced a study for the Transitional Cluster Study in January 2026 and a restudy in June 2026. However, due to withdrawals, an additional re-study was required for all but one request in the Transitional Cluster. PGE is still in the study process for the interconnection requests submitted to the 2026 Cluster Study.

Status of IPCO's Implementation of Interconnection Reforms

Pursuant to the reforms adopted in in September 2024 and January 2025 to IPCO's LGIP described in Sections 1 and 2 above, IPCO began a transition process that is still ongoing, called the Transitional Cluster Study. Only requests made before November 1, 2023, could potentially be processed under IPCO's prior processes or as part of the Transitional Cluster Study.[cxxxiii] IPCO did not accept new large generator interconnection requests until March 2025, when there was an opportunity to apply to participate in a future cluster study. IPCO's pause on new requests from November 2023 to March 2025 likely contributed to the reduction in large generator interconnection requests statewide in 2024 and 2025.

IPCO produced reports for its Transitional Cluster Study in 2024, some of which required re-studies in 2025 and 2026.[cxxxiv] IPCO has also produced some reports for new interconnection requests submitted in spring 2025, a group called Cluster 1. IPCO accepted additional new requests in spring 2026, a group called Cluster 2, and is expected to produce reports for Cluster 2 in late 2026.[cxxxv]

Section 4. Potential Areas of Reform for State-Jurisdictional Generators

Overview

The Report on Reducing Barriers to Clean Energy Deployment focuses on facilities over 20 MW in size, but smaller facilities are an important part of Oregon's resource portfolio. This section provides an

[cxxxii] PGE, Open Access Transmission Tariff, FERC LGIP, Section 5.1.1; PGE, OASIS, 2026 Large Generation Interconnection Cluster Study (Feb. 23, 2026).
[cxxxiii] IPCO, *Large Generation Interconnection Process*, https://www.idahopower.com/about-us/doing-business-with-us/generator-interconnection/large-generation-interconnection-process/.
[cxxxiv] IPCO, *Redacted Generator Interconnection Study Reports*, https://www.idahopower.com/about-us/doing-business-with-us/generator-interconnection/generator-interconnection-study-reports/.
[cxxxv] For the latest updates, visit IPCO's interconnection website or IPCO, OASIS, https://www.oasis.oati.com/ipco/.

overview of small generator interconnection requests and some of the potential areas of reform under consideration for the requests subject to OPUC's oversight.

Statistics on Small Generator interconnection Requests

According to the data ODOE gathered in January 2026, from 2000-2025, 1,050 small generator interconnection requests, representing 5,936.8 MW of capacity, were submitted to BPA, PAC, PGE, and IPCO. By comparison, there were 880 large generator interconnection requests, representing 232,149.6 MW of capacity. At first glance, these data may suggest reform efforts should focus solely on large generation, since that is the majority of the proposed capacity (97.5 percent versus 2.5 percent). However, there are important things to understand about small generator interconnection requests and this section provides that context. Ultimately, however, small generator interconnection requests face the same barrier as described in the main report for large generators: limited grid capacity.

First, a significantly higher portion of small generator interconnection requests have been successful, historically, than large generator interconnection requests. From 2000-2025, 207 small generator interconnection requests achieved commercial operation, representing 914.6 MW of capacity, or roughly 11.9 percent of the total capacity to achieve commercial operation in Oregon since 2000. This reflects that 15.4 percent of all capacity represented by small generator interconnection requests has achieved commercial operation. By comparison, only 2.9 percent of all capacity represented by large generator interconnection requests has achieved commercial operation. The following two pie charts illustrate these points. If requests submitted prior to 2015 are excluded, the share of operational capacity from small requests rises to 29.7 percent.

