



# Oregon

Kate Brown, Governor



**To:** Solar PV RAC

**From:** Christopher M. Clark, EFSC Rules Coordinator

**Date:** February 28, 2020

**Subject:** Solar PV Rulemaking Project Issues Analysis and Recommendations for March 9, 2020 RAC Meeting

**Attachments:** 1. Draft Proposed Rules  
2. OAR 137-002

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This document summarizes the Department's analysis and recommendations for the Solar PV Rulemaking Project. The document and associated draft rules are for information only and are not notice of rulemaking action by the Energy Facility Siting Council. The analysis and recommendations within are subject to change based on input from Council, staff, and stakeholders.

The purpose of this project is to determine if rulemaking is required to: (1) Clarify 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) Determine if there are issues unique to solar PV facilities that require development of specific siting standards; and (3) Implement new statutory provisions related to solar facilities enacted by HB 2329 (2019). At its January 2020 meeting, the Council determined that rulemaking is required, and directed staff to present draft proposed rule language to the RAC.

In addition to advice on the draft proposed rule language, staff requests the committee's recommendations whether the rule will have a fiscal impact, what the extent of that impact will be and whether the rule will have a significant adverse impact on small businesses.

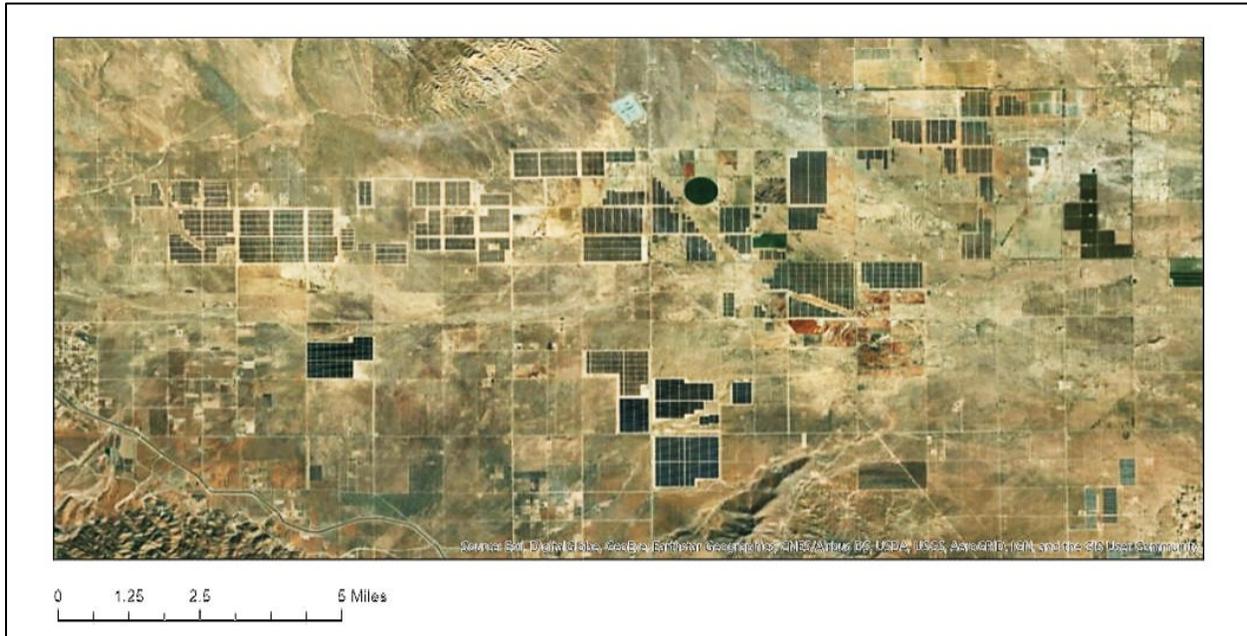
### **Issue 1: Definition of "solar photovoltaic power generation facility"**

Under ORS 469.320(1), no "facility" may be constructed unless a site certificate has been issued for its site by the Council. Under ORS 469.300, a "facility" includes an "energy facility" together with any "related or supporting facilities." A "solar photovoltaic power generation facility" is an "energy facility" if it uses land in excess of the acreage thresholds set by ORS 469.300(11)(a)(D). The term "solar photovoltaic power generation facility" is not defined by statute.

A solar development project may consist of several arrays spread across multiple locations, may be developed in phases, and may later be split or combined with other projects according to customer needs. As shown below in Figure 1, when multiple projects are located in close

proximity to each other it may be difficult to determine if the projects should be viewed as separate and distinct facilities or as components of a single facility.

Figure 1: Multiple Solar Project in Antelope Valley, CA



The statute does not provide additional criteria for determining when proposed or existing solar projects are separate and distinct developments. The primary purpose of this rulemaking project is to establish a clear standard and process for the Council to make these determinations.

The Land Conservation and Development Commission (LCDC) has developed standards for determining when projects are considered to be components of a solar facility for the purposes of applying the acreage thresholds for when a goal exception is required under OAR 660-033-0130(38):

(f) “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 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.”

The acreage thresholds in ORS 469.300 were initially based on the LCDC rule. Given this shared history and purpose, the Council has directed staff to develop a definition that is consistent with the one above. To develop a rule which defines what constitutes a “solar photovoltaic power generation facility” under ORS 469.300, staff has identified several changes which may be needed to align the LCDC definition with the energy facility siting process. A draft proposed rule providing a definition, and a draft proposed procedural rule establishing a process for its implementation are included in **Attachment 1**.

Staff seeks the RACs input on the general approach provided in the draft proposed rules, the draft rule language, and on the specific changes related to the inclusion of related or supporting facilities (third sentence), the appropriateness of the tract and proximity criteria (fourth sentence), and the applicability of the exclusions for net metering and feed-in-tariff projects (final sentence) discussed below.

#### **Inclusion of related or supporting facilities**

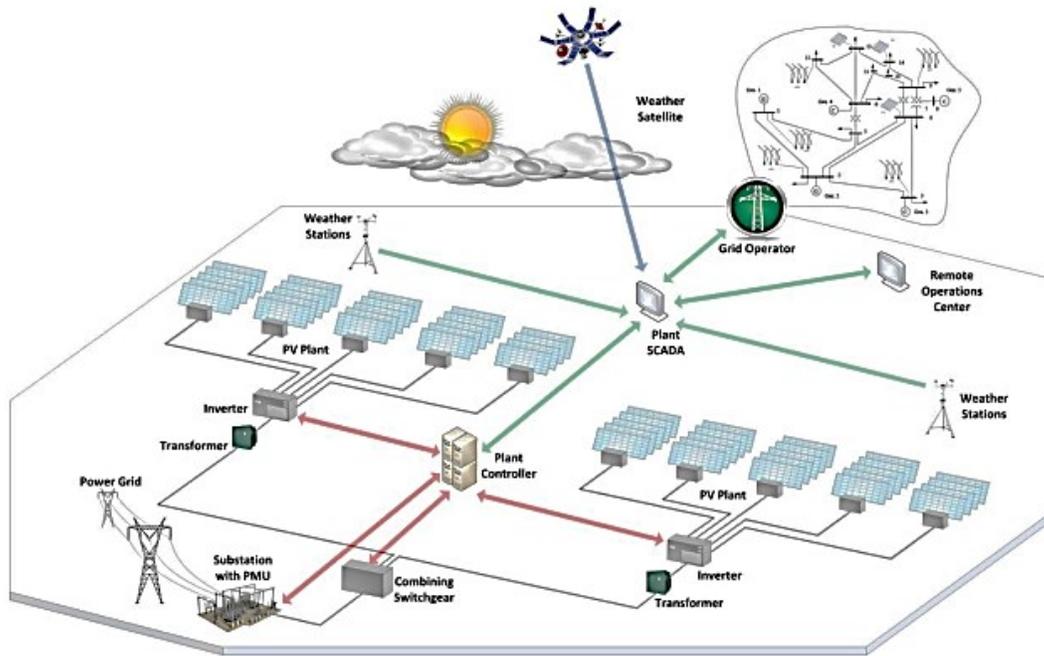
**Background:** The LCDC definition includes some facility components that would be considered “related or supporting facilities” under ORS 469.300. The LCDC definition provides:

“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.”

ORS 469.320 provides that no “facility” may be constructed or expanded unless a site certificate has been issued by the Council. A “facility” is an “*energy facility together with any related or supporting facilities*” under ORS 469.300 (emphasis added). Project components such as transmission lines, grid integration equipment, roads, offices, operation and maintenance buildings, and staging areas are considered to be “related or supporting facilities” under ORS 469.300(13) when they are proposed to be constructed or substantially modified in connection with the construction of an energy facility.<sup>1</sup>

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<sup>1</sup> ORS 469.300(13) “Related or supporting facilities” means any structure, proposed by the applicant, to be constructed or substantially modified in connection with the construction of an energy facility, including associated transmission lines, reservoirs, storage facilities, intake structure, road and rail access, pipelines, barge basins, office or public buildings, and commercial and industrial structures. “Related or supporting facilities” does not include



By statute, “related or supporting facilities” are considered to be components of a “facility” that are separate from the “energy facility” itself. Importantly, under ORS 469.320(5), related or supporting facilities are not required to be included in a site certificate when they are addressed in and subject to the site certificate for another energy facility.

Figure 2 illustrates the components of a typical utility scale solar PV facility. In a typical facility, photovoltaic modules (or panels) are mounted on metal racking systems supported by posts which are driven into the ground. The racking system may contain devices to track the sun across the sky. The modules are wired together in strings to form a solar array. Electrical cabling systems and combiner boxes connect arrays to inverters which convert the DC power generated by the modules into AC power. Transformers then step up the inverter AC output to a higher voltage (typically 34.5kV) that can be transmitted by a collection system to one or more combining switchgears or collector substations. Related and supporting facilities needed to store or transmit the output of the facility to the regional grid, or to support ongoing operations and maintenance of the facility such as transmission lines or service roads can also occupy large amounts of land.

Because the jurisdictional thresholds for solar facilities are based on acreage instead of generating capacity, whether or not the land used by these components is counted as land used

Figure 2. Components of a typical utility-scale solar PV facility. (Image from NREL)

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geothermal or underground gas storage reservoirs, production, injection or monitoring wells or wellhead equipment or pumps.

by the energy facility is relevant to the jurisdictional determination. Because the thresholds are intended to reflect the magnitude of land-use impacts associated with the facility, the Department and Council have historically included the land occupied by related or supporting facilities when calculating the total acres used by the solar facility. To continue this practice, the Council could specify that related or supporting facilities will be included as parts of the energy facility for the purpose of applying the acreage thresholds of ORS 469.300 similar to how the facilities are included in the LCDC definition. In the alternative, Council could exclude this land from the analysis and count only land used by components that are considered to be part of the energy facility.

Because related or supporting facilities are considered to be part of a solar facility under the LCDC definition, the tract and proximity criteria also apply to these components. This means that transmission lines, service roads, or interconnection equipment that is shared or co-located could also trigger a review. If the Council counts the lands used by related or supporting facilities as part of the energy facility, it should also specify whether any tract or proximity criteria it adopts will apply. Applying the criteria would be more consistent with the LCDC rule but could also discourage developers from co-locating transmission or interconnection facilities.

**Alternatives:** Because related and supporting facilities are considered to be separate from the energy facility under ORS chapter 469, staff recommends that the Council definition should not include the third sentence of the LCDC definition. In addition, Council should specify how related or supporting facilities will be considered in the jurisdictional determination process:

1. Exclude related or supporting facilities from consideration in jurisdictional determinations.
2. Specify that related or supporting facilities are included in total acreage used by the solar facility.
3. Specify that related or supporting facilities may trigger tract/proximity criteria for when a jurisdictional determination is needed.
4. Both 2 & 3.

**Staff Recommendation:** Staff recommends Alternative 2. This would allow Council to consider the full impact of land-used by a facility when making a jurisdictional determination without discouraging co-location of transmission infrastructure.

### **Tract and Proximity Criteria**

**Background:** The LCDC definition contains two criteria for determining when projects are considered to be a single facility for the purpose of determining if a goal exception is required:

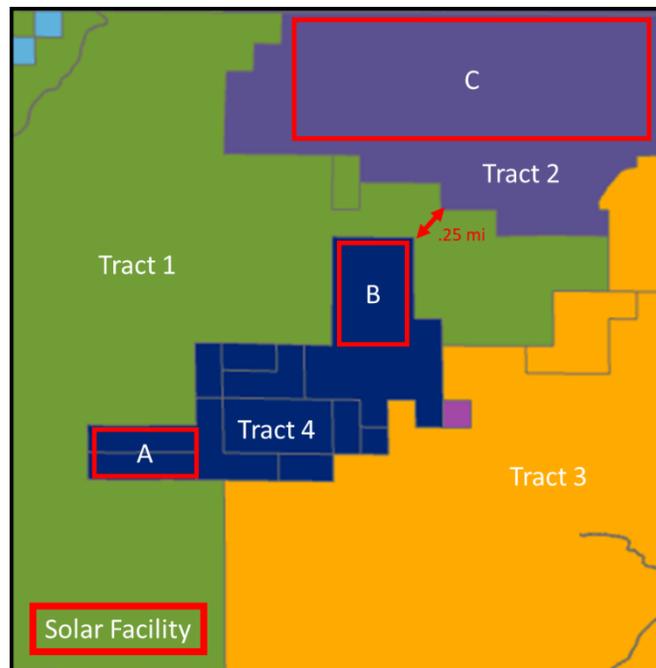
“For purposes of applying the acreage standards of this section, a photovoltaic solar power generation facility includes all existing and proposed facilities on a single tract, as

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.”

Under the *tract criterion* all facilities on a single tract (i.e. contiguous parcels or lots under the same ownership) are considered to be components of a single facility. Under the *proximity criterion*, all facilities on tracts with fewer than 1320 feet of separation are considered to be components of a single facility if they are determined to be owned by or affiliated with the same company or person.

In Figure 3 shown below, Solar Array A & B would be considered to be a solar facility regardless of ownership because they are proposed to be developed on the same tract. Solar Array C would also be included if it shared common ownership with A or B because it is proposed to be developed on a tract with less than 1320 feet of separation.

Figure 3. Illustration of Tract and Proximity Criteria



The Council could adopt one or both of the criteria in its rule or it could alter the criteria to better fit the siting process. It is not clear how applicable the tract criterion could be in the siting process, given the large scale of energy facilities. In addition, under the tract criterion, projects sited on a single tract are considered to be a single facility even if the projects are not owned by the same person. Several stakeholders raised concerns that a rule which could require unaffiliated companies to share a site certificate would be difficult to implement and may not be practicable from a business perspective.

Applying a proximity criterion may be more appropriate; however, some changes may be appropriate. Amending the criteria to measure from a project boundary rather than the tract would eliminate the need for staff to analyze the underlying ownership of the land a facility is sited on and would be more consistent with the siting process. However, a rule that only considers projects within 1320 feet of a proposed or expanded facility may not be a meaningful standard since it would be easily avoidable. Because fenced solar projects may be impermeable to wildlife, establishing a review distance that would allow wildlife movement between projects (e.g. 1 km) could be appropriate. Considering the scale of solar facilities which are considered to be energy facilities, a larger distance may be appropriate. For example, the PUC uses a five-mile radius for combining community solar projects which exhibit characteristics of a single development. Another distance, such as one or two miles between solar facilities, may be sufficient to identify projects that are not separate and distinct.

**Alternatives:**

1. Adopt LCDC Tract Criteria
2. Adopt proximity criterion based on property or project boundaries:
  - a. 1320 feet of separation
  - b. 2 miles of separation
  - c. 5 miles of separation
  - d. other
3. Both 1 & 2.
4. Use other criteria to determine when review is needed.

**Recommendation:** Staff recommends alternative 2; however, additional input is needed to determine the appropriate distance for a Council proximity criterion.

**Net metering and feed-in tariffs**

**Background:** The LCDC definition specifies that “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.”

Net-metering facilities are limited to two megawatts or less and feed-in-tariff projects are limited to 500 kilowatts.<sup>2</sup> There is no exception for net-metering projects or feed-in-tariff projects provided in ORS chapter 469; however, because of the small size of these types of projects it is unlikely that they would use land in excess of the thresholds for council jurisdiction.

**Alternatives:**

1. Adopt exclusion for net-metering and feed-in-tariff projects in rule.

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<sup>2</sup> OAR 860-039-0010 and ORS 757.365(1).

2. Do not adopt exclusion for net-metering and feed-in-tariff projects in rule.

**Recommendation:** Staff recommends Alternative 2.

**Issue 2: Factors to be considered in jurisdictional determination**

**Background:** The Council directed staff to develop a rule which used the LCDC definition as a basis for determining when jurisdictional review is needed, but specified that the actual jurisdictional determination should use a multi-factorial approach similar to the 15 Questions developed for Wind Facilities:

1. What company is the legal owner of the proposed project? Is that company related to the owner of the nearby wind energy project? For example, are the companies related through a parent corporation?
2. How close are the two projects geographically?
3. Is any part of the site of the proposed project included within the site of another wind project?
4. Would the proposed project share any transmission infrastructure with the nearby wind project? For the purpose of this question, “transmission infrastructure” means related or supporting collector lines or other transmission lines or equipment associated with a wind project to the point of connection with the regional transmission system (the “grid”).
5. Would the proposed project share any related or supporting facilities with the nearby wind energy project (for example, access roads, substations, O&M structures, perimeter fencing, water supply or discharge lines, storage areas, parking areas, etc.)?
6. Would the proposed project be operated from a separate control room? Would the control equipment (central computers) for the proposed project be located in the same building as the control equipment for the nearby wind energy project?
7. Would power output dispatching decisions for the proposed project be made independent of such decisions for the nearby wind energy project? Would these decisions be made by separate personnel?
8. Would operational decisions (such as maintenance, routine inspections, fire protection agreements with local authorities, weed control, etc.) for the proposed project be made independent of such operational decision for the nearby wind energy project? Would separate personnel be responsible for making those decisions?
9. Would the proposed project have separate operations or maintenance staff or would operations and maintenance staff be shared with the nearby wind energy project?
10. Would the power output from the proposed project be sold into the same market as the power output from the nearby wind energy project? In what way would the markets differ?
11. Would the marketing of the power output from the proposed project be done independent of marketing for the nearby wind energy project?
12. Would contracts for the sale of the power output from the proposed project be separate from the contracts for sale of power output from the nearby wind energy

project? Would there be any aggregated sales of power output from the proposed project with power output from the nearby project?

13. Would the financing for the proposed project be separate from the financing for the nearby project?
14. Would contracts for transmission of the output from the proposed project be separate from contracts for transmission of the output from the nearby wind energy project?
15. What other information would support a conclusion that the proposed project would be a separate wind energy project and not an expansion of a nearby wind energy project? In what other ways would the projects be operated or otherwise treated as separate projects?

Because the LCDC definition is primarily concerned with ownership and proximity, it may not be necessary to include the first three questions. Based on conversations with the RAC, it may be possible to consolidate the remaining questions into four broad categories: shared related or supporting facilities (4-5), joint operations (6-9, 13), marketing and sale of power (10-12), and transmission and interconnection agreements (14). Based on feedback from the RAC, the Council may also wish to consider the operational or permitting status of the facilities in a determination.

**Alternatives:**

1. Do not specify factors by rule
2. Adopt factors based on broad categories discussed by the 15 questions
3. Adopt other factors.

**Recommendation:** Staff recommends Council adopt factors based on 15 questions, consistent with Alternative 2.

**Issue 3: Process for jurisdictional determinations**

**Background:** In addition to creating a standard for when and how the Council will make jurisdictional determinations, it could adopt a procedural rule to explain how the determinations will be made. The Council could develop a new process, or it could clarify how an existing process could be applied.

The Council has previously used the declaratory ruling process described in ORS 183.410 and OAR 137-002 to consider jurisdictional issues. This process allows for an agency to provide a binding ruling on the applicability of any statute or rule enforceable by the agency based on a particular set of facts. The process described in OAR 137-002 allows interested parties an opportunity to submit arguments and have a hearing without undergoing the full Contested Case process. The process also provides Council the discretion to issue a ruling or not, so the Council could decide not to pursue a ruling if it determines that the facts are not clear, or the issue is moot.

The declaratory ruling process is generally shorter than a full contested case proceeding, but it can still be time intensive. In addition, the process is only appropriate for circumstances where

the application of law is at question, not when there is a disagreement about facts. To address these issues, the Council could develop a more abbreviated process to issue an order based on findings or recommendations presented by the Department. It could also delegate the initial decision to the Department, similar to the process for Amendment Determination Requests. Such a process would allow determinations to be made quickly, but the decisions could potentially be subject to the Contested Case process.

Because the declaratory ruling process and ability to issue contested case orders are already available to the Council without rulemaking, the Council could also proceed without a specific process for making jurisdictional determinations. This would allow more flexibility in how the Council and the department approach jurisdictional issues but may not provide the clarity or consistency of a specific process.

**Alternatives:**

1. Adopt rules explaining the applicability of the declaratory ruling process to jurisdictional determinations.
2. Adopt new procedure for making jurisdictional determinations based on Amendment Determination or other Council process
3. Adopt rules for providing specific process for Council to seek civil enforcement.
4. Adopt no procedural rules and rely on existing processes.

**Recommendation:** Staff recommends Alternative 1 because it is an existing process that allows for public participation without the need for a full Contested Case.

**Issue 4: Applicability of rule to existing facilities**

**Background:** ORS 469.320 provides the Council with siting jurisdiction over any facilities that are constructed or expanded in Oregon. As such, a new definition could be applied to any proposed or existing facilities. While staff is not aware of any existing facilities that would trigger jurisdictional review under the proposed rule, it may be appropriate to provide some additional regulatory certainty to projects which were approved under the county process before the effective date of the rule.

**Alternatives:**

1. Adopt rule that applies new standard and process to any existing and proposed facilities
2. Adopt rule that only applies to facilities or facility modifications that have not been approved under local process on the effective date of the rule.

**Recommendation:** Staff recommends Alternative 2.

**Issue 5: Implementation of HB 2329**

**Background:** 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.

The current OAR 345-020-0006(3) and 345-021-0000(2) allow a person to submit a Notice of Intent 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 2329 (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.”<sup>3</sup>*

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

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<sup>3</sup> 2019 Oregon Laws, ch. 650, s. 2.

associated transmission lines and any non-jurisdictional solar photovoltaic power generation facility.

**Alternatives:** Because the current rules are inconsistent with the new law, staff recommends that some action is needed; however, Council may amend the rules in a number of ways that would be consistent with the new law:

1. Amend the current sections of rule that implement ORS 469.320(8) to reference statute.
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).

**Recommendation:** Staff recommends Alternative 3, to establish that all facilities for which an election has been made will be treated the same as other energy facilities.

### **Summary and Next Steps**

Staff proposes Council adopt a definition of “solar photovoltaic power generation facility” that provides when multiple solar projects may be considered to be components of a larger facility, and a procedural rule that explains how the Council will determine if projects that meet the criteria of the definition are components of a larger facility or are separate and independent facilities. In addition, Staff recommends Council amend the definition of energy facility to include facilities that may elect to defer jurisdiction to the Council under ORS 469.320(8) (2019).

Staff seeks the RACs input on these proposed rule changes and the attached draft rule language. In addition, staff requests the committee’s recommendations whether the rule changes would have a fiscal impact, what the extent of that impact could be and whether the rule could have a significant adverse impact on small businesses.

After considering input provided by the RAC, staff will present draft proposed rules to the Council. If Council approves the proposed rules, staff will initiate the formal rulemaking process by issuing a Notice of Proposed Rulemaking and soliciting comments from the public.