

## PROPOSED RULES

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### DEPARTMENT OF ENERGY DIVISION 160

#### ESTABLISH A RENEWABLE ENERGY CERTIFICATE SYSTEM FOR THE OREGON RENEWABLE PORTFOLIO STANDARD (RPS)

#### 330-160-0015

##### Definitions

For the purposes of Oregon Administrative Rules, chapter 330, division 160, the following definitions apply unless the context requires otherwise:

- (1) "Banked Renewable Energy Certificate" has the meaning in ORS 469A.005.
- (2) "Bundled Renewable Energy Certificate" has the meaning in ORS 469A.005.
- (3) "Compliance Year" has the meaning in ORS 469A.005.
- (4) "Department" means the Oregon Department of Energy.
- (5) "Director" means the Director of the Oregon Department of Energy.
- (6) "Electricity Service Supplier" has the meaning in ORS 469A.005.
- (7) "Electric Utility" has the meaning in ORS 469A.005.
- (8) "Federal Columbia River Power System" (FCRPS) means the transmission system constructed and operated by Bonneville Power Administration (BPA) and the hydroelectric dams constructed and operated by the U.S. Army Corps of Engineers and the Bureau of Reclamation in Oregon, Washington, Montana and Idaho.
- (9) "Generator representative" means an electricity generating facility's owner, operator or WREGIS account holder.
- (10) "High Water Mark Contract" means a power sales contract between a consumer-owned utility and BPA that contains a contract high water mark, and under which the utility purchases power from BPA at rates established by BPA in accordance with the tiered rate methodology.
- (11) "Joint Operating Entity" means an entity that was lawfully organized under State law as a public body or cooperative prior to September 22, 2000, and is formed by and whose members or participants are two or more public bodies or cooperatives, each of which was a customer of BPA on or before January 1, 1999.

(12) “Multiple-fuel facility” means a facility that is capable of generating electricity using more than one type of fuel. A facility that uses fossil fuel for generator start-up but otherwise uses a single eligible resource and is not required to register in WREGIS as a multi-fuel generating unit, as defined by WREGIS, is not a multiple-fuel facility.

(13) “Oregon’s share” as used in ORS 469A.020(3), means the portion of Federal Columbia River Power System generation attributable to the Oregon load of hydroelectric efficiency upgrades that BPA provides to:

(a) Each consumer-owned utility serving load located in Oregon, pursuant to a High Water Mark Contract;

(b) Each Joint Operating Entity with retail utility members serving load located in Oregon, pursuant to a High Water Mark Contract; and

(c) Each investor-owned utility participating in the Residential Exchange Program that serves load located in Oregon.

(14) “Qualifying Electricity” has the meaning in ORS 469A.005.

**(15) “Qualifying thermal energy” means thermal energy that meets the requirements of OAR 330-160-0080.**

~~(1516)~~ “Renewable Energy Certificate” (REC or Certificate) means a unique representation of the environmental, economic, and social benefits associated with the generation of electricity from renewable energy sources that produce Qualifying Electricity. One Certificate is created in association with the generation of one MegaWatt-hour (MWh) of Qualifying Electricity. While a Certificate is always directly associated with the generation of one MWh of electricity, transactions for Certificates may be conducted independently of transactions for the associated electricity.

~~(1617)~~ “Renewable Energy Source” has the meaning in ORS 469A.005.

~~(1718)~~ “Residential Exchange Program” means the arrangement, based on section 5(c) of the Pacific Northwest Electric Power Planning and Conservation Act, whereby regional utilities sell BPA an amount of power equal to their residential and small-farm load at their average system cost in exchange for federal electric power, and pass on the benefits to their residential and small-farm customers in the form of a bill credit.

~~(1819)~~ “RPS” means the Oregon renewable portfolio standard as established in ORS 469A.

**(20) “Secondary purpose” means an end use for thermal energy that:**

**(a) Is for heating, cooling, humidity control, or mechanical or chemical work; and**

**(b) For which fuel or electricity would otherwise be consumed.**

**(21) “Station service” means the energy that is used to operate an electric or thermal generating plant. It includes energy consumed for plant lighting, power, and auxiliary facilities in support of the electricity generation system. Station service includes thermal energy used to process the facility’s fuel.**

**(1922)** “Stranded electricity” means qualifying electricity that:

(a) Was generated between January 1, 2007, and March 4, 2011, by a generating unit that was registered in WREGIS on or before March 4, 2011; and

(b) Was reported to the Department on or before March 11, 2011.

**(23) “Stranded thermal energy” means qualifying thermal energy that:**

**(a) Was generated between March 8, 2016 and the effective date of this rule;**

**(b) Was generated by a facility that was registered for thermal generation in WREGIS on or before August 1, 2017;**

**(c) Was generated by a facility for which an application for certification as Oregon RPS-eligible was submitted to the Department on or before August 1, 2017; and**

**(d) Was reported to WREGIS no later than six months after the application for certification as Oregon RPS-eligible was approved by the Department.**

**(24) “Thermal Renewable Energy Certificate” (T-REC) means a REC created in association with the generation of 3,412,000 British thermal units of qualifying thermal energy, which is equivalent to one REC created in association with the generation of one megawatt hour of Qualifying Electricity.**

**(2025)** “Unbundled Renewable Energy Certificate” has the meaning in ORS 469A.005.

**(2126)** “Vintage” means the month and year that qualifying electricity was created in accordance with WREGIS protocol.

**(2227)** “WREGIS” means the Western Renewable Energy Generation Information System, which is the renewable energy certificate tracking and reporting system established by the California Energy Commission and the Western Governors’ Association and governed by the Western Electricity Coordinating Council for use by states and provinces throughout the western power interconnection.

Stat. Auth.: ORS 469A.130

Stats. Implemented: ORS 469A.130 - 469A.145

Hist.: DOE 6-2008, f. & cert. ef. 9-3-08; DOE 11-2010(Temp), f. & cert. ef. 8-31-10 thru 2-26-11; DOE 1-2011, f. & cert. ef. 2-22-11; DOE 2-2011, f. & cert. ef. 3-4-11; DOE 11-2012, f. & cert. ef. 11-14-12; DOE 1-2014, f. & cert. ef. 2-10-14

### 330-160-0030

#### Allowed Vintage of Renewable Energy Certificates

- (1) The system of renewable energy certificates established through this rule may be used to comply with or participate in the Oregon RPS through the use of Certificates with a vintage of January 2007 or later.
- (2) No renewable energy certificate that derives from the WREGIS renewable energy certificate system with a vintage before January 2007 will be eligible for compliance with the Oregon RPS.
- (3) Banked renewable energy certificates with a vintage of January 2007 or later, both bundled and unbundled, may be held for future use within the WREGIS renewable energy certificate system to comply with the Oregon RPS.
- (4) Generating facilities that produce qualifying electricity shall be eligible to receive certificates associated with generation beginning on January 1, 2007.
- (5) Renewable energy certificates created by WREGIS that are associated with stranded electricity or with stranded thermal energy may be used to comply with the Oregon RPS.

**(6) Generating facilities that meet the requirements of OAR 330-160-0080 and that produce qualifying thermal energy shall be eligible to receive T-RECs associated with generation on or after March 8, 2016.**

Stat. Auth.: ORS 469A.130

Stats. Implemented: ORS 469A.130

Hist.: DOE 6-2008, f. & cert. ef 9-3-08; DOE 2-2011, f. & cert. ef. 3-4-11; DOE 1-2014, f. & cert. ef. 2-10-14

### 330-160-0035

#### Application Process

- (1) To apply for certification by the Department that electricity or thermal energy from a generating facility qualifies for the Oregon RPS, the generator representative must submit to the Department a completed general application form and, for hydroelectric, hydro efficiency, hydrogen, biomass, ~~and~~ multiple-fuel facilities, and thermal energy the applicable supplemental form available on the Department's website. **Thermal energy applications must also include a thermal energy measurement plan as described in OAR 330-160-0090.**
- (2) The Department may require from the applicant supporting documentation such as photographs of the facility, records of generating equipment purchases, records of installation or service work orders, and an explanation of the relationship between the applicant and the WREGIS account holder.
- (3) The Department will determine whether the facility meets the requirements in ORS 469A.010 to 469A.025 and these rules for generating qualifying electricity or qualifying thermal energy and will provide written notification of its determination to the applicant.

(a) If the Department determines that the facility meets the requirements for generating qualifying electricity or qualifying thermal energy, it will certify the facility as Oregon RPS-eligible in WREGIS and provide the Oregon RPS certification number and the first eligible REC vintage date in writing to the applicant.

(b) If the Department determines that the facility does not meet the requirements for generating qualifying electricity or qualifying thermal energy, it will provide the reasons for its determination in writing to the applicant.

(c) If the Department lacks information necessary to make a determination, it will not certify the facility in WREGIS and will provide the reasons it is unable to make a determination in writing to the applicant.

Stat. Auth.: ORS 469A.130

Stats. Implemented: ORS 469A.130 - 469A.145

Hist.: DOE 1-2014, f. & cert. ef. 2-10-14

### 330-160-0080

#### Thermal Energy from the Generation of Electricity Using Biomass

(1) T-RECs may be used to comply with the Oregon RPS if they are created in association with the generation of qualifying thermal energy that is generated in a facility that meets the requirements of Section (3) of this rule and generated in a manner that meets the requirements of Section (4) of this rule.

(2) Qualifying thermal energy must be in the form of direct heat, steam, hot water, or other useful thermal form.

#### (3) Facility Requirements:

(a) The facility must generate electricity from renewable biomass sources listed under ORS 469A.025(2) and must also generate thermal energy for a secondary purpose;

(b) The age of the facility must meet the requirements of ORS 469A.020;

(c) The location of the facility must meet the requirements of ORS 469A.135(2); and

(d) The facility's electric generator must have a rated capacity of at least 10 percent of the energy content of the fuel input.

#### (4) Manner of Generation:

(a) The thermal energy must be generated as a byproduct of the generation of electricity using biomass sources listed under ORS 469A.025(2). For multiple-fuel facilities, only the portion of thermal energy that is generated from eligible biomass sources is eligible for the generation of T-RECs, in accordance with OAR 330-160-0060; and

(b) The thermal energy must be used for a “secondary purpose,” as defined in OAR 330-160-0015.

(5) Thermal energy may not be used to comply with the Oregon RPS if:

(a) It is used for “station service,” as defined in OAR 330-160-0015;

(b) It is returned to the biomass conversion device that initially created the eligible thermal resource;

(c) It bypasses the electricity production device; or

(d) It is generated while the electricity production equipment is out of service.

### 330-160-0090

#### Metering, Monitoring, and Reporting of Qualifying Thermal Energy

In order to be eligible to generate T-RECs, a facility must meet all the requirements of this Rule.

Qualifying thermal energy must be measured, monitored, and reported using the following methods:

(1) Metering:

(a) Large facilities: For facilities with the capacity to generate one or more T-RECs per hour of operation (3.412 million Btu/hr), the generator representative must have installed a thermal energy measurement system to continually measure qualifying thermal energy. The thermal energy delivered to the secondary purpose must be metered. All parameters needed to determine thermal energy to the secondary purpose must be directly measured.

(b) Small facilities: For facilities with the capacity to generate less than one T-REC per hour of operation (3.412 million Btu/hr), the generator representative must have installed a thermal energy measurement system to measure qualifying thermal energy delivered to the secondary purpose. Calculation parameters, such as heat capacity, and directly measured parameters, such as temperature and pressure, that do not vary more than +/-2% for the full range of expected operating conditions, may be evaluated on an annual basis and used in the calculation methodology as a constant. These parameters may be based on such sources as manufacturers’ published ratings or one-time measurements, but must be clearly defined and explained in the thermal energy measurement plan required under Subsection (e). All other parameters used to determine the amount of qualifying thermal energy must be continually measured. The generator representative must assess the significance of the potential error that the methodology parameters have on the total annual quantity of qualifying thermal energy and include this analysis in the thermal energy measurement plan. The generator representative must also submit to the Department for approval in the thermal energy measurement plan an appropriate discount factor to be applied to the qualifying thermal energy calculation methodology, and the Department may revise this discount factor as it considers appropriate to account for variance due to parameters that are not continually measured.

(c) The thermal energy measurement system must capture sufficient data, and make necessary calculations or provide all necessary data for calculations to be made using standard engineering calculation procedures, to determine the net thermal energy used by the secondary purpose over an interval specified in the thermal energy measurement plan.

(d) Measurement system components must be installed in accordance with the manufacturer's specifications.

(e) The generator representative must submit to the Department a thermal energy measurement plan that describes the thermal energy generating equipment, secondary purposes, data measurements to be collected, all associated measurement devices, data formats and storage, data gathering techniques, measurement system calibration, calculation methodology, discount factors, and other relevant equipment and activities that will be used to determine the quantity of qualifying thermal energy. The generator representative must also submit all necessary documentation, including drawings, specifications, piping and instrumentation diagrams, and other information as requested by the Department for system review. The thermal energy measurement system must be reviewed and approved by the Department as part of the certification of a facility as Oregon RPS-eligible.

(f) The generator representative must submit an updated measurement plan and documentation for review and approval to the Department upon the following:

(A) Changes in the configuration of the thermal energy measurement system;

(B) Installation or removal of thermal energy measurement system components;

(C) Installation of new thermal energy generation equipment or changes in thermal energy generation capacity; or

(D) Installation or removal of secondary purpose equipment, changes to secondary purpose use, or changes the secondary purpose maximum thermal energy demand;

(E) Observations that indicate the thermal energy measurement system is not performing in accordance with the thermal energy measurement plan.

## (2) Monitoring

(a) Where continual measurements are required to determine the quantity of qualifying thermal energy, the generator representative must take data readings at least once per hour or more frequently as necessary to capture irregular or frequently varying parameters. For all facilities, the qualifying thermal energy produced shall be totaled for each 24 hour period, each month, and each quarter.

(b) The generator representative must retain measured data and related thermal energy calculations on-site for 5 calendar years and make records available for audit as required by the Department.

(c) Prior to measuring qualifying thermal energy for the purpose of generating T-RECs, the generator representative must perform, or have performed, an initial calibration of the thermal energy measurement system and all associated measurement devices, or demonstrate that a calibration has been performed as specified by system component manufacturers or within the last 365 days of the application date for certification as Oregon RPS-eligible. All measurement devices shall be recalibrated annually or as specified by system component manufacturers to maintain specified accuracy.

**Calibrations must be performed using the calibration procedures specified by the meter manufacturer, calibration methods published by a consensus-based standards organization, or other industry accepted practice.**

**(d) Individuals designing, installing, operating, and maintaining the thermal energy measurement system must have appropriate training and certification. The generator representative must maintain documentation of maintenance and calibration activities.**

**(3) Reporting must be conducted in accordance with all WREGIS reporting requirements.**