Chart 3. Share of All Capacity of Generator interconnection Requests in Oregon by Interconnection Size, 2000-2025

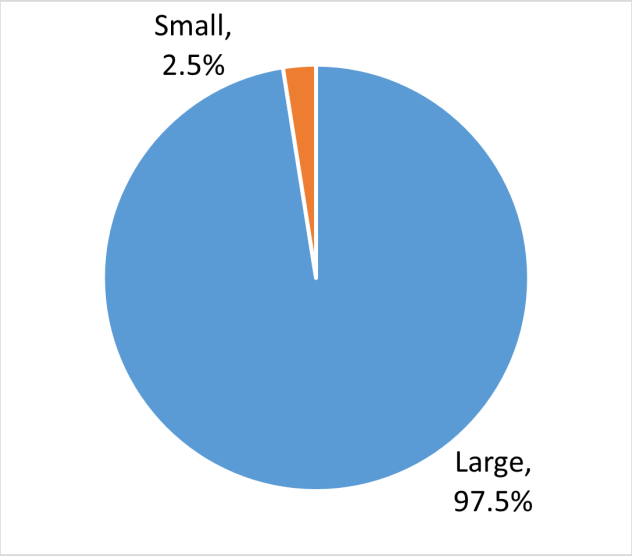
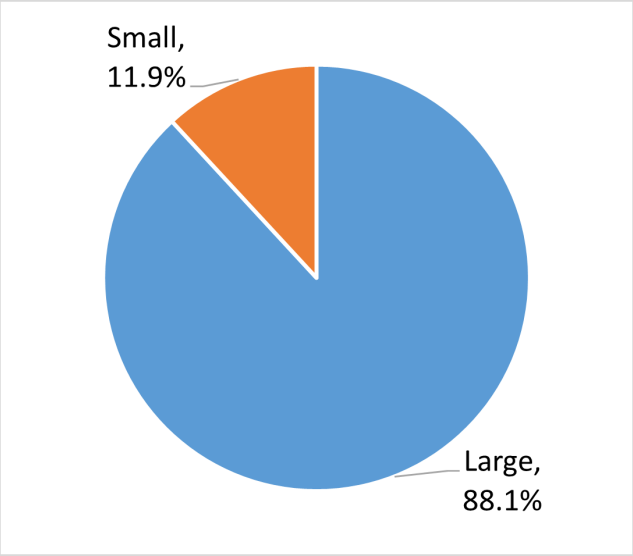


Chart 4. Share of Operational Interconnection Capacity in Oregon by Interconnection Request Size, 2000-2025



Second, a significantly higher portion of small generator interconnection requests are state-jurisdictional. This means the state, through the OPUC, has a greater ability to oversee and, as needed, improve the interconnection process for these requests. From 2000-2025, about 6.1 percent of large generator interconnection requests have been OPUC-jurisdictional, compared to 84.3 percent of small generator interconnection requests. The following two pie charts illustrate the number of requests, large and small, respectively, that have gone to BPA, been FERC-jurisdictional, been OPUC-jurisdictional, or had a jurisdictional status that was not clear.

Chart 5. Large Generator interconnection Requests in Oregon by Jurisdictional Status, 2000-2025

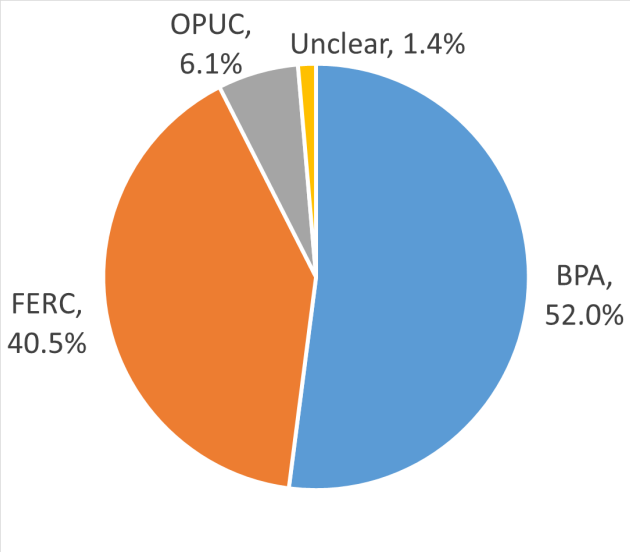
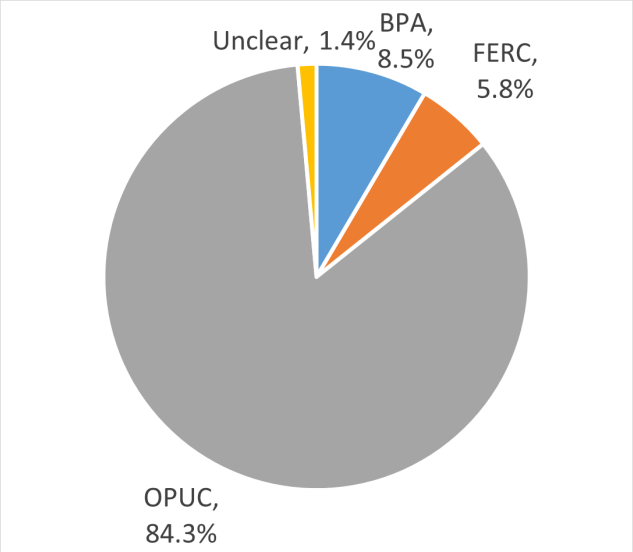


Chart 6. Small Generator interconnection Requests in Oregon by Jurisdictional Status, 2000-2025



An important caveat is that the above data does not include net-metered generation, such as rooftop solar, but it does include small facilities, such as 3 MW and smaller community solar facilities.

The above pie charts also illustrate that, unlike large generator interconnection requests, BPA does not receive the majority of small generator interconnection requests. Instead, almost half were submitted to PAC (48.1 percent by number, 47.3 percent by capacity). PGE received about a third of the small requests (33.9 percent), which represented about 21.5 percent of the total capacity. IPCO received more requests than BPA (100 versus 89), but the requests to BPA represented slightly more total capacity (936.4 MW versus 911.1 MW). This data is summarized in Tables 10 and 11 below.

Table 10. Small Generator Interconnection Requests in Oregon by Interconnection Provider, 2000-2025

Interconnection Provider	#	%
BPA	89	8.5%
IPCO	100	9.5%
PAC	505	48.1%
PGE	356	33.9%
Total	1,050	100%

Table 11. Capacity of Small Generator Interconnection Requests in Oregon by Interconnection Provider, 2000-2025

Interconnection Provider	MW	%
BPA	936.4	15.8%
IPCO	911.1	15.3%
PAC	2,810.8	47.3%
PGE	1,278.4	21.5%
Total	5,936.8	100%

Of the small generator interconnection requests that have achieved commercial operation, both PAC and PGE have interconnected nearly the same number (86 versus 83). However, by capacity, PAC has interconnected nearly half of all small generation (45.7 percent), while PGE has interconnected nearly a quarter of the capacity (21.9 percent). BPA and IPCO have interconnected roughly the same number of small generator interconnection requests (20 and 18, respectively), though BPA has interconnected somewhat more capacity (164.0 MW and 132.5 MW, respectively). These data are summarized in Tables 12 and 13 below.

Table 12. Operational Small Generator Interconnection Requests in Oregon by Interconnection Provider, 2000-2025

Interconnection Provider	#	%
BPA	20	9.7%
IPCO	18	8.7%
PAC	86	41.5%
PGE	83	40.1%
Total	207	100.0%

Table 13. Aggregate Capacity of Operational Small Generator Interconnection Requests in Oregon by Interconnection Provider, 2000-2025

Interconnection Provider	MW	%
BPA	164.0	17.9%
IPCO	132.5	14.5%
PAC	417.5	45.7%
PGE	200.6	21.9%
Total	914.6	100.0%

Table 13 provides a striking comparison with Table 4 in Section 1, which summarized the aggregate capacity of operational large generator interconnection requests by interconnection provider. Far more large requests to BPA have achieved commercial operation than small requests (5,293.0 MW vs 164.0 MW). Requests to PGE show a similar divide (869.0 MW vs 200.6 MW). However, the difference is much smaller for PAC (495.0 MW vs 417.5 MW) and IPCO (136.7 MW vs 132.5 MW).

Looking ahead, PGE has the most small generator interconnection requests in process, both by number and by capacity. PAC has the next most, followed by BPA. IPCO had only one small generator interconnection request in process when the data was gathered. These data are summarized in Tables 14 and 15.

