



To: Adam Schultz
Lead, Electricity Markets & Policy Group

From: Renewable Northwest
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Re: SB 589 – Scoping Questions Response

Renewable NW is pleased to submit responses to SB589 scoping questions. Our responses include a wide range of member inputs spanning both our renewable energy developers as well as our environmental non-profit member perspectives. We appreciate the Oregon Department of Energy's efforts and coordination of SB589's stakeholder process and look forward to further engagement.

Foundational Questions:

Legal Barriers: Oregon's retail electricity customers are served by a complex arrangement of private and public distribution utilities, with the majority of the state's transmission owned and operated by a federal entity. These entities operate under different governing laws, with different types of regulatory and governing oversight.

Renewable NW did not have the capacity to dig into this question.

Oregon-Specific Net Benefits: Technical analysis of RTO formation in the West, inclusive of Oregon, have identified significant quantifiable net economic benefits for the regional power system. There would likely be some variation, however, in the distribution of these net benefits across individual states and utilities.

What are your perspectives on Oregon-specific net benefits that would accrue from RTO formation? Specifically:

- *Are there reasons why you believe that these net benefits found in the technical analyses might be greater or (more importantly) lesser in Oregon? Do you believe there is a need for additional technical analysis of the particular costs and benefits to Oregon from RTO formation?*

The Oregon Clean Energy Pathways Study highlighted that Oregon is situated between two larger load centers (Washington and California), both of which have aggressive clean energy standards.¹ Creation of an RTO would result in lower wheeling charges across the region, thereby benefiting Oregon as a potential exporter of renewable resources to meet nearby states' clean energy standards. Oregon will also benefit from a greater pool of diverse resources to meet its own load. The greater the diversity of resources available to a load center, the more resilient and protected it is from price spikes and

¹"Oregon Clean Energy Pathways Final Report," Evolved Energy Research (June 15, 2021), available at https://renewablenw.org/sites/default/files/Reports-Fact%20Sheets/OR_CEP_Final%20Report%20.pdf

generation outages like those experienced in Texas in the winter of 2021.

- *What are some of the costs and risks that participation in an RTO might introduce specifically for Oregon? Please suggest how these might be mitigated to ensure net benefits to Oregon and how these mitigation measures can be designed to center underserved and low-income communities.*

Renewable NW is not aware of any risks to underserved and low-income communities associated with Oregon's utilities joining an RTO. On the contrary, as mentioned earlier, access to a larger set of resources will both benefit Oregon in terms of costs and resiliency. Further, without an integrated regional market, Oregon will be challenged to meet its own clean energy regulations while maintaining a reliable cost-effective system. A market that is specifically developed to bring diverse, clean resources from a broad geographic region will provide the greatest environmental and financial benefit to Oregon, including its most vulnerable communities.

Oregon Retail Customers: *RTO formation could generate significant economic benefits for participating entities, even after taking into account the cost of participating in and operating an RTO. It is important to consider how these costs and benefits would flow through to Oregon's retail electricity customers.*

What are your perspectives on costs and benefits to Oregon retail customers associated with RTO formation? Specifically:

- *What are some costs that might accrue as a result of participation in an RTO, and how might these be balanced against stated benefits? How might net benefits be measured?*

Renewable NW is not aware of any additional costs to retail customers which might accrue because of participation in an RTO which would not otherwise be overridden by the net benefits and cost savings. The net benefits would be measured in greater renewable integration at lower costs. Other ways Oregon customers could see benefits would be with lower cost of entry, thereby opening up more local opportunities for smaller scale projects to compete in the market.

- *What mechanisms or processes would be needed to ensure that the net economic benefits accrued from RTO formation directly benefit Oregon retail customers?*

To ensure the economic benefits accrued from RTO formation directly benefit Oregon retail customers, Oregon regulators need to have a seat at the table during conversations related to RTO formation. States need to retain a meaningful regulatory role within the RTO to ensure their state clean energy mandates are achievable and that benefits are passed through to all customers. Overall, a collaborative approach to market design must be considered to ensure all impacted stakeholders have a voice in the process.

Principles: *Separate from the consideration of the technical questions below, there may be areas of common ground among stakeholders that can be identified with respect to core principles (e.g., independent governance, a minimal expectation of net benefits to Oregonians, preservation of state policy influence, etc.) that can inform how Oregon evaluates potential RTO formation.*

Are there core principles that should guide Oregon's evaluation of potential RTO formation?

Vision Statement:

A reliable electric system that facilitates meaningful and timely decarbonization: This system will allow western states to meet their clean energy integration and climate goals in the most cost-effective manner possible while ensuring the cost savings and environmental benefits are distributed equitably.

