



Oregon

Kate Brown, Governor



Date: Feb. 27, 2019
To: EFSC Solar PV Rulemaking Advisory Committee (RAC) Members
From: Christopher M. Clark, Rules Coordinator
Subject: RAC Meeting #4 Staff Report

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Purpose of Meeting

The purpose of this meeting is to discuss what factors could be analyzed when determining what constitutes a “solar photovoltaic power generation facility,” as that term is used in the definition of “energy facility” under ORS 469.300(11); and whether or not administrative rules, such as a definition of “solar photovoltaic power generation facility,” would improve the clarity, consistency, and predictability of solar facility permitting jurisdiction.

EFSC jurisdiction under ORS 469.300(11)

The Energy Facility Siting Council (EFSC) has jurisdiction over facilities that meet the statutory definition of “energy facility” under ORS 469.300(11)(a).¹ A solar photovoltaic power generation facility may be an “energy facility” based on the amount and type of land upon which it is proposed to be located. Under ORS 469.300(11)(a)(D), a solar photovoltaic power generation facility is an “energy facility” if it uses more than:

- “(i) 100 acres located on high-value farmland as defined in ORS 195.300;
- (ii) 100 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) 320 acres located on any other land.”

A solar photovoltaic power generating facility that does not meet the definition of “energy facility” is subject to review and approval by the city or county in which the facility is proposed to be located.

¹ Under ORS 469.300(14) and (24), a “facility” includes the energy facility together with related or supporting facilities “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 structures, road and rail access, pipelines, barge basins, office or public buildings, and commercial and industrial structures.”

Characteristics of solar photovoltaic power generating facilities

A solar photovoltaic power generating facility consists of several components. Generally, power-generating photovoltaic cells are connected together in modules, more commonly known as solar panels. The panels are mounted in rows on either a stationary fixed-tilt racking system, or a racking system which tracks the sun as it moves across the sky. Multiple panels are connected together to produce a string. Multiple strings of panels are then connected together in an array to produce the required direct current power output. A solar photovoltaic power generation facility may consist of one or more arrays at a single location, or multiple arrays spread across several different locations.

Inverters convert the direct current electricity produced by the arrays into alternate current electricity that is usable by the grid. Collecting substations and step-up transformers take output from the inverters to the voltage required for transmission to the grid. Related and supporting facilities such as transmission lines, substations, and point of interconnection breaker systems, disconnects, and metering systems transmit the power from the facility to the grid. Additional related facilities, such as battery storage facilities, access roads, and operations and maintenance structures, may also be included as part of the facility.

Several characteristics of solar facilities complicate application of the acreage thresholds under ORS 469.300(11)(a)(D) to solar photovoltaic power generation facilities. In particular, a solar facility may consist of several arrays that are spread across different locations, may be developed in phases, and may be split or combined according to customer needs. Due to these characteristics, some analysis may be required to determine if multiple arrays are separate facilities, or if they are all parts of the same facility. This analysis could be used to determine what acres should be considered when determining if a solar photovoltaic power generation facility is an “energy facility” that is subject to EFSC jurisdiction under ORS 469.300(11).

Examples of analyses in other contexts

There are examples of similar analyses in other contexts. EFSC developed a list of 15 Questions related to project proximity, ownership, infrastructure, operation, financing, and business contracting, to help determine whether wind projects were separate facilities or should be considered to be a single energy facility. 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.

Outside of the EFSC process, 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. 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:

“* * * 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.* * *”

Effectively, this definition requires all photovoltaic solar power generation facilities on a single tract, and all facilities under common ownership that are sited on tracts of land within a quarter mile of one another to be treated as parts of a single facility. Although LCDC rules do not govern EFSC jurisdiction, both local and EFSC jurisdictional projects are subject to Oregon land-use law, including the statewide planning goals and rules adopted by the Land Conservation and Development Commission to carry them out.

Under OAR 860-088-0070(2), the Public Utilities Commission (PUC) also identifies circumstances where two or more solar projects may “exhibit characteristics of a single development.” These include a common ownership structure, an umbrella sale arrangement, revenue-sharing arrangements, or common debt or equity financing.

While some aspects of these rules may not be appropriate for use by EFSC, they may be useful as models for EFSC’s analysis.

Conclusion

A solar photovoltaic power generation facility may be an “energy facility” as defined at ORS 469.300(11)(a)(D) based on the number of acres of land it uses, and the type of land upon which it is located. Because a solar photovoltaic power generation facility may be spread across different locations, may be developed in phases, and may be split or combined according to customer needs, some analysis may be required to determine if multiple arrays are separate facilities, or if they are all parts of one solar photovoltaic power generation facility. EFSC’s “15 Questions”, LCDC’s solar rules, and the PUC rules offer several potential factors and approaches that could assist in this analysis, including, but not limited to: proximity, ownership, infrastructure, and operations.

The Department would appreciate RAC member’s input on the appropriateness of these factors, when they may suggest that arrays are part of the same solar photovoltaic power generation facility, and what other factors could be considered when determining whether or not a solar photovoltaic power generation facility is an “energy facility” under ORS 469.300(11)(a)(D). In addition, we would appreciate input on whether or not administrative rules, such as a definition of “solar photovoltaic power generation facility” or criteria for applying the acreage amounts in ORS 469.300.11(a)(D), would improve the clarity, consistency, and predictability of solar facility permitting jurisdiction.

Following this meeting, staff will compile notes for EFSC review and evaluate next steps for this rulemaking project. If staff intends to recommend proposed rules to EFSC, staff will schedule an additional RAC meeting to discuss draft rule language prior to its consideration by EFSC.