Table 14. Active Small Generator Interconnection Requests in Oregon by Interconnection Provider, 2000-2025

Interconnection Provider	#	%
BPA	16	12.8%
IPCO	1	0.8%
PAC	47	37.6%
PGE	61	48.8%
Total	125	100.0%

Table 15. Aggregate Capacity of Active Small Generator Interconnection Requests in Oregon by Interconnection Provider, 2000-2025

Interconnection Provider	MW	%
BPA	225.4	27.2%
IPCO	4.2	0.5%
PAC	282.7	34.1%
PGE	317.7	38.3%
Total	830.0	100.0%

As with large generator interconnection requests, most small generator interconnection requests have ultimately been withdrawn or otherwise deactivated. However, if only half of the active small requests achieve commercial operation, that would add more than 400 MW of capacity to Oregon's resource mix. Oregon could benefit significantly from helping more small generators achieve interconnection.

Ongoing Discussions at OPUC

OPUC is continuing to advance a multi-year investigation into interconnection process and policies, which began in 2020.[cxxxvi] This effort aims to examine and address a number of different areas of the interconnection process, including interconnection upgrade requirements, cost issues, and process efficiency and predictability. It is occurring through multiple phases. Phase I led to a formal rulemaking, with rule changes adopted in March 2024.[cxxxvii] Phase II is ongoing and expected to transition to a formal

[cxxxvi] *In The Matter of PUBLIC UTILITY COMMISSION OF OREGON, Investigation Into Interconnection Process And Policies*, Docket No. UM 2111.

[cxxxvii] Docket No. UM 2111, Order No. 23-319 (Aug. 30, 2023); *In the Matter of Rulemaking to Update Division 82 Small Generator Interconnection Rules, and Division 39 Net Metering Rules*, Docket No. AR 659, Order No. 24-068 (Mar. 8, 2024).

rulemaking in late 2026.[cxxxviii] OPUC modified Phase II to expeditiously respond to Executive Order 25-25 and may adjust scope and schedule as needed as issues and priorities emerge. For example, OPUC is actively engaging with interested parties on the agency's top priorities pursuant to Executive Order 25-29's direction to establish an agency workplan. OPUC staff have recognized interconnection is an important aspect of work on utility resource procurement generally.[cxxxix]

While there remain outstanding issues to address in OPUC's investigation, external entities have recognized the agency's work as above average. The Interstate Renewable Energy Council and Vote Solar publish "interconnection grades" for U.S. states.[cxl] The most recent ranking assigned Oregon a grade of B, placing Oregon in the top ten states nationwide and in an eight-way tie for second place.[cxli]

Nonetheless, more work remains to be done. As noted earlier, while ODOE does not view the interconnection process itself as a "barrier" to development for purposes of the Report on Reducing Barriers to Clean Energy Deployment, the policy considerations around interconnection include a tension between ensuring near-term reliability and long-term resource adequacy and a tension in cost allocation, which may ultimately have energy affordability implications. Ultimately, reforms are complex and involve a multitude of trade-offs. To facilitate interconnection, for generators of any size, Oregon needs to address the fundamental barrier of limited grid capacity.

[cxxxviii] In the Matter of Temporary Interconnection Rules in Response to Executive Order 25-25, Docket No. AR 683, Order No. 26-108 (Apr. 1, 2026) (adopting temporary rules and opening rulemaking docket to address permanent rule changes, including outstanding UM 2111 Phase II issues); *In the Matter of Rulemaking to Update Division 82 Small Generator Interconnection Rules and Division 39 Net Metering Rules*, Docket No. AR 688, Informal Phase: Staff's Schedule Announcement (May 20, 2026).

[cxxxix] *In the Matter of PUBLIC UTILITY COMMISSION OF OREGON, Identifying Priorities in Implementation of Executive Orders 25-25 and 25-29*, Docket No. UM 2417, Staff's Whitepaper at 8 (Apr. 15, 2026)

[cxl] *See generally* IREC and Vote Solar, Freeing the Grid, https://freeingthegrid.org/.

[cxli] IREC's Interconnection Grades Show Improvement in Several States, May 19, 2026, IREC, https://irecusa.org/blog/irec-news/irecs-interconnection-grades-show-improvement-in-several-states/. According to IREC's press release: "Although this year's results continue to demonstrate that the vast majority of states have significant room for improvement in their interconnection rules (only one state, New Mexico, earns an "A"), … Eight states (Arizona, California, Illinois, Maine, Michigan, New Jersey, New York, and Oregon) received "Bs," indicating they have adopted many current interconnection best practices. All other states received a "C" or lower."

For More Information

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