Principles:

- Market should have the broadest geographic footprint possible and should avoid creation of unnecessary seams between markets.
- Non-discriminatory transmission access
- Efficient and competitive management of interconnection and transmission services
- Efficient Variable Energy Resource, bulk storage, and customer side resource (energy efficiency, flexible demand, storage) integration
- Flexible system operations with appropriate incentives to support VER integration
 - Resource adequacy standards that are equitable across a broad range of utilities and that fairly capture the value of capacity resources
 - Reduction of excess reserve requirements for loads and resources
- Enhanced grid reliability
- Centralized transmission planning across the entire market footprint
 - Incentivize the construction of new transmission projects necessary to address grid congestion reliably and cost-effectively and to enable market access for renewables located far from load centers
 - Full consideration of grid-enhancing technologies and non-wires alternatives to expand existing grid capabilities and reduce cost and schedule risk for transmission expansion
- Efficient use of the transmission system to serve load at least-cost
 - Regional cost allocation and elimination of pancaked transmission charges
 - Reduction of inefficient dispatch
 - Use of financial transmission rights by market participants to hedge against potential losses related to the price risk of delivering energy to the grid
- Market must accommodate carbon regulations adopted by participating states
- Includes a GHG accounting methodology that is complementary to existing state clean energy regulations
- Well-designed resource adequacy mechanism or capacity market
- Independent, multi-state model for market governance
 - Include stakeholder processes that are open to meaningful participation by all stakeholders
 - Includes nominating committee process for nomination and election of board members.
 - Includes program review committee with equal representation of non-market participant stakeholders for review of program proposals and amendments
- Use of an independent Market Monitor to monitor program operations, participants, and overall governance structure.

Technical Questions:

Transmission Rates: *The elimination of pancaked transmission rates has been identified as a significant source of economic benefits resulting from RTO formation. Given the existing variation in transmission rates across Oregon (and the broader West, including CAISO), the impacts on individual transmission customers and transmission owners would likely vary.*

Please provide feedback on how these potential impacts to transmission rates from RTO formation would or would not be preferable to the status quo. In responding, you might also consider the following questions:

- **Rates.** *Do you expect that the adoption of uniform transmission rates under an RTO would result in net benefits or costs?*

Pancaked transmission rates, under the current market structure, are a major source of economic inefficiency, as they deter the use of lower-cost generation resources that can be delivered via

transmission in favor of higher-cost local generation. Pancaked rates significantly increase generation costs for ratepayers, and directly increase transmission costs for ratepayers and contribute to congestion, thus decreasing reliability. This rate structure also results in a transaction barrier to fast scheduling that is sometimes needed during severe weather or unexpected events.

- **Revenues.** *Do you expect that the adoption of uniform transmission rates under an RTO would result in a net increase or decrease of revenue for Oregon transmission owners?*

There will likely be greater flows on most transmission lines as lower-cost generation will be dispatched more with uniform transmission rates, relative to the inefficient dispatch of local generation under pancaked rates. In addition, EIM flows currently use transmission at no cost, while under an RTO construct all transmission flows will generate revenue. Oregon's abundant low-marginal-cost hydropower and wind resources will likely see greater utilization if pancaked rates that limit their ability to economically deliver power are eliminated, reducing costs to their owners and off-takers.

Renewable NW believes overall that there is greater possibility for an increase in transmission revenues given the increased number of customers that will be using the system than currently exist today. Further, it is unlikely that transmission owners would agree to join an RTO if they were not made whole on their existing transmission investments. Transitional agreements may be needed to equalize rates over time to allow transmission owners to recover costs. That said, the methodology by which existing transmission owners are "made whole" cannot result in unreasonable costs spread out across the entire market and retail customers must be protected from these costs. In most RTOs formed in the country, the embedded costs of the existing transmission network were handled with load from each transmission owner paying. This is called "license plate rates." Recent analyses have emphasized the importance of revisiting traditional benefit-cost allocation methodologies to move beyond these simplistic constructs. Any increase in revenue flowing to transmission owners over time should be considered an economic benefit of joining an RTO and those benefits should be socialized across the system in the form of decreased rates and infrastructure investments.

- **Solutions.** *Can you describe or identify potential solutions or mechanisms (e.g., examples from other RTOs) to address any adverse impacts related to transmission rates resulting from RTO formation?*

Transmission owners will benefit from a larger number of customers using their system, so while individual costs on a per line basis (under some circumstances) may be impacted, the overall revenue on the system should stay the same or increase as more new renewable generators come online, with overall less investment needed on the system.

