



Draft Rules for Thermal Renewable Energy Certificates (T-RECs)
Companion Issues Document
August 31, 2016

Following is a list of discussion points raised during stakeholder meetings and through written comments for a rulemaking for Thermal Renewable Energy Certificates. This companion document explains the approach taken to incorporate stakeholder comments in the second draft of the rules.

ISSUE 1: Fuel displacement requirements for “secondary purpose”

The department received written and in-person comments from stakeholders on whether or not to include a requirement that the secondary use of thermal energy should displace either fuel or electricity. Comments included the following points:

- Because the Renewable Portfolio Standard (RPS) is focused on electricity, and every RPS definition in 469A.005(1)-(12) makes reference to ‘electricity’ and ‘electric,’ the definition of secondary purpose for eligible thermal energy should require displacement of electricity *only*.
- Thermal energy being used represents an increase in efficiency and as such, it should be eligible for T-RECs regardless of whether it has displaced any other fuel use.

The second draft of the rules, like the first, requires displacement of fuel *or* electricity in the definition of secondary purpose. While the RPS is strongly focused on electricity, the addition of thermal energy to the Renewable Energy Certificate (REC) system necessitates some accommodation of the technical differences between thermal energy and electricity. For example, there are a number of facilities using thermal energy for secondary purposes for which electricity would never be substituted for efficiency reasons. These facilities would use fossil fuels in place of available thermal energy and many are not even configured to power these processes with electricity. Requiring displacement of electricity would disqualify these facilities from earning thermal RECs.

Additionally, given the large share of renewables in Oregon’s electricity mix, requiring displacement of only electricity would, at facilities located in Oregon, represent the displacement of a relatively renewable power source. Much of the fuel use displaced by thermal energy in Oregon is natural gas, a non-renewable fuel.

ISSUE 2: Exclusion of processing the facility's fuel from eligible secondary purposes

During the first two stakeholder meetings and in written comments, stakeholders have been split on whether the processing of fuel to be used on-site should be an eligible secondary purpose. Stakeholder comments include:

- There is a potential for “double counting” in the sense that facilities using thermal energy to process their fuel for more efficient conversion (i.e. combustion) get T-RECs for that processing, and then they also receive RECs for the electricity production, and at a higher rate due to the efficiencies from that fuel processing.
- Such fuel processing is, essentially, station service in that it is in support of the generation of electricity. Crediting facilities for serving their own load is not allowed for electricity generation, and it should not be allowed for thermal energy use.
- If the RPS goal is to reduce the use of fossil fuels, then any thermal energy use is a good thing and should be eligible.
- In combined heat and power (CHP) facilities, the best and most efficient use of thermal energy is to drive it back into the electricity generation system. Facilities should not be punished for being efficient.

Some state RPS programs and REC tracking systems (i.e. WREGIS) allow crediting for electricity use associated with on-site fuel processing. However, in states like Massachusetts, North Carolina, and New Hampshