



Oregon

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To: Energy Facility Siting Council

From: Christopher M. Clark, Siting Policy Analyst & Rules Coordinator

Date: December 31, 2019

Subject: Agenda Item I (Information Item): Solar Photovoltaic Rulemaking – Analysis and Preliminary Recommendations for the January 23-24, 2020 EFSC Meeting

STAFF RECOMMENDATION

In consideration of input from the Rules Advisory Committee (RAC) appointed for the solar photovoltaic rulemaking project, staff recommends that Council:

1. Adopt a definition of “solar photovoltaic power generation facility” that is consistent with the Land Conservation and Development Commission’s definition under OAR 660-033-0130(38)(f). The definition would act as a trigger for a multifactorial analysis of when solar projects under common ownership are considered to be an “energy facility.”
2. Amend OAR 345-020-0006(3) and 345-021-0000(2) to implement statutory changes in the types of facilities that can elect to obtain a site certificate under HB 2329 (2019).

Staff further recommends that the RAC appointed for this project be convened to provide input on draft proposed rule language prior to the council’s consideration of proposed rules and issuance of the Notice of Proposed Rulemaking.

BACKGROUND

Solar energy is an important, and growing, part of Oregon’s energy system. Data collected by the Oregon Department of Energy suggest that over 370 MW of solar capacity was added in the utility sector alone between 2015 and 2019, with an additional 430 MW of additional capacity contracted for future development.¹ As shown in Figure 1, both the number and size of solar facilities in Oregon have increased rapidly in recent years, with an additional 964 million kWh of annual production being added between 2015 and 2018.² The U.S. Energy Information Administration expects the solar sector to continue being one of the fastest growing sources of energy in the near future due to availability of tax credits and declining installation costs.³

¹ Oregon Department of Energy. *Oregon Solar Dashboard*. <https://www.oregon.gov/energy/energy-oregon/Pages/Oregon-Solar-Dashboard.aspx>. Accessed Dec. 16, 2019.

² Ibid.

³ U.S. Energy Information Administration. *Annual Energy Outlook 2019*. January 24, 2019.
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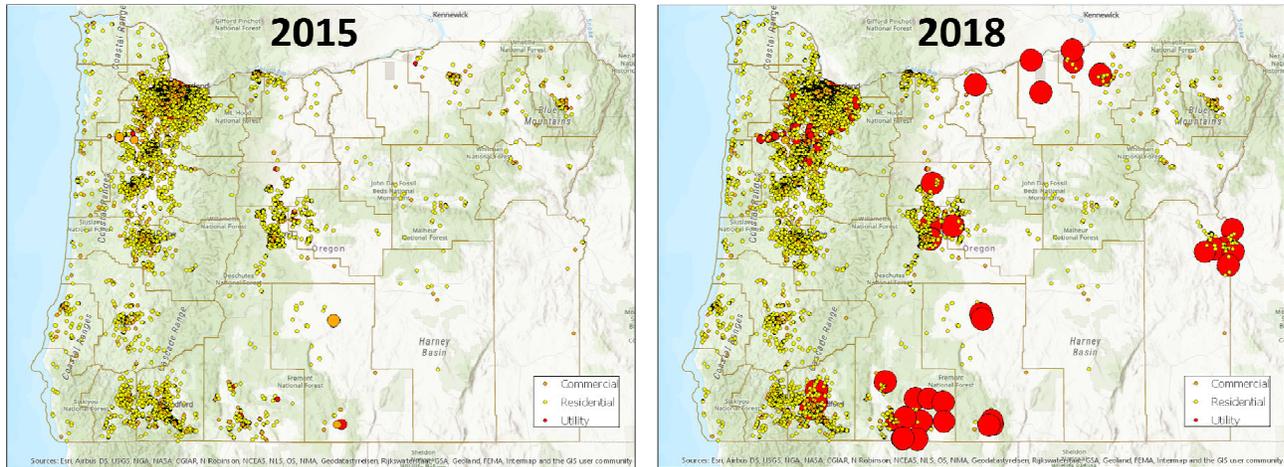


Figure 1. Solar development in Oregon by sector and annual kWh production (ODOE, 2019) Note: The sizes of dots shown on maps are scaled to the amount of energy produced, not the physical footprint or land area of facilities.

Development of utility-scale solar facilities has been a driver of growth in the solar sector over the past several years. Growth has not been even across the state, with about 80 percent of utility sector production located east of the Cascades.⁴ The vast majority of these utility-scale solar facilities were sited under local governmental jurisdiction.

As shown in Table 1, as of December 2019, the Council has issued one site certificate to a solar facility as well as two amendments which added solar energy production to existing wind and thermal facilities. The combined capacity of solar photovoltaic power generation from the operating or approved energy facilities from solar was around 327 MW.⁵ An additional 4 projects, representing 826 MW of solar capacity, were under review by Council.

Table 1. Facilities under EFSC Jurisdiction, Dec. 2019

Facility	Type	Status	Solar Capacity (MW)	Facility Size (ac.)	County
Carty Generating Station	Nat. Gas /Solar	Operating	50	315	Morrow
Boardman Solar Energy Facility	Solar	Approved	75	798	Morrow, Gilliam
Montague Wind Power Facility	Wind/Solar	Approved	202	1,189	Gilliam
Bakeoven Solar Project	Solar	Proposed	303	10,615	Wasco
Blue Marmot Solar Energy Facility	Solar	Proposed	60	5,170	Lake
Madras Solar Energy Facility	Solar	Proposed	63	284	Jefferson
Obsidian Solar Center	Solar	Proposed	400	3,921	Lake

While growth in the solar sector has made many positive contributions to Oregon’s economy and energy goals, some concerns have risen about the impacts large scale solar development has on areas such as land use, wildlife and wildlife habitat, and cultural and archaeological resources. In

⁴ Oregon Department of Energy. [2018 Biennial Energy Report](#). November 2018.

⁵ This includes 202 MW of capacity at the Montague Wind Power Facility for which the certificate holder has requested an amendment to its site Certificate to potentially install solar in place of wind energy.

addition, concentration of solar development around transmission corridors has resulted in some solar projects being located in close proximity to one another, raising legal questions about the proper interpretation and application of the state jurisdictional thresholds for solar photovoltaic power generation facilities set by ORS 469.300.

Department staff included a proposed rulemaking project to address these issues in the recommended rulemaking schedule for 2018, presented at the December 14-15, 2017 Council meeting. Council approved inclusion of the project, adding a review of issues, such as land use, which may require the development of specific standards for the siting of solar facilities to the scope of the project. On June 29, 2018, Council directed Oregon Department of Energy staff to begin the solar photovoltaic rulemaking project, defining the scope of the project with three objectives:

1. To evaluate whether multiple non-EFSC jurisdictional solar photovoltaic facilities could aggregate in a way that the aggregate is functionally the size of an EFSC jurisdictional solar photovoltaic facility;
2. If it is determined that multiple non-EFSC jurisdictional solar photovoltaic facilities could aggregate in a manner that is functionally equivalent to the size of an EFSC jurisdictional facility; to develop new rules that identify objective criteria for determining the circumstances of when multiple non-EFSC jurisdictional solar photovoltaic facilities functionally aggregate to the size of an EFSC jurisdictional solar photovoltaic facility; and
3. To evaluate whether specific standards should be developed for the siting of solar photovoltaic facilities, and if so to develop such standards.⁶

Council appointed a Rules Advisory Committee (RAC) representing energy developers, conservation organizations, local governments, state agencies, and members of the public to discuss the questions, provide input to help inform staff's evaluation of the Council defined purpose of the rulemaking project, and to provide input on the drafting of any proposed rule language.

The RAC discussed the first objective of the scope at its first meeting on August 30, 2018. The RAC discussed a number of issues related to current and historic approaches to jurisdictional determinations, and some RAC members raised concerns over the phrasing of the project scope.

On October 25, 2018, Renewable Northwest, the Association of Oregon Counties, and the Oregon Solar Energy Industries Association submitted a letter to Council requesting that Council seek legal advice on whether or not it could extend its jurisdiction to non-jurisdictional facilities. Upon review and consultation with legal counsel, staff agreed that rules extending jurisdiction to "non-jurisdictional facilities" could be problematic, but that ambiguity in what solar facilities are "jurisdictional" or "non-jurisdictional" persisted. Staff concluded that rules interpreting the term "solar photovoltaic power generation facility," would likely be within Council's statutory authority, and that such rules could potentially provide additional clarity, consistency, and predictability in how Council applies the jurisdictional thresholds for the siting of energy facilities under ORS 469.300(11).

⁶ EFSC Meeting Minutes, June 29, 2018.
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To clarify the purpose of the project and address the concerns raised in the letter, staff presented a revised project scope for the project in its proposal for the 2019 Annual Rulemaking Schedule approved by Council at its February 22, 2019 meeting. The revised scope states the purpose of this project is to evaluate whether rulemaking is needed to clarify:

1. What is considered to be a “solar photovoltaic power generation facility” as that term is used in the definition of “energy facility” under ORS 469.300(11); and
2. Whether there are issues unique to solar photovoltaic facilities that require development of specific siting standards similar to those that govern wind facilities, fossil-fueled facilities, transmission lines, and pipelines.

Additional RAC meetings were held on November 8, 2018 and January 30, 2019 to discuss whether specific siting standards for solar facilities would be required. These discussions inform the analysis and recommendation of **Issue 2**.

A fourth RAC meeting was held on March 6, 2019 to discuss the revised jurisdictional question. This discussion, as well as the discussions described above inform the analysis of **Issue 1** below.

Work on this project was suspended following the introduction of legislation relating to solar photovoltaic jurisdictional thresholds during the 2019 legislative session. The legislature ultimately approved the bill, HB 2329, and it became effective on January 1, 2020. While the bill increased the size of facilities that may be sited under local governmental jurisdiction, it did not change the underlying analysis required to determine what is considered to be an “energy facility.” As a result, staff does not believe that the issues currently included in the scope of this project should be amended. Staff have, however, identified some rules which allow certain non-jurisdictional facilities to elect to obtain a site certificate which are not consistent with the new law. In addition to providing analysis and recommendations on the two issues currently approved as the scope of this project, this report recommends changes to those rules to bring the rules into consistency with the new law under the discussion of **Issue 3**.

ISSUES ANALYSIS

This section provides analysis and recommendations for the following issues:

1. What is considered to be a “solar photovoltaic power generation facility” as that term is used in the definition of “energy facility” under ORS 469.300(11)?
2. Are there issues unique to solar photovoltaic facilities that require development of specific siting standards?
3. What additional rule changes are necessary to implement HB 2329 (2019)?

As described above, the discussions below are informed by advice provided by the Council, RAC members, and other stakeholders but the recommendations below represent staff’s independent evaluation.

Issue 1: What is considered to be a “solar photovoltaic power generation facility”?

The Council has jurisdiction over facilities that meet the statutory definition of an “energy facility.” Under ORS 469.300(11)(a)(D), a solar photovoltaic power generation facility is an “energy facility” if it uses more than:

“(i) 160 acres located on high-value farmland as defined in ORS 195.300;

(ii) 1,280 acres located on land that is predominantly cultivated or that, if not cultivated, is predominantly composed of soils that are in capability classes I to IV, as specified by the National Cooperative Soil Survey operated by the Natural Resources Conservation Service of the United States Department of Agriculture; or

(iii) 1,920 acres located on any other land.”⁷

Under this definition, a project that proposes to use less than 160 acres of land is automatically subject to review by the local jurisdiction in which it is proposed to be located; a project that proposes to use 1,920 acres or more of land is automatically subject to review by the Council. If a project proposes to use between 160 and 1,920 acres, a soils mapping exercise is required to determine jurisdiction. As noted in the introductory sections of this report, in addition to determining the characteristics of the land a solar facility is sited on, it can be challenging to determine what project components should be considered to be part of the solar facility when multiple projects overlap or are sited in close proximity to one another.

Background

The current jurisdictional thresholds described above were set by HB 2329 (2019) which became effective on January 1, 2020. Before the bill became effective, the thresholds for a solar photovoltaic power generation facility to be an energy facility were 100 acres for high-value farmland, 100 acres for predominately cultivated land or land that is predominantly composed of class I to IV soils, and 320 acres for any other land.⁸ Staff notes that while the size of facilities that may be permitted at the local level have increased, the underlying analysis for determining jurisdiction has not changed, and several theoretical and practical challenges in its application remain to be addressed.

Because solar facilities are modular in nature, it can be difficult to identify individual projects and their associated impacts. Unlike a conventional thermal power plant, a solar project may consist of several arrays spread across multiple locations, may be developed in phases, and may be split or combined according to customer needs. When projects are located in close proximity to one another or are connected by related and supporting facilities such as transmission lines or interconnection facilities, it may not be immediately apparent that they are separate facilities.

In addition, the ability to phase or split projects could allow developers or owners to break projects down into smaller parts to avoid the additional time and costs associated with regulation. The Department has not conducted the research to determine if this type of project segmentation has occurred, but there is evidence that solar developers actively design and manage projects to ensure that they do not exceed jurisdictional or other regulatory thresholds.

Figure 2 shows the cumulative frequency percentage of the sizes of 156 non-residential solar projects in Oregon identified in data collected by the Department of Land Conservation and Development as being approved, constructed, or under review in September 2018. The graph shows a project size on the x-axis, and a running total of percentages on the y-axis so that the

⁷ 2019 Oregon Laws, ch. 650, s. 1.

⁸ 2013 Oregon Laws, ch. 320, s. 1.

curve rises towards the top of the graph, which represents all 156 projects. The curve shows the percentage of these projects which are under a given size. For example, the point marked 12 acres, which is the threshold for when an exception is required to site a solar facility on high-value farmland, shows that about 64 percent of projects use 12 acres of land or less.

Variation in property and resource availability, customer demand, and financing constraints would be expected to create a more normal distribution of project size, or a smoother curve. Analysis of projects in this sample shows a disproportionate number of projects are proposed at or just below regulatory thresholds, creating “kinks” in the curves.

The first kink is at 12 acres, which as discussed above, is the threshold for when a goal exception is required on high-value farmland under OAR 660-033-0130. Of the 156 projects in the sample, 68 projects are exactly 12 acres.

A smaller kink, representing 6 projects, appears at exactly 320-acres, which was the threshold for Council jurisdiction on “other land” when the data were collected in 2018. Of note, only 4 out of the 156 projects exceeded the 320-acre threshold. These four projects, Montague Wind Power Facility, Boardman Solar Energy Facility, Blue Marmot Solar Energy Facility, and the Obsidian Solar Center, range from 798 to over 5,000 acres.⁹ Nothing in the data suggests that inappropriate project segmentation has occurred, and it is not unusual for developers to reduce project size to avoid additional regulatory costs which may affect the profitability or feasibility of a project. What the data do show is that developers have control over project size and may have incentives to use that control to avoid regulatory thresholds.

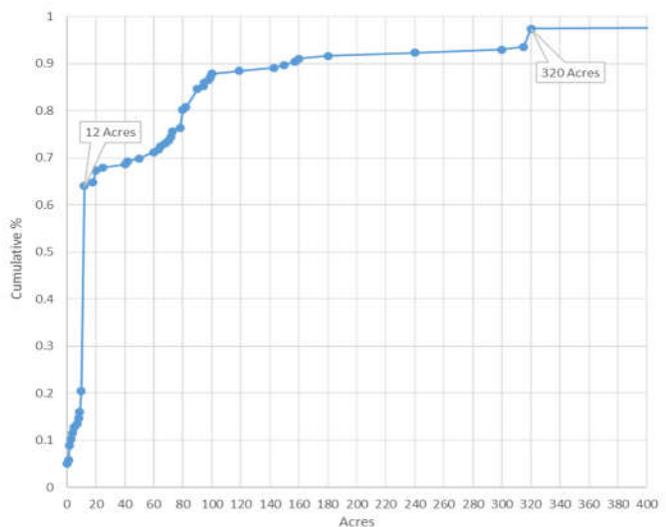


Figure 2. Cumulative Frequency of Solar Facilities by Size

While the rapid growth of the solar sector has raised the question described above, they are not unique to solar projects or energy development in general. The Council addressed similar issues for wind facilities through the development of a list of 15 Questions in the late 2000s related to project proximity, ownership, infrastructure, operation, financing, and business contracting. The questions were intended to help determine whether wind projects were separate facilities or not for the purposes of determining jurisdiction. EFSC never formally adopted the questions as rule or policy, although in 2008, EFSC did consider adoption of a condensed version of the questions by rule, following a petition for rulemaking by the Oregon Natural Desert Association.

⁹ As shown in Table 1., the Council has received applications for two additional projects since these data were collected,.

There are also examples of how other regulatory authorities have addressed these issues in other contexts. For example, under the National Environmental Protection Act (NEPA), a federal agency cannot avoid a finding of significance by “termining an action temporary or by breaking it down into small component parts.”¹⁰ Washington’s State Environmental Policy Act requires proposals or parts of proposals that are closely related enough to be, in effect, a single course of action to be evaluated in the same environmental review.¹¹ The California Environmental Quality Act similarly requires individual projects that comprise a project with significant environmental effect to be reviewed in a single environmental impact review.¹²

Some states have also adopted rules or procedures to help better define what is considered to be equivalent to an “energy facility” for jurisdictional determinations. The New York State Board on Electric Siting and the Environment has developed a multifactorial analysis concerning the “physical, legal, and operational separation” of proposed solar facilities for the purpose of determining whether or not those facilities should be aggregated into a single “major electrical generating facility” subject to the Board’s jurisdiction. Factors considered by the Board include:

- “1. Project Ownership and/or Financial Separation: Whether the project(s) proposed are owned by the same or different project and parent companies and will be financed together or separately.*
- 2. ISO Queue Position(s): Whether the project(s) occupy one or multiple ISO queue positions.*
- 3. Electrical Relationship of Interconnection Point(s): Whether the project(s) are connecting to the same or different circuits, substations, transformers, etc.*
- 4. Physical Proximity of Projects/Property: Whether the project(s), including interconnection points are on properties that abut one another or are separated and the distance of such separation.*
- 5. Operational Separation: Whether the project(s) will operate independently from one another, i.e. same or different SCADA systems.*
- 6. State Grant Award Status: Whether the project(s) have received one or multiple awards from NYSERDA, New York Power Authority or any other state agency that procures renewable energy generation.*
- 7. Sale of Power: Whether the project(s) will have one or multiple off-take contracts for power, capacity, and RECs.”¹³*

¹⁰ 40 CFR 1508.27

¹¹ WAC 197-11-0060

¹² 14 CCR 15165

¹³ New York State Board on Electric Generation Siting and the Environment. Declaratory Ruling Concerning Jurisdiction for Petition of Granada Solar LLC. Case 18-F-0656. Issued January 11, 2019.

Minnesota law provides that in determining whether a combination of solar facilities meets the 50 MW threshold for the definition of a “large electric power generating plant,” the statutory equivalent of an “energy facility”, the Minnesota Public Utilities Commission must combine the capacity of any solar facilities which are “constructed within the same 12-month period” and exhibit “characteristics of being a single development, including but not limited to ownership structure, an umbrella sales arrangement, shared interconnection, revenue sharing arrangements, and common debt or equity financing.”¹⁴

Similar to Minnesota’s law, the Oregon Public Utilities Commission also places restrictions on the participation of projects that exhibit characteristics of a single development in the Oregon Community Solar Program unless the aggregate nameplate capacity of the projects is three megawatts or less, or the projects are all located within a single municipality or urban area.

OAR 860-022-0070(2) “Co-location’ means two or more projects that exhibit characteristics of a single development, such as common ownership structure, an umbrella sale arrangement, revenue-sharing arrangements, or common debt or equity financing. Projects are not considered co located solely because the same person provides tax equity financing for the projects. Co-location of projects is not permitted within a five-mile radius unless:

(a) The aggregate nameplate capacity of the co-located projects is three megawatts or less; or

(b) The co-located projects are all sited within a single municipality or urban area as defined in the Program Implementation Manual.”

The Land Conservation and Development Commission (LCDC) has adopted rules related to the siting of “photovoltaic solar power generation facilities” on land zoned for exclusive farm use, the zoning designation where most utility scale solar facilities are likely to be proposed. Under OAR 660-033-0130(38), a solar facility may not be approved for a conditional use permit on more than 12 acres of high-value farmland, 20 acres of arable land, or 320 acres of nonarable land without taking a goal exception under ORS 197.732 or 469.504. OAR 660-033-0130(38)(f) clarifies how these acreage thresholds are to be applied for the purposes of determining when a goal exception is required:

“Photovoltaic solar power generation facility’ includes, but is not limited to, an assembly of equipment that converts sunlight into electricity and then stores, transfers, or both, that electricity. This includes photovoltaic modules, mounting and solar tracking equipment, foundations, inverters, wiring, storage devices and other components. Photovoltaic solar power generation facilities also include electrical cable collection systems connecting the photovoltaic solar generation facility to a transmission line, all necessary grid integration equipment, new or expanded private roads constructed to serve the photovoltaic solar power generation facility, office, operation and maintenance buildings, staging areas and all other necessary appurtenances. For purposes of applying the acreage standards of this section, a photovoltaic solar power generation facility includes all existing and proposed

¹⁴ Minn. Stat. 216E.21. A similar law is also in place for size determination of wind facilities.
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facilities on a single tract, as well as any existing and proposed facilities determined to be under common ownership on lands with fewer than 1320 feet of separation from the tract on which the new facility is proposed to be sited. Projects connected to the same parent company or individuals shall be considered to be in common ownership, regardless of the operating business structure. A photovoltaic solar power generation facility does not include a net metering project established consistent with ORS 757.300 and OAR chapter 860, division 39 or a Feed-in-Tariff project established consistent with ORS 757.365 and OAR chapter 860, division 84.”

This definition requires all photovoltaic solar power generation facilities on a single tract, and all facilities under common project ownership that are sited on tracts of land within a quarter mile of one another to be treated as parts of a single facility.¹⁵ Although LCDC rules do not govern EFSC jurisdiction, the Council must find that a facility complies with LCDC’s rules and goals under the Council’s Land Use Standard unless a goal exception is taken under OAR 345-022-0030.

All of these examples provide models of how the Council may approach the question of what it considers to be a “solar photovoltaic power generation facility.” Note that, for the most part, the examples provide an analytic methodology for making a determination rather than making a bright-line distinction.

Alternatives

Based on the examples discussed above, the Council has several alternatives for determining what it considers to be a solar photovoltaic power generation facility. Alternatives range from the adoption of informal guidelines which would provide flexibility in implementation to more rigid approaches such as the adoption of a bright line test or prohibition on certain activities. Staff did not consider any alternatives which would require legislative action.

1. Make no changes

Council could decide to take no action at this time and maintain the status quo. Because the number of facilities that would meet the increased thresholds for Council jurisdiction under HB 2329 is uncertain, there may be arguments that a rule is not necessary at this time. On the other hand, the increasing size of facilities may make jurisdictional determinations more complex, making clear rules even more important. In either case, it is likely that the Council will be required to make a jurisdictional determination at some point in the future, either in response to a petition for declaratory ruling, in the context of a contested case, or through other means. Not making any changes now would also allow the Council to approach future determinations as it sees fit; however, without the backing of a rule or some prior interpretation, such a determination could be susceptible to legal challenge.

2. Adopt siting guidelines based on the 15 Questions.

The Council could develop, or direct staff to develop, analytical guidelines to be used in determining whether or not a proposed solar facility is independent from an existing facility. The guidelines could be based on the “15 Questions” used for wind facilities, or a similar analysis, and would likely include questions related to proximity of a proposed facility to other facilities, ownership or affiliation of the proposed facility, and the sharing of supporting facilities,

¹⁵ ORS 215.010(2) “Tract” means one or more contiguous lots or parcels under the same ownership.
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administration, and the marketing and transmission of output from facilities. If this option were to be pursued staff recommends that final guidelines be developed in collaboration with local governments and other stakeholders to ensure that, to the extent practical, the guidelines are consistent with existing rules and mirror the analysis a local government would use to determine if a proposed facility is a new use, or a modification of an existing use.

Using this type of analysis may allow for greater consideration of facility-specific facts or conditions than would be provided under a formal rule or test; however, this also means there could be less uniformity in outcomes. It is also unclear that informal guidelines could be relied upon as grounds for an order or determination that is adverse to a developer or other party. The Administrative Procedures Act defines a “rule” as any directive, standard, regulation or statement of general applicability that implements, interprets or prescribes law or policy. The validity of a “rule” which substantially affects the public interest that is not formally adopted through the rulemaking process described in ORS chapter 183, or through a contested case order, may be susceptible to legal challenge.

For these reasons, if this alternative were selected Council may also wish to consider adopting a rule which describes the guidelines and how they would be used. For example, Council could adopt a definition of “solar photovoltaic power generation facility” under OAR 345-001-0010, that describes the analysis the Council would use to make a determination. Such a rule could ensure consistency between state agencies by relying upon language similar to what is used OAR 860-088-0070, the PUC rule which places restrictions on solar projects within a five-mile radius “that exhibit characteristics of a single development.” In the sample rule language that follows, staff have identified several criteria within the 15 questions that could be considered characteristics of a single energy facility:

“Solar photovoltaic power generation facility” may include proposed or existing facilities within five miles of a proposed facility, if the facilities exhibit characteristics of a single energy facility such as common ownership structure, shared related or supporting facilities, or common marketing, sale, or transmission of output.”

3. Adopt bright-line definition based on LCDC criterion by rule.

The Council could adopt a definition of “solar photovoltaic power generation facility” similar to LCDC’s definition under OAR 660-033-0130(38)(f) that explains how the Council will apply the acreage thresholds in statute. To work within the Council’s process, some changes would need to be made to the definition. In particular, the parts of the LCDC rule which include transmission lines, roads, O&M buildings, and other structures that fall under the definition of “related and supporting facilities” under ORS 469.300 would need to be removed. The clauses excluding net metering and feed-in-tariff projects from the definition are also likely unnecessary for the Council’s purposes. Finally, based on feedback from stakeholders, any rule which could force facilities that are not under common ownership to share a site certificate could be problematic, so amendment of the LCDC definition would be needed to ensure that the tract and proximity criteria only apply to facilities under common ownership. Removing or amending these clauses would leave Council with a definition that provides:

“Solar photovoltaic power generation facility’ includes, but is not limited to, an assembly of equipment that converts sunlight into electricity and then stores, transfers, or both,

that electricity. This includes photovoltaic modules, mounting and solar tracking equipment, foundations, inverters, wiring, storage devices and other components. For the purposes of applying the acreage standards of ORS 469.300, a solar photovoltaic power generation facility includes all existing and proposed facilities determined to be under common ownership on a single tract or on lands with fewer than 1320 feet of separation from the tract on which the new facility is proposed to be sited. Projects connected to the same parent company or individuals shall be considered to be in common ownership, regardless of the operating business structure.”

This approach would improve consistency between state and local processes by having similar policies across agencies. In addition, this rule would create a bright-line test to determine whether or not a proposed facility would be considered to be part of an existing facility or not.

There may be some challenges to implementing this alternative, particularly in cases where local permitting of an existing project has already taken place. ORS 469.320(1) provides that “no facility shall be constructed *or expanded* unless a site certificate has been issued...” (emphasis added). The LCDC rule applies to all existing and proposed facilities for the purposes of determining when a goal exception is required; however, it is not clear if a change in ownership of a facility or the underlying property could be considered an “expansion” that triggers jurisdiction. To address this potential statutory issue, and to provide a degree of regulatory certainty to developers, the Council may wish to specify that this rule would only apply to proposed projects, and not to existing projects which are brought under common ownership in addition to the changes above. To discourage misuse of such a provision, it could be written to only exclude facilities which come under common ownership more than 24 months (or other period of time) after permitting, or after both the projects are permitted and operational.

The Council may wish to amend or remove other criteria in the rule as well. The LCDC rule provides that all existing and proposed facilities on a single tract are considered to constitute a facility. Under ORS 215.010(2), a “tract” is defined as “one or more contiguous parcels under the same ownership.” This could be problematic for the Council’s siting process in the unlikely event that multiple large facilities were proposed to be developed on contiguous parcels of land owned by a single person. In the proposed language above, the criterion has been edited to only apply to facilities under common ownership; however, the Council may wish to further or amend or remove the criterion.

In addition, the 1,320-foot criterion in the LCDC rule may be easily avoided by incorporating a quarter-mile buffer between projects and may not be appropriate for the large-scale of the facilities which may become subject to Council jurisdiction, particularly given the potential impacts of solar development on wildlife migration and other resources. A larger distance, such as 1 mile, may incentivize developers to locate larger facilities that may collectively exceed the thresholds for Council jurisdiction further apart or apply for a site certificate early in the siting process. This could help ensure that corridors between fenced solar-facilities are maintained but could still exacerbate impacts on wildlife or land-use by increasing the overall footprint of solar development.

4. Adopt definition that allows for multi-factorial analysis

Instead of adopting a bright-line definition as described under Alternative 3, the Council could adopt a definition of a solar photovoltaic power generation facility that uses the criterion under the LCDC definition as a trigger for a multi-factorial analysis.

This hybrid approach would provide some consistency with LCDC process but would provide more discretion for the Council to account for facility specific circumstances. Importantly, a rule under this alternative would provide that a facility that meets the ownership and proximity criteria of the LCDC rule may be an energy facility based on Council's review:

"Solar photovoltaic power generation facility' includes, but is not limited to, an assembly of equipment that converts sunlight into electricity and then stores, transfers, or both, that electricity. This includes photovoltaic modules, mounting and solar tracking equipment, foundations, inverters, wiring, storage devices and other components. For the purposes of applying the acreage standards of ORS 469.300, a solar photovoltaic power generation facility *may include any* existing and proposed facilities determined to be under common ownership on a single tract or on lands with fewer than 1320 feet of separation from the tract on which the new facility is proposed to be sited, subject to the following:

(a) Projects connected to the same parent company or individuals shall be considered to be in common ownership, regardless of the operating business structure; and

(b) In addition to determining whether facilities are under common ownership, the Council may consider factors including, but not limited to permitting status, shared related or supporting facilities, or common marketing, sale, or transmission of output, in determining whether a solar photovoltaic power generation facility is an energy facility under ORS 469.300."

If Council decided to pursue this alternative, additional work may be needed to determine what process should be used to make jurisdictional determinations, and what would trigger the review. The Council has previously considered petitions for a declaratory ruling with respect to jurisdictional determinations. That process, or a less formal review, may be appropriate here.

5. Adopt a prohibition on improper segmentation of solar facilities by rule.

The Council could adopt a prohibition on segmentation of projects similar to those found in NEPA and other environmental policies by rule. This would explicitly ban a project owner or developer from breaking a project into component parts for the purpose of avoiding EFSC jurisdiction. A person found to have violated such a rule would be required to apply for a site certificate for any segmented facilities that are found to comprise an energy facility and could be subject to civil penalties.

A prohibition of this kind could potentially serve as a powerful disincentive; however, the Department and Council have generally worked towards resolving compliance matters voluntarily. In addition, it may be difficult to determine when project segmentation was intentional, and any enforcement actions would likely be subject to litigation.

Discussion

On March 6, 2019, the RAC convened for this project discussed what factors may be important to consider when determining if multiple solar projects could constitute a “solar photovoltaic power generation facility,” as that term is used in the definition of “energy facility” under ORS 469.300(11). RAC members identified several important factors that should be considered in an analysis, as well as several potential areas of concern.

Most RAC members agreed that factors such as timing, proximity, uptake, operations, and impacts to land use, wildlife, and agriculture as important, but non-determinative things to look at when making jurisdictional determinations. RAC members commented that while it would be problematic to consider facilities under separate ownership to be a single facility, they did not think that shared ownership should automatically result in a determination that multiple projects are in fact a single facility.

Several RAC members commented that permitting status was an important consideration, because there is a business need for regulatory certainty after a sub-jurisdictional project is granted a land-use permit from a local government and goes into construction. These RAC members suggested that if a new facility is proposed near a facility that has been permitted by a county and is in operation, the permitted facility should not be aggregated with the new facility. If a permitted facility expands through a modification or amendment in a manner that requires reopening of the conditional use process; however, the RAC members agreed that it would be appropriate for jurisdictional questions to be raised.

Representatives of local governments stressed that ensuring that facilities can share related or supporting facilities such as transmission lines, substations, and access roads, is important for the management of other impacts on land use. Several other RAC members stated that while co-location of facilities and sharing of infrastructure are generally good practices, they do make projects look more like a single facility in terms of impacts to wildlife and agriculture.

In terms of the general approach Council should take to resolving jurisdictional issues around solar photovoltaic power generation facilities, RAC members had a more mixed range of responses. Several RAC members stated that the current statutory scheme was clear enough without additional rulemaking, or that only non-rule alternatives such as development of guidance should be considered. Others commented that it was difficult to track the differing definitions adopted by agencies, and that the Council’s rule should follow the LCDC definition. Several RAC members expressed a preference for a multi-factor analysis, similar to the 15 questions, whether or not that approach was adopted by rule.

The Department considered all of this advice when developing the alternatives discussed above. While the RAC discussion did not result in clear or objective criteria for evaluating alternatives, it did provide some goals to be considered in a recommendation including that (1) the Council’s approach should be consistent with the local government conditional use review to the extent possible, (2) the Council should avoid bright-line tests in favor of a multifactor analysis, and (3) the Council should balance the need to address cumulative impacts of facilities that are placed in close proximity to one another, with the desire to incentivize co-location of transmission infrastructure and ancillary components.

Recommendations

Based on considerations discussed above, and input from stakeholders, Staff recommends that Alternative 4 would be the most consistent with the goals identified above because it would use the LCDC rule as a basis for review but would avoid the LCDC rule's bright-line tests in favor of a more multifactorial facility-specific approach. It would also promote consistency among state agencies.

Staff believes this is reasonable approach that would provide meaningful incentives for project developers to apply for a site certificate when there is a possibility that future expansion of a facility would expand the size of a facility to a size within Council's jurisdiction. In addition, because related and supporting facilities would be excluded from the definition, two facilities could potentially share a transmission line without being considered a single facility if other factors indicated they were truly separate uses. This would help satisfy county concerns that a rule would discourage collocation of transmission facilities.

If Council approves of this approach, staff recommends reconvening the RAC to provide input on draft proposed rule language and to discuss the issues related to applicability, the tract and proximity criteria, and procedural requirements discussed in the analysis section before initiating formal rulemaking.

Issue 2: Specific standards for solar photovoltaic facilities

The Council has adopted general 14 standards for the siting, construction, operation, and retirement of energy facilities as provided in ORS 469.501(1). These standards address a broad range of subjects that apply to all energy facilities including solar facilities. Generally, the Council must deny an application for a facility that does not comply with the standards. However, for solar, wind, and geothermal facilities, the standards for seismic hazards (OAR 345-022-0020); historic, cultural, or archaeological resources (OAR 345-022-0090); waste minimization (OAR 345-022-0120) and public services (OAR 345-022-0110) may not be the basis for denial of an application; although they may still be applied to impose conditions as the Council determines is appropriate.

The Council has also adopted specific standards for wind energy generation facilities, energy facilities that emit carbon dioxide, and transmission lines that meet the definition of an energy facility. In part due to the large footprint of solar facilities and emergent nature of photovoltaic technologies, the Council instructed staff to examine the existing standards and determine if there were any issues or subjects that may require specific standards for solar photovoltaic power generation facilities.

Background

In its preliminary review, the Department identified four potential areas for discussion about specific issues related to solar facilities:

- Toxicity and safe disposal of panels
- Reflectivity and public safety
- Ambient temperature and microclimate effects
- Wildlife and wildlife habitat

The Department discussed each of these topics with the RAC, and most RAC members felt that the issues were adequately addressed by the existing general standards.

While some panel chemistries do contain hazardous materials, some RAC members pointed out that the waste minimization and public service standards require facilities to manage and dispose of waste in a way that minimizes impacts on surrounding and adjacent areas and public service providers, and would likely allow the Council to impose conditions to ensure that any hazardous waste generated by replacement of panels or facility retirement would be disposed of safely.

The RAC discussed some facilities that had received complaints about glare from exposed racking and other components affecting drivers during construction. Some local governments had imposed conditions that safety signage be installed in addition to other construction related signage. This type of condition would also likely be available to the council under the public services standard if Council determined glare is an issue. Council could also likely require an applicant to provide evidence that a proposed facility is or is not likely to affect public safety in the form of modelling or another glare analysis.

The Department conducted a literature review of available data on microclimate impacts and did not find conclusive evidence that solar photovoltaic facilities have adverse impacts on agriculture in surrounding or adjacent areas. Some RAC members suggested that the Council could impose conditions to require monitoring and could require setbacks if impacts were identified.

The most robust RAC discussions were around wildlife and wildlife habitat. Most RAC members agreed that the existing standard did adequately address the impacts of a single facility by requiring the design, construction, and operation of the facility to be consistent with the fish and wildlife habitat mitigation goals and standards of the Oregon Department of Fish and Wildlife Habitat Mitigation Policy. Some members, however, felt that the standards did not adequately address the cumulative impacts of solar development on wildlife. Several RAC members pointed out that, while there are often benefits to concentrating solar facilities near existing transmission infrastructure, this type of co-location can have significant adverse impacts on wildlife if facilities disrupt important migratory corridors or create additional barriers between patches of important habitat. One RAC member suggested that rather than creating a solar specific standard to address these issues, the cumulative effects standard for wind energy facilities under OAR 345-024-0015 could be expanded to also apply to solar facilities.

Another issue that was raised on several occasions during the RAC process was whether or not solar photovoltaic facilities should be exempt from certain standards, or if they should be subject to fewer application requirements than other facilities. Several RAC members commented that due to the relatively low physical profile and noise emissions from solar facilities, review for those impacts should be limited.

The Council discussed both the issue of cumulative impacts and the scope of review for solar facilities at its February 22, 2019 meeting. While many agreed that these are important issues, the Council indicated that they did not feel that the current rulemaking was the appropriate venue to address them. Instead, this is a topic that could be covered in a future rulemaking.

Alternatives and Discussion

The Council may decide whether or not it will take action at this time. The Council could adopt specific standards for solar facilities if it determines that there are impacts to resources protected by Council standards from solar photovoltaic facilities that are not adequately addressed through the current standards. If Council determines that the current standards are adequate to address impacts associated with solar facilities, or that additional information is needed, the Council may choose to take no action. While the alternative to adopt exemptions or modify standards for solar photovoltaic facilities was not considered, Council could also direct staff to consider that alternative more fully in a future rulemaking.

Recommendations

Because there is limited evidence to suggest that the current standards are not adequate to address the impacts associated with solar facilities, staff does not recommend Council adopt any additional specific standards for solar facilities.

Staff also does not recommend Council amend existing standards to address cumulative impacts of solar facility development on wildlife, or to amend or limit the scope of review for proposed solar facilities within this rulemaking project. Once there is more certainty in the number of new applications for solar facilities the Council will receive under the expanded jurisdictional thresholds established by HB 2329, both of these issues could be re-evaluated for a future potential rulemaking project.

Issue 3: Implementation of HB 2329

In addition to increasing the thresholds for Council's jurisdiction over solar photovoltaic power generation facilities, HB 2329 (2019) also broadened the provisions for which types of facilities may elect to obtain a site certificate under ORS 469.320(8). As of January 1, 2020, a developer or governing body of a local government may elect to defer to Council regulatory authority over certain wind facilities, associated transmission lines, and solar facilities that are not otherwise subject to Council jurisdiction.

Background

The current OAR 345-020-0006(3) and 345-021-0000(2) allow a person to submit an NOI or Application for a wind facility with an average electric generating capacity of less than 35 megawatts, which was the only type of facility which could "opt-in" under the previous law. This was consistent with the language in ORS 469.320(8) that was in place before HB 2020 (2019) became effective. The new law provides:

"ORS 469.320(8)(a) If the developer of a facility elects, or the governing body of the local government after consulting with the developer elects, to defer regulatory authority to the Energy Facility Siting Council, the developer of a facility shall obtain a site certificate, in the manner provided in ORS 469.300 to 469.563, 469.590 to 469.619, 469.930 and 469.992, for a facility that, notwithstanding the definition of "energy facility" in ORS 469.300, is:

(A) An electric power generating plant with an average electric generating capacity of less than 50 megawatts produced from wind energy at a single energy facility or within a single energy generation area;

(B) An associated transmission line; or

(C) A solar photovoltaic power generation facility that is not an energy facility as defined in ORS 469.300 (11)(a)(D).

(b) An election by a developer or a local government under this subsection is final.

(c) An election by a local government under this subsection is not a land use decision as defined in ORS 197.015.

(d) A local government may not make an election under this subsection after a permit application has been submitted under ORS 215.416 or 227.175.”¹⁶

This new language makes two important changes. First, where the old law only allowed the owner or developer of an energy facility to elect to obtain a site certificate, the new law also allows local governments to “defer regulatory authority” to the Council. Second, the new law expands the types of facilities for which regulatory authority may be deferred to include associated transmission lines and any non-jurisdictional solar photovoltaic power generation facility.

Alternatives and Discussion

Because the current rules are inconsistent with the new law, staff recommends that taking no action is not a viable alternative. Council may amend the rules in a number of ways that would be consistent with the new law:

1. Amending the current sections of rule that implement ORS 469.320(8).
2. Adopting a new rule describing procedures for making an election to defer regulatory authority to the Council under ORS 469.320(8).
3. Amending the definition of “energy facility” in OAR 345-001-0010(18) to include facilities for which an election to defer regulatory authority to the Council has been made under ORS 469.320(8).

While all three alternatives would have similar effect, each would emphasize different parts of the process. Alternative 1 would maintain consistency with the current rules, but its placement as part of the application process does not make it clear what other rules apply. Alternative 2 would provide additional clarity on what, if any, requirements the Council would impose to acknowledge or process an election, but such procedures have not been needed in the past, and while there may be some administrative benefits to standardizing the process it is not clear how often these elections will occur. Alternative 3 would clearly establish that all facilities for which an election has been made will be treated the same as other energy facilities. This may be more consistent with the expanded scope of the new law, but may also make the option for facilities with an average generating capacity of less than 100 megawatts to request expedited processing less apparent.

¹⁶ 2019 Oregon Laws, ch. 650, s. 2.
January 23-24, 2019

Recommendations:

Staff recommends Council amend OAR 345-001-0010(18) to specify that a facility for which an election to defer jurisdiction to the Council is included in the definition of “energy facility” for the purposes of OAR chapter 345 and delete OAR 345-020-0006(3) and 345-021-0000(2).

OAR 345-001-0010(18) “Energy facility” **includes: means**

(a) ~~a~~ An energy facility as defined in ORS 469.300, ~~including;~~

(b) ~~a~~ small generating plant for which an applicant must have a site certificate according to OAR 345-001-0210-; **and**

(c) A facility for which a developer or governing body has elected to defer regulatory authority to the Council under ORS 469.320(8)(a).

RECOMMENDED COUNCIL ACTION

Staff is seeking Council’s direction on staff’s recommendations for this rulemaking project, so no formal action is required at this time. In consideration of input from the Rules Advisory Committee (RAC) appointed for this project, staff’s recommendations are as follows:

1. Adopt a definition of “solar photovoltaic power generation facility” that adapts the Land Conservation and Development Commission’s definition under OAR 660-033-0130(38)(f) as a trigger for a multifactorial analysis of when solar projects under common ownership are considered to be an “energy facility.”
2. Amend OAR 345-020-0006(3) and 345-021-0000(2) to implement statutory changes in the types of facilities that can elect to obtain a site certificate under HB 2329 (2019).

Council may adopt these recommendations, adopt the recommendations with modification, or reject one or both recommendations and specify other alternatives for staff to pursue.

Staff further recommends that the RAC appointed for this project be convened to provide input on draft proposed rule language prior to the council’s consideration of proposed rules and issuance of the Notice of Proposed Rulemaking.