Transmission Planning & Operation: *An RTO would be able to provide coordinated transmission planning functions and would centrally operate the transmission system across a wide geographic area, with revenues accrued from individual transmission assets flowing to the participating transmission owner.*

Please provide feedback on how these potential impacts to transmission planning and operation would or would not be preferable to the status quo. In responding, you might also consider the following questions:

- *Generator Interconnection: RTO formation would standardize the process for interconnecting large-scale generators to the transmission system across a wide area. What are the pros and cons of this compared to the status quo? How can an RTO be designed to address these issues?*

The status quo is inefficient and ineffective at integrating new renewable generators. Queues are backed up several years and study deposit costs are untenable for smaller generators. Developers currently struggle with inconsistent tariff provisions across different utilities which typically increases legal costs and the time it takes to complete the process. Standardization would help establish a

predictable, consistent process for interconnection across the region. Additionally, currently public utilities are not required to have FERC compliant tariffs, which leads to wildly inconsistent processes and costs for interconnection on public utility transmission systems. As a result of the inconsistencies in processes and costs, some of Oregon's most resource rich regions are devoid of investment because of the high risk of interconnection on transmission systems without predictable, FERC regulated tariffs.

Standardized RTO interconnection processes would also help to reduce the risk of a vertically integrated utility using the interconnection process to benefit their own generation by deterring competition from interconnection generators. Standardized processes also reduce the inefficiency of independent power producers being forced to adapt to unique interconnection requirements and study assumptions for each transmission service provider.

- **Transmission Planning and Expansion:** *An RTO would affect decisions about the need for new transmission investments. What are the key advantages and disadvantages of this compared to the status quo? How can an RTO be designed to identify least-cost solutions that maximize retail customer benefits?*

Currently, the decision to expand transmission is done on an individual utility basis. The costs associated with new transmission are borne by that individual utility's customers, even though benefits may flow to other regions. Additionally, the information driving the utility's decision to build new transmission is informed by only their existing demand and load. The benefit of an RTO is that the selection and costs of new transmission and enhancements to the existing grid ("non-wires alternatives") can be optimized and are spread out over a much larger footprint, and the decision around where to site new transmission is informed by price signals established across a broad region and therefore is much more accurate to the entire region's needs. The fact that virtually no new transmission has been built in the region since 2012, yet each utility identifies transmission as a major factor in their ability to reliably meet their customers' needs is a testament to the fact that the status quo for transmission planning and cost allocation is not working. Numerous studies have identified the need for North to South transmission capacity between the PNW and CA, as well as East-West between Wyoming and the rest of the West, which can be more easily accomplished with an RTO. Without Oregon's participation, important new transmission investments in the region may not happen.

- **Cost Allocation:** *An RTO could provide a uniform mechanism for allocating the costs of new inter-regional transmission investments. Is the status quo mechanism for allocating the costs of inter-regional transmission projects preferable? What concerns do you have about transmission cost allocation by an RTO?*

There are currently no mechanisms for allocating the costs of inter-regional transmission projects, which is one of the major challenges to building out the new transmission desperately needed. This was one of the goals of FERC order 1000, which has to date not result in a single project applying to cover costs for interregional transmission in the west. Under the current system, the upfront costs are too great, and a utility can only recover the costs from the customers within their own balancing authority. Under an RTO, those costs will be spread out over a much larger pool of customers, who will also all benefit from the new inter-regional transmission project. Experience in ERCOT, SPP, and MISO shows that broadly allocating the cost of large high-capacity lines across an RTO footprint allows lines that provide large and widespread benefits to move forward, while those lines do not move forward under other cost allocation policies.

- **Legacy Transmission Rights:** *RTO operation of the transmission system would seek to replace the existing system of bilateral transmission rights. How would converting those legacy transmission rights into financial rights compatible with an RTO ultimately affect Oregon retail customers? What mechanisms or processes could be developed to mitigate these concerns?*

Conversion of legacy transmission rights into financial rights is a known process and can achieve beneficial results, but considerable care must be taken in design and oversight. The intent and practice of RTO formation in other regions, always with strong support from FERC, was to preserve existing transmission rights. The benefits achieved by moving to an RTO scheduling and operations structure outweigh the possible impacts associated with conversion of physical rights to financial rights. Renewable NW's members have legacy transmission rights on the existing system and would need to go through the conversion process. Despite the potential speed bumps during the development of an RTO, Renewable NW's members have not raised any concerns over this and are eager to see an RTO develop in the region.

This issue is currently being considered by CAISO and will need to be resolved for EDAM to move forward, so there is an excellent opportunity for Oregon's regulators to learn from that process and apply best practices to development of an RTO.

Additionally, when WAPA joined SPP, they carved out transmission associated with serving preference customers, thereby shielding them from any increase in transmission rates associated with joining an RTO. Renewable NW could envision a similar process between BPA and its preference customers.

***Renewables:** An RTO can be designed to support and accelerate the deployment of renewable energy projects, but these design choices could also create new challenges in some cases.*

Please provide feedback on how the implications on renewables development from RTO formation would or would not be preferable to the status quo. In responding, you might also consider the following questions:

- ***Types of renewables:** Technical studies indicate that the types (e.g., wind or solar) of renewable energy projects developed in a state may be substantially impacted by RTO formation. For example, the capacity contribution value of developing particular types of renewables in Oregon may increase or decrease in a West-wide RTO compared to the status quo. Do you anticipate impacts to the types and scale of renewables developed in Oregon would result from RTO formation?*

Renewable NW believes all renewable generators should be valued based on the energy and non-energy attributes they can provide to our electricity system regardless of where they are located and what utility they can sell to under the existing transmission constrained market. Under an RTO construct, renewable generators will benefit from a more accurate attribute accounting, one that is not hindered by the particular needs of one potential off taker or transmission congestion. Additionally, renewable generators will receive greater value for their geographic diversity, essentially the ability to provide a diverse resource to a broader set of customers. From the Oregon Clean Energy Pathways Study, it was noted that the two renewable resources likely to benefit the most from an RTO in the state are offshore wind and solar.² Oregon has a vast solar resource in regions of the state underserved by IOU transmission systems. Under an RTO construct, public utilities will have the same access to the wholesale market and therefore can use their transmission systems to interconnect and sell solar resources. For offshore wind, this is an industry that will be slow to evolve without an RTO where several utilities can invest in the same resource to help cover the initial development costs. Likewise, transmission has been identified as a significant barrier to OSW. Under an RTO construct, the cost of new transmission to bring this resource to load can be shared over the entire footprint of the market instead of borne by one utility operating within the state of Oregon. Overall, it is important for market design and operation to be founded on a non-discriminatory construct to assure that all resources (supply, storage, and demand) are assessed in a transparent and comparable fashion, and that resource ensembles such as hybrids and virtual power plants are fully recognized for their overall system value.

² Oregon Clean Energy Pathways, p. 58.

- **Location of renewables:** *Several studies found that West-wide RTO formation could result in a significant shift in the location of renewable development across different states and regions of the West. This could present opportunities and challenges for Oregon. Do you expect that changes in the location of renewable development would be a net positive or negative for Oregon?*

As mentioned above, Renewable NW notes that Oregon's solar resource and OSW resource are likely to expand under an RTO. We do not see there being any negative impacts on the renewable energy industry in the state of Oregon due to the development of an RTO. If anything, the market will highlight the geographic diversity benefit of renewables across the region. Oregon resources can compete in this market as long as state and local policies support development of new resources. Existing generating resources that sell under bilateral contracts are unlikely to be negatively affected and may have greater access to sell excess energy into the market. Any changes to their existing contracts upon expiration will be addressed by a much larger pool of customers to sell to in the future.

- **PURPA:** *Pursuant to multiple FERC Orders (most recently FERC Order 872), utilities participating in an RTO are exempt from their legally enforceable obligations under PURPA to make avoided-cost pricing available to renewable qualifying facilities with a capacity between 5 MW and 80 MW on the basis that RTOs provide non-discriminatory access to energy markets for projects of this size. What are the pros and cons that these changes to PURPA implementation would create for Oregon?*

Renewable NW recognizes that there are several PURPA projects in Oregon currently serving Oregon load as well as load in other states. We believe these projects should have protection to ensure they continue to serve clean energy to customers under an RTO construct in a way that preserves asset value. FERC Order 872 changed the size threshold from 20 MW to 5 MW for mandatory purchases of qualifying facilities within RTOs.³ However, this ruling was intended to apply to new projects and the utilities will not be exempt from their existing contracts. Specifically, the decision "does not permit disturbance of existing contracts or [legally enforceable obligations] or existing facility certifications."⁴ FERC further ruled that the states still have the authority to determine what a legally enforceable obligation is. Finally, FERC said it will consider proposals to terminate the mandatory purchase obligation for individual utilities operating outside organized markets run by RTOs as well.⁵ Renewable NW notes that the original purpose for PURPA was to provide "non-discriminatory access" to wholesale electricity markets. The federal regulation was successful at doing so in bilateral markets where access to wholesale electricity markets is restricted. Renewable NW supports an RTO construct that provides non-discriminatory access to ALL renewable generators regardless of size, vintage, or type of existing contract.

- **Distributed Energy Resources:** *While a consequence of an RTO could be to adversely affect the adoption of DERs, RTO energy markets could also be intentionally designed to provide new, uniform revenue streams that make it easier to finance DERs. How should RTO design take into account the opportunities and challenges associated with developing DERs? How can RTO design facilitate the adoption of DERs in high-risk, underserved, or low-income communities?*

Renewable NW believes the benefits to DERs under an RTO structure far outweigh the potential adverse effects. Known widely as the two states with the most successful DER programs, California and New York both operate within an RTO construct. While the creation of an RTO may not benefit DER integration in and of itself, the states which have been most successful to date have passed meaningful legislation that either mandates or facilitates the integration of DERs. Oregon has been

³ Order 872, 172 FERC ¶ 61,041 at p. 45 (2020). Available at <https://www.ferc.gov/sites/default/files/2020-07/07-2020-E-1.pdf>.

⁴ *Id.* at 47.

⁵ *Id.* at 365.

lagging behind other states on DER integration for reasons including the high interconnection costs for smaller projects, the lack of any meaningful mandate or incentives, and until recently, minimal utility planning for distribution systems in the context of DER integration. FERC Order 2222 also opens opportunities for DERs to participate in RTOs through aggregation. Order 2222 requires RTOs and ISOs to amend their market rules to allow distributed energy resources to participate in the RTO/ISO markets as if they were a single, larger resource through a new type of market participant known as a resource aggregator. Order 2222 is expected to provide significant benefits to developers and owners of distributed energy resources, as well as the newly created market segment of resource aggregators.

- **Manufacturing potential:** *Some studies note the potential for benefits of RTO formation that are difficult to anticipate or quantify, such as the economic benefits associated with in-state manufacturing of clean energy technologies at-scale. Do you anticipate that substantial economic benefits associated with clean energy manufacturing in Oregon could accrue from RTO formation?*
- **Oregon jobs:** *These issues related to the development of renewables have the potential to affect the number and quality of jobs in the clean energy sector in Oregon. Do you anticipate that RTO formation would result in a net increase or decrease in Oregon-based jobs in the clean energy sector? How can these considerations be incorporated into the design of an RTO?*

Renewable NW believes that the formation of an RTO will result in a net benefit to Oregon based jobs. With an RTO will come increased opportunity for construction of new renewables as the interconnection process and barriers to entry are resolved. As mentioned previously, much of Oregon's solar and OSW potential is hindered by lack of transmission access and availability. An RTO will address some of the transmission hurdles by removing wheeling charges and creating a regional planning structure. Likewise, if Oregon's electricity grid were part of a larger geographic market, there would be opportunities to develop clean energy projects to sell into other markets that currently do not exist today.

Corporate procurements play a major role in clean energy development, accounting for approximately 20% of new procurements in 2021.⁶ Advanced Energy Economy published a study which demonstrates why corporate procurements are common in RTO regions, but minimal in non-RTO states.⁷ AEE claims that any state seriously considering a push to a 100% clean energy standard must consider the benefits of its utilities joining an RTO. The potential for jobs associated with many corporations setting up shop in a state like Oregon depend upon the opportunity for these corporations to meet their clean energy goals through renewable energy procurements. The presence of an RTO would not only result in increased renewable technology goals, but also an increase in jobs associated with corporations with strong clean energy procurement goals.

- **Environmental Impacts:** *Aggressive carbon policies already in place in the West, including Oregon, make it unlikely that RTO formation would significantly accelerate a reduction in carbon emissions. There are, however, other potential environmental considerations resulting from RTO formation.*

Renewable NW believes the formation of an RTO will not result in a significant reduction in carbon emissions. Renewable NW believes that formation of an RTO will significantly accelerate carbon emissions required by state policy and facilitated by clean energy technology innovation. The state-led study concluded that a one market RTO would decrease carbon emissions by 3.2 million tons annually.

⁶ <https://www.utilitydive.com/news/corporate-us-buyers-will-drive-44-gw-to-72-gw-of-new-renewables-levelten-ihs-markit/587442/>

⁷ <https://info.aee.net/aebg-organized-wholesale-markets-and-corporate-advanced-energy-procurement?hsCtaTracking=79fbb6a0-905c-4680-af5c-3eaa4ea104ed%7C0804a435-fff8-4ada-a34f-2173054f53f0>

Adding a carbon price on top of the RTO would further reduce emissions by 42 million tons, an additional 22%. While not all states evaluated in the study saw economic benefits from adding a carbon price to the RTO, Oregon did. Multiple studies point out that the assumptions for meeting the region's recently passed clean energy mandates is predicated upon the existence of a fully integrated regional grid. For states to "go it alone" without regional cooperation would result in significant overbuild of resources with the potential for unnecessary land use impacts. Finally, what is not considered in the state-led study is the role electrification plays in the region. Since the transportation sector remains the dominant source of CO₂ emissions, rapid decarbonization in the form of electrification is necessary to meet OR's GHG reduction goals outlined in the Governor's Executive Order on Climate Change. Electrification will put additional challenges and opportunities to shape load on the electricity grid, which furthers the argument that a fully integrated regional grid is needed to meet our GHG reduction goals.

Please provide feedback on how the environmental impacts resulting from RTO formation would or would not be preferable to the status quo. In responding, you might also consider the following questions:

- **Thermal dispatch:** *There is some potential that RTO formation could result in a short-term increase in the utilization of existing thermal plants, even though most studies find RTOs support the retirement of coal plants and the efficient operation of remaining gas plants, to the degree they are responsive to market price signals. Would these issues create a barrier to RTO formation? Could these issues be addressed through the design of an RTO?*

More likely, the operation of a full RTO will reduce overall dispatch of the most inefficient, costly and GHG emitting thermal units. Oregon's HB2021 set clear clean energy mandates that are required under any market construct. Oregon's mandates on fossil fuel generation in the state and imported into the state will still exist under an RTO construct. Other western states without clear mandates on use or import of fossil fuels may not fare as well and may well become dumping grounds for fossil generation. Oregon's Clean Energy Pathways Study demonstrated that while natural gas remains in the system through 2045 as a capacity resource, replacing it with renewable generation, storage and demand side resources is facilitated by the presence of an RTO which is needed to realize the diversity benefit of regional resources.⁸ As the grid becomes cleaner because of coal plant retirement, and clean energy laws requiring decarbonization of the grid, the issue of residual fossil fuel generation on the system will become less of a concern. Until then, any new energy market created should also include a regional GHG accounting methodology which complements existing state clean energy mandates and GHG reduction goals and mandates.

- **Geographic footprint of renewables development:** *As noted previously, RTO formation could affect the location of renewables development across the West, with the potential to result in different land use impacts in Oregon (in terms of resource type, scale, and location) compared to what might occur absent an RTO. How could an RTO be designed to ensure that potential adverse land use, and other associated environmental and biological impacts to Oregon are adequately addressed?*

Both the Oregon Clean Energy Pathways study as well as the Flexible Grid study base their assumptions on meeting the region's clean energy standards on the presence of an RTO.⁹ Further, studies such as the Nature Conservancy's Power of Place demonstrates that trying to meet clean energy standards under the existing bilateral market framework will result in significantly more land use impacts than under an RTO construct.¹⁰ Under the existing market framework, Oregon will need to either significantly overbuild its own resources or rely more heavily on imports (which means

⁸ Oregon Clean Energy Pathways, p. 58

⁹ Oregon Clean Energy Pathways, p. 63; Western Flexibility Assessment, p. 119.

¹⁰ Nature Conservancy, Power of Place Study found here:
<https://www.scienceforconservation.org/products/power-of-place>

overbuilding in another state) to meet its clean energy mandates under HB2021. Without an RTO land use impacts will be greater, and Oregon will struggle to meet its mandates, thereby resulting in less environmental benefit to the state.

- **Environmental Justice:** *Energy production and delivery has had disparate impacts (both in terms of opportunities created and adverse effects) on different communities across Oregon. Would there be opportunities in designing an RTO to support the state's interests in addressing disparate impacts and environmental justice issues?*

Environmental Justice and equity should absolutely be considered in the planning for an RTO. States need to assert their authority over companies with a financial interest in an RTO to make certain these issues are considered in the development and governance of the market. Advocates representing communities traditionally underrepresented in market development such as community-based organizations, consumer advocates, and communities adversely impacted by climate change should be given a voice in the process.

- **GHG accounting:** *Accounting for the GHG emissions profile of electricity across different regulatory regimes, markets, and state boundaries can be challenging. How could this issue be incorporated into considerations of RTO formation?*

RTO formation offers the opportunity to create a single accounting mechanism that can accommodate the region's different regulatory regimes and support the transition to a 100% clean grid across the region. Various mechanisms exist around the country that offer some degree of accounting functionality, e.g., GATS in PJM¹¹ and e-tags in WECC. But full functionality specifically tailored to achieving a 100% clean electricity grid has been difficult to achieve, especially in areas where RTO structures predate state clean-energy policy.¹² A new RTO, on the other hand, can and should ensure that load-serving entities in Oregon, Washington, California, and other states achieve the operational mandates and policy objectives of Oregon's HB 2021 (2021), Washington's Clean Energy Transformation Act (2019), California's SB 100 (2018), and other clean electricity policies without any double-counting or leakage. In addition to the many benefits of resource diversity and resiliency through resource-sharing, a robust accounting mechanism is one of the central promises of a new western RTO.

- **Climate Resilience:** *For the most part, the studies reviewed did not consider the impacts of RTO formation on energy resilience in the context of our rapidly changing climate. For example, just in the last year, catastrophic wildfires have necessitated the need to shut off power to Oregon communities; historic winter ice storms resulted in widespread outages in the Willamette Valley; and dense smoke from a wildfire earlier this summer forced an outage of major transmission lines connecting Oregon to California.*

Please provide feedback on how climate resilience implications resulting from RTO formation would or would not be preferable to the status quo. In responding, you might also consider the following questions:

- **Geographic diversity of resources:** *What opportunities (e.g., new mechanisms for monetizing and supporting the deployment of resilient microgrids) and challenges (e.g., potential for increased reliance on transmission to import power) could an RTO create to support energy resilience for Oregon communities? How could these issues be taken into account when designing an RTO?*

Policies promoting local resilience can operate within an RTO structure. Several existing markets have provisions for microgrid operations on utility distribution systems. FERC opened the discussion on

¹¹ See <https://www.pjm-eis.com/getting-started/about-GATS.aspx>.

¹² See, e.g., NEPOOL's Integrating Markets and Public Policy process in ISO-NE, <https://nepool.com/zimapp/>.

microgrids and demand side resources in Order 2222¹³, where microgrids can be considered a demand side resource within wholesale electricity markets. States may need to play a role in establishing policies to push distribution system utilities to ensure access to microgrids and demand side resources to meet community resiliency goals.

- **Wildfire nexus:** *The recent shutdown of the AC intertie to California for multiple days due to wildfire smoke is an example of the nexus between wildfires and transmission lines. How can wildfire risks be mitigated in the design of an RTO?*

In addition to advancing system protection, situational awareness, vegetation management, etc., under existing standards and good practice, an RTO as a single operator over a large geographic footprint, should have more ability to route alternate transmission paths in the case of outages. The transmission system would be holistically planned and operated, and transmission is typically planned to an “N-1” standard, allowing full operation of the system with any one line out and developing solutions to address conditions beyond a single contingency.

Governance & Design Questions:

Governance: *Many of the issues identified here help to illuminate the need for effective governance of an RTO that would ensure Oregon’s perspectives are adequately represented.*

Please provide feedback on the priorities or principles that should be incorporated in the development of governance mechanisms for an RTO. In responding, you might also consider the following questions:

- **Best Practices:** *There are a variety of RTO governance models across the country. Can you identify any best practices in RTO governance from around the country (or internationally)?*

Best practices for RTO governance should be based on an independent board structure as described by FERC orders 888 and 2000. Renewable NW supports a governance structure which prioritizes transparency, allows for meaningful stakeholder input, and is flexible enough to evolve as market structures adjust to the needs of the region. We have included a list of governance principles below to provide more detail on our view of independence.

- **Independent Board:** Board members must be elected by a Nominating Committee representing a broad spectrum of stakeholders impacted by development and operations of the market. Board Members should not represent any one sector of stakeholders but should represent ALL stakeholders impacted by the market. Board members must have relevant market experience in areas such as finance, legal, nonprofit advocacy, utility regulation, utility operations, environmental issues, and equity. Board Members should not be affiliated with any current or potential market participant or be employed with or consulting for an entity engaged in electricity generation, transmission, marketing, trading, or distribution in the Western Electricity Coordinating Council. Conflicts of interest should be reviewed by a third party with specific legal experience in independent board structures.
- **Nominating Committee:** The Nominating Committee members should be selected by individual sectors. The Nominating Committee should establish a Board of Directors nomination process and nomination of Board Members should be done on a consensus basis, with voting only used if and only if consensus cannot be reached. A Nominating Committee comprised of representatives from the following entities:

¹³ Order 2222, 172 FERC ¶ 61,041. Available at https://www.ferc.gov/sites/default/files/2020-09/E-1_0.pdf

- Market participants: IOUs, POUs/COUs, FMAs, retail competition
 - Independent power producers
 - Consumer advocates
 - Public interest organizations
 - State regulators
- **Committee of States:** A Committee of States composed of state representatives, either from the public utility commissions or state energy offices at each state's discretion. States should have a meaningful regulatory role in development and operation of the market.
 - **Other Committee Functions:**
 - Program Review - broad stakeholder representation, clear process for public review of proposed program amendments, multi-step review process with checks and balances to ensure stakeholder input is considered, clear process for appeals to the board.
 - Auditing - responsible for assisting with oversight of legal, financial, and regulatory requirements as well as audits.
 - Market Monitoring/Surveillance - one or more committees to oversee the market monitoring process and surveillance of operations. Should be populated with highly skilled industry professionals able to review market operations and participant activity in a critical manner to ensure continued improvement of operations.
 - Participant Committee - Market participants often argue that a separate market participants committee is needed to have conversations about market participation that are not influenced by outside stakeholders. Renewable NW feels that if a Program Review Committee is structured well it could act as both representation for market participants and other affected stakeholders, without creating firewalls and necessitating the duplicative review process of having separate committees to review program amendments.
 - *New Practices: What are some new governance mechanisms that could ensure net benefits to Oregon retail customers are considered as a result of Oregon RTO participation?*

Renewable NW suggests Oregon lawmakers and regulators should be involved in discussions around market development and governance to ensure RTO benefits are passed on to retail customers. There are examples of governance structures within different markets that allow states to retain varying levels of authority over issues. It will be up to each state to determine what level of authority they need to retain to ensure the needs of their state are met. If regulatory authority cannot be maintained in a manner appropriate to state regulators, legislative or litigation options may exist. To avoid relying on the latter options, it will be important for states to have a voice in development and governance very early in the process.

- *State interests: Some stakeholders in other RTOs contend that vesting too much governing authority in participating utilities and existing transmission owners makes it difficult for the state to adopt and implement new policies. How can an RTO be designed to balance the interests of meaningful state oversight and policy with the interests of RTO participants?*

It is true that when a state's regulated utilities join an RTO, the state gives up some regulatory authority. As mentioned before, there are models of existing markets where states retain some authority over the utilities within their jurisdiction. Opportunities for states to be proactive about retaining rights under an RTO include: Intervening in FERC proceedings related to development of markets where the proposed governance structure does not meet the needs of the state; obtain §205 filing rights complementary to

those held by RTOs and transmission owning utilities; ensure the presence of a state's committee similar to the CAISO EIM Body of State Regulators; and ensure a strong stakeholder process to ensure voices not typically considered in these types of process are heard.

Governance principles: *Can you identify or describe specific governance principles that you believe should be incorporated into the design of any RTO? For example: geographic balance of representation on the governing board; public power representation; mechanisms for meaningful input and guidance from state policymakers; retail customer protections; opt-out provisions for participating members; etc.*

- **Market Design Optionality:** *There are numerous ways that energy markets could be designed. The studies we reviewed considered multiple different constructs, from the bilateral status quo, to an expansion of real-time (EIM) and day-ahead markets (EDAM), to multiple full RTOs across the West or a single West-wide RTO.*

Please provide feedback on the priorities or principles that should be considered when designing specific energy markets like those that would be administered by an RTO. In responding, you might also consider the following questions:

- **Retail Customer Benefits:** *Assuming that substantive barriers and challenges can be satisfactorily addressed, do you expect the cumulative benefits to retail customers in Oregon to be significantly greater under certain constructs than others? Is a minimum viable size for the geographic or jurisdictional scope of an RTO necessary to achieve sufficient retail customer benefits to justify forming an RTO?*

The greatest benefits to retail customers will come with a market that pools resources from the broadest geographic footprint, removes barriers to entry for new resources, incorporates a single transmission charge and tariff, conducts an effective transmission planning process, and is overseen by a truly independent board with a governance structure that allows for open, transparent decision making and meaningful stakeholder input.

The State-Led Study on markets estimated that the formation of an RTO with full functionality of the offerings of an imbalance market, a day ahead market, resource adequacy, and transmission planning will have three times the gross benefits of any of the individual incremental market enhancements that currently exist or are in development¹⁴. The benefits to retail customers will flow through from reduced operating cost, right-sizing new resource and transmission investment, and improving reliability and resilience. Likewise, as noted earlier, decarbonizing our region without a fully functional RTO will be cost prohibitive and would likely have severe negative impacts on retail customers. Perhaps the best way to view the potential benefits to retail customers is that the cost of decarbonizing the grid is less likely to impact retail customers negatively if it can be done over a large geographic footprint where system operation and investment can be fully optimized and costs can be socialized over more customers, decarbonizing the grid can occur quicker and at lower costs.

- **Optionality:** *Are there opportunities to consider different ways of dividing the traditional functions of an RTO across multiple legal entities in a manner that can simultaneously maximize benefits to Oregon retail customers while minimizing other potential barriers or concerns (e.g., around governance or preserving state influence over Resource Adequacy)?*

A multi-jurisdictional system separating out functions is possible, however as demonstrated in the State Led Study, a single market option with full RA, transmission and security constrained economic dispatch functions provides the greatest benefits. Unless these functions operate across the same geographic footprint, the full benefits of each function will not be realized. In the current development of the Western Resource Adequacy Program, it has been argued that 70% of the benefit to the region

¹⁴ Energy Strategies. State-Led Market Study Stakeholder Meeting – Q2 2021 Presentation Pg. 23

comes simply with establishing the RA function. What has not been fully thought out is the challenge of the existing transmission paradigm in the region. RA and transmission must be correlated and work in sync with each other to realize the full benefits of a regional market.

- **Marginal Cost Dispatch:** *What types of changes, if any, might be incorporated into the design of RTO energy markets to support regional system reliability as zero marginal cost renewables increase their share of the power mix?*

At some point, all RTOs will need to grapple with this question. There are several research institutes evaluating different ways to price energy in systems dominated by zero cost resources. Ultimately, it is a great problem to be faced with solving as zero marginal cost resources are better for customers. To answer this mostly academic question, we need to stop looking at our energy markets as if they were based on traditional fossil fuel generators and embrace the variability that comes with renewable generation. Further, we need to seriously consider a model that includes vast amounts of storage and demand response. Price transparency and efficiency in RTOs would ensure that resources such as storage and demand response are incentivized to participate in the market thereby increasing their share and ultimately leading to more efficient integration of renewable energy resources from the lens of reliability and resiliency.