

**PUBLIC UTILITY COMMISSION OF OREGON  
STAFF REPORT  
PUBLIC MEETING DATE: December 18, 2017**

REGULAR  X  CONSENT \_\_\_\_\_ EFFECTIVE DATE \_\_\_\_\_ N/A \_\_\_\_\_

DATE: November 15, 2017

TO: Public Utility Commission

FROM: Nadine Hanhan *NRH*  
*F*

THROUGH: Jason Eisdorfer and JP Batmale *JP for JC*

SUBJECT: OREGON PUBLIC UTILITY COMMISSION: (Docket No. AR 610)  
Request for approval to open formal rulemaking for Solar Capacity Standard repeal.

**STAFF RECOMMENDATION:**

Open a formal rulemaking to amend OAR 860-084-0000(1) and 860-084-0070, and repeal OAR 860-084-0020 through 860-084-0060, 860-084-0080, and 860-084-0120(3).

**DISCUSSION:**

Issue

Chapter 28 Oregon Laws 2016 (SB 1547) repealed ORS 757.370, the Minimum Solar Energy Capacity Standard for Electric Companies ("Solar Capacity Standard"). SB 1547 also amended ORS 757.375 to reflect the repeal of ORS 757.370. Staff is requesting a formal rulemaking to amend the rules to reflect these changes by amending OAR 860-084-0000(1), and 860-084-0070, and repealing OAR 860-084-0020 through 860-084-0060, 860-084-0080, and 860-084-0120(3).

Applicable Law

ORS 757.370 established the Solar Capacity Standard, which mandated all electric companies in the state of Oregon to build, in proportion to their percentage of retail sales,<sup>1</sup> at least 20 megawatts (MW) of solar photovoltaic generating nameplate

<sup>1</sup> Retail sales in 2008.

capacity.<sup>2</sup> Qualifying systems under the standard were required to be at least 500 kilowatts (kW), and no single project could be greater than five MW.

ORS 757.375 requires a "double counting" of each kilowatt-hour (kWh) of electricity produced from a qualifying system that first becomes operational before January 1, 2016 and has a nameplate capacity of between 500 kW and five MW of alternating current for purposes of RPS compliance.

### Analysis

To maintain consistency with Chapter 28, Oregon Laws 2016, Staff is requesting that the Commission open a formal rulemaking that would address the repeal of the OPUC administrative rules that govern the Solar Capacity Standard. Staff is also requesting that the Commission amend the remaining division 84 rules as appropriate. Though SB 1547 affected a breadth of elements pertaining to the Renewable Portfolio Standard (RPS), in this phase of AR 610, Staff is proposing to address only the Oregon Legislature's repeal of Solar Capacity Standard and related amendment to ORS 757.375.

Staff will defer all other issues pertaining to the RPS rulemaking to other, later phases of this docket. Staff will request to open formal proceedings for other issues in AR 610 separately.

### Conclusion

To maintain consistency with Chapter 28 Oregon Laws 2016, Staff is requesting that the Commission open a formal rulemaking to repeal and amend, as discussed above, the OPUC administrative rules that govern the Solar Capacity Standard.

### **PROPOSED COMMISSION MOTION:**

Approve Staff's request to open a formal rulemaking to amend OAR 860-084-0000(1), and 860-084-0070, and repeal OAR 860-084-0020 through 860-084-0060, 860-084-0080, and 860-084-0120(3).

AR 610

---

<sup>2</sup> ORS 757.370.

Division 84  
SOLAR PHOTOVOLTAIC PROGRAMS

**RULE SUMMARY:** The changes to this rule reflect the repeal of the minimum solar energy capacity standard for electric companies (ORS 757.370).

**860-084-0000**

**Scope and Applicability of Solar Photovoltaic Programs**

(1) ~~OAR 860-084-0070 through 860-084-0080~~ ("the Solar Photovoltaic Capacity Standard") governs renewable energy certificates associated with the electricity produced by solar photovoltaic systems under the Solar Photovoltaic Capacity Standard credit towards compliance with renewable portfolio standard for electricity produced from solar photovoltaic energy systems. ~~implementation of programs requiring electric company installation of solar photovoltaic capacity.~~

(2) OAR 860-084-0100 through 860-084-0450 (the "Solar Photovoltaic Pilot Programs") govern implementation of pilot programs to demonstrate the use and effectiveness of volumetric incentive rates and payments for electricity delivered from solar photovoltaic energy systems.

(3) Upon request or its own motion, the Commission may waive any of the Division 084 rules for good cause shown. A request for waiver must be made in writing, unless otherwise allowed by the Commission.

**Statutory/Other Authority:** ORS 757.360 - 757.380

**Statutes/Other Implemented:** ORS 757.360 - 757.380

**History:**

PUC 6-2011, f. & cert. ef. 9-14-11

PUC 2-2010, f. & cert. ef. 6-1-10

**RULE SUMMARY:** The changes to this rule reflect the repeal of the minimum solar energy capacity standard for electric companies (ORS 757.370).

**860-084-0010**

**Definitions for Solar Photovoltaic ~~Capacity Standard and~~ Pilot Programs**

(1) "Contracted system" means an eligible system under contract in the solar photovoltaic pilot program associated with a single meter.

(2) "Electric company" has the meaning given that term in ORS 757.600.

(3) "Eligible consumer" means a retail electricity consumer receiving service at the property where the solar photovoltaic system will be installed.

(4) "Eligible energy" or "eligible generation" means the kilowatt-hours that may be paid at the volumetric incentive rate. For the net metering option of the pilot program, eligible energy is equal to the usage of the retail electricity consumer in the year that the energy is generated by the eligible system. In a given month, this eligible energy is equal to the actual usage of the retail electricity consumer for that month. For the bidding option of the pilot program, eligible energy equals actual generation, net of system requirements.

(5) "Eligible participant" or "participant" means an eligible consumer who has signed a contract with the electric company and is participating in the pilot program. A regulated utility is not an eligible participant in pilot programs.

(6) "Eligible system" means a qualifying system that meets the requirements of OAR 860-084-0120.

(7) "Equipment package" means a group of components connecting an electric generator with an electric distribution system and includes all interface equipment including switchgear, inverters, or other interface devices. An equipment package may include an integrated generator or electric production source.

(8) "Excess energy" or "excess generation" means the kilowatt-hours generated in excess of actual annual usage under the net metering option of the volumetric incentive rate pilot program. In a given month, excess energy means kilowatt-hours generated in excess of monthly usage.

(9) "IEEE standards" means the standards published in the 2003 edition of the Institute of Electrical and Electronics Engineers (IEEE) Standard 1547, titled "Interconnecting Distributed Resources with Electric Power Systems," approved by the IEEE SA Standards Board on June 12, 2003, and in the 2005 edition of the IEEE Standard 1547.1, titled "IEEE Standard Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems," approved by the IEEE SA Standards Board on June 9, 2005.

(10) "Installed System" means an eligible system that is completely built, has passed final electrical inspection by the local authority with jurisdiction, and is pending completion of utility work to connect it to the utility grid.

(11) "Nameplate capacity" means the maximum rated output of a solar photovoltaic system, measured at an irradiance level of 1000 W/ m<sup>2</sup>, with reference air mass 1.5 solar spectral irradiance distribution and cell or module junction temperature of 25°C.

(12) "On-line" means that the solar photovoltaic system is installed and providing power to the electric company's electrical system or to serve the load of the retail electricity consumer.

(13) "Payable generation" is the eligible generation for each month plus accrued excess generation, up to the actual monthly usage. Excess generation accrues monthly.

(14) "Pilot capacity limit" means the maximum installed capacity that each electric company may contract during the pilot program.

(15) "Pilot year" means each twelve-month period of the solar photovoltaic pilot program beginning on April 1 and ending on March 31.

(16) "Qualifying assignee" or "assignee" means a person to whom a retail electricity consumer may assign volumetric incentive rate payments under the standard contract. An electric company or its affiliate or any other regulated utility is not a qualifying assignee. Qualifying assignees include, but are not limited to:

(a) A lender providing up-front financing to a retail electricity consumer;

(b) A company or individual who enters into a financial agreement with a retail electricity consumer to own and operate a solar photovoltaic system on behalf of the retail electricity consumer in return for compensation;

(c) A company or individual who contracts with the retail electricity consumer to locate a solar photovoltaic system on property owned by the retail electricity consumer; or

(d) Any party identified by the retail electricity consumer to receive payments that the electric company is obligated to pay to the retail electricity consumer.

(17) "Qualifying third party" or "third party" means a party who is the owner or operator of a solar photovoltaic system installed under the pilot program but who is not the retail electricity consumer at that location. An electric company is not a qualifying third party under the pilot programs.

(18) "Reservation start date" means the date the retail electricity consumer is notified of securing capacity through a capacity reservation process and of the start and expiration dates for that capacity reservation. The reservation start date initiates the time to interconnection agreement.

(19) "Retail electricity consumer" means a consumer who is a direct customer of the electric company and is the end user of electricity for specific purposes, such as heating, lighting, or operating equipment. Retail electricity consumers include direct access consumers.

(20) "System requirements" means the input electricity required to operate the solar photovoltaic system, sometimes referred to as the parasitic load.

(21) "Time to interconnection agreement" means the time between the reservation start date and the date an eligible participant signs an interconnection agreement.

(22) "Volumetric incentive payments" or "payments" mean the monthly amount that an electric company pays to an eligible participant or assignee in the solar photovoltaic pilot program for payable energy generated by a contracted system.

(23) "Volumetric incentive rate" means the rate per kilowatt-hour paid by an electric company to a retail electricity consumer or assignee for payable generation.

**Statutory/Other Authority:** ORS 757.360 - 757.380

**Statutes/Other Implemented:** ORS 757.360 - 757.380

**History:**

PUC 7-2011, f. & cert. ef. 9-30-11

PUC 2-2010, f. & cert. ef. 6-1-10

**RULE SUMMARY: The repeal of this rule reflects the repeal of the minimum solar energy capacity standard for electric companies (ORS 757.370).**

**860-084-0020**

**Solar Photovoltaic Capacity Standard**

~~By January 1, 2020, each electric company must own or contract to purchase the capacity and output of qualifying solar photovoltaic systems to meet and maintain the following minimum solar photovoltaic capacity standards:~~

~~(1) Portland General Electric: 10.9 megawatts~~

~~(2) Pacific Power: 8.7 megawatts~~

~~(3) Idaho Power Company: 0.5 megawatts.~~

~~**Statutory/Other Authority:** ORS 757.360 - 757.380~~

~~**Statutes/Other Implemented:** ORS 757.360 - 757.380~~

~~**History:**~~

PUC 7-2011, f. & cert. ef. 9-30-11  
PUC 2-2010, f. & cert. ef. 6-1-10

**RULE SUMMARY:** The repeal of this rule reflects the repeal of the minimum solar energy capacity standard for electric companies (ORS 757.370).

**860-084-0030**

**Qualifying Systems under the Solar Photovoltaic Capacity Standard**

Individual solar photovoltaic systems used to comply with the solar photovoltaic capacity standards in OAR 860-084-0020 must have a nameplate generating capacity greater than or equal to 500 kilowatts and less than or equal to 5 megawatts.

**Statutory/Other Authority:** ORS 757.360–757.380

**Statutes/Other Implemented:** ORS 757.360–757.380

**History:**

PUC 7-2011, f. & cert. ef. 9-30-11

PUC 2-2010, f. & cert. ef. 6-1-10

**RULE SUMMARY:** The repeal of this rule reflects the repeal of the minimum solar energy capacity standard for electric companies (ORS 757.370).

**860-084-0040**

**Measurement of Capacity under the Solar Photovoltaic Capacity Standard**

(1) The capacity of solar photovoltaic systems used to satisfy the requirements of OAR 860-084-0020 must be measured on the alternating current side of the system's inverter.

(2) Each electric company must convert nameplate capacity ratings reported by manufacturers in terms of direct current watts under standard test conditions to an alternating current rating in watts to account for inverter and other system component losses and to account for the effect of normal operating temperature on solar module output. This conversion will be calculated as 85 percent of the manufacturer's nameplate rating.

**Statutory/Other Authority:** ORS 757.360–757.380

**Statutes/Other Implemented:** ORS 757.360–757.380

**History:**

PUC 7-2011, f. & cert. ef. 9-30-11

PUC 2-2010, f. & cert. ef. 6-1-10

**RULE SUMMARY:** The repeal of this rule reflects the repeal of the minimum solar energy capacity standard for electric companies (ORS 757.370).

**860-084-0050**

**Compliance Report**

(1) By February 1, 2020, each electric company must file a report with the Commission demonstrating compliance, or explaining in detail any failure to comply, with the solar photovoltaic capacity standards in OAR 860-084-0020.

~~(2) The report required in section (1) of this rule must include the following information associated with each solar photovoltaic system:~~

~~(a) The name of the facility;~~

~~(b) The location of the facility;~~

~~(c) The in-service date of the facility;~~

~~(d) The manufacturer's nameplate capacity rating;~~

~~(e) The electric company's capacity rating on the alternating current side of the system's inverter;~~

~~(f) The execution date of any associated power purchase agreement; and~~

~~(g) The contracted capacity and output delivery period of any associated power purchase agreement.~~

**Statutory/Other Authority:** ~~ORS 757.360–757.380~~

**Statutes/Other Implemented:** ~~ORS 757.360–757.380~~

**History:**

~~PUC 7-2011, f. & cert. of. 9-30-11~~

~~PUC 2-2010, f. & cert. of. 6-1-10~~

**RULE SUMMARY:** The repeal of this rule reflects the repeal of the minimum solar energy capacity standard for electric companies (ORS 757.370).

**860-084-0060**

**Cost Recovery**

~~An electric company may request recovery of its prudently incurred costs to comply with the solar photovoltaic capacity standard specified in OAR 860-084-0020 in an automatic adjustment clause proceeding filed at the Commission pursuant to ORS 469A.120.~~

**Statutory/Other Authority:** ~~ORS 757.360–757.380~~

**Statutes/Other Implemented:** ~~ORS 757.360–757.380~~

**History:**

~~PUC 2-2010, f. & cert. of. 6-1-10~~

**RULE SUMMARY:** The changes to this rule reflect the repeal of the minimum solar energy capacity standard for electric companies (ORS 757.370).

**860-084-0070**

**Renewable Energy Certificates and Compliance with the Renewable Portfolio Standards**

(1) Each renewable energy certificate associated with the electricity produced by solar photovoltaic systems that is physically located in this state ~~used to meet the minimum solar photovoltaic capacity standards in OAR 860-084-0020~~ may be used to comply with the renewable portfolio standards established under ORS 469A.005 through 469A.120.

(2) ~~Each renewable energy certificate associated with the electricity produced by solar photovoltaic systems may be counted twice to comply with the renewable portfolio standards established under ORS 469A.005 through 469A.120, if the solar photovoltaic systems~~ For each kilowatt-hour of electricity

produced from a qualifying solar photovoltaic energy system that first becomes operational before January 1, 2016 and has a nameplate capacity between 500 kilowatts and five megawatts of alternating current, the electric company shall may be credited with two kilowatt-hours of qualifying electricity toward the electric company's compliance with the renewable portfolio standard, up to a maximum of 20 megawatts of capacity.:

~~(a) First become operational before January 1, 2016;~~

~~(b) Are installed in Oregon; and~~

~~(c) Meet the solar photovoltaic capacity standards in OAR 860-084-0020.~~

(3) Renewable energy certificates used under sections (1) and (2) of this rule must comply with the standards in OAR 860-083-0050.

**Statutory/Other Authority:** ORS 757.360 - 757.380

**Statutes/Other Implemented:** ORS 757.360 - 757.380

**History:**

PUC 7-2011, f. & cert. ef. 9-30-11

PUC 2-2010, f. & cert. ef. 6-1-10

**RULE SUMMARY: The repeal of this rule reflects the repeal of the minimum solar energy capacity standard for electric companies (ORS 757.370).**

**860-084-0080**

**Implementation Plans**

~~Each electric company must incorporate its plan to achieve, or exceed, and maintain the minimum solar photovoltaic capacity standards specified in OAR 860-084-0020 into its renewable portfolio standard implementation plans filed pursuant to 860-083-0400.~~

~~**Statutory/Other Authority:** ORS 757.360 - 757.380~~

~~**Statutes/Other Implemented:** ORS 757.360 - 757.380~~

~~**History:**~~

~~PUC 2-2010, f. & cert. ef. 6-1-10~~

**RULE SUMMARY: The changes to this rule reflect the repeal of the minimum solar energy capacity standard for electric companies (ORS 757.370).**

**860-084-0120**

**Systems Eligible for Enrollment in Pilot Programs**

(1) Individual solar photovoltaic systems eligible for the Solar Photovoltaic Pilot Programs must have a nameplate generating capacity less than or equal to 500 kilowatts and must be:

(a) In compliance with the siting, design, interconnection, installation, and electric output standards and codes required by the laws of Oregon;

(b) Installed with meters or other devices to monitor and measure the quantity of energy generated;

(c) Permanently installed in the State of Oregon by a retail electricity consumer of the electric company;

(d) Installed in the service territory of the electric company;

(e) First operational and on-line after the launch of the pilot programs;



(f) Financed without expenditures under ORS 757.612 (3)(b)(B) or tax credits under 469.160 or 469.185 through 469.225;

(g) Certified by the residential electric consumer as constructed from new components (modules, inverter, batteries, mounting hardware, etc.); and

(h) Compliant with Commission quality and reliability requirements for solar photovoltaic systems and system installation.

(2) Systems uninstalled before the end of the contract term are not eligible for subsequent volumetric incentive rates, other feed-in tariffs, or pilot programs during the remainder of the original contract term. These systems cannot be reinstalled for the purposes of entering a new contract under any solar photovoltaic pilot program, volumetric incentive or other feed-in tariff program in the service territory of any electric company in the State of Oregon during the original contract term of the system, except that a system may be uninstalled and reinstalled at another location under the same contract under the conditions in OAR 860-084-0280.

~~(3) Retail electricity consumers submitting applications for a 500 kilowatt project are not eligible to reserve capacity in the solar photovoltaic pilot program if the same project is also competing for a purchased power agreement under the solar capacity standard in OAR 860-084-0020.~~

**Statutory/Other Authority:** ORS 757.360 - 757.380

**Statutes/Other Implemented:** ORS 757.360 - 757.380

**History:** PUC 7-2011, f. & cert. ef. 9-30-11; PUC 2-2010, f. & cert. ef. 6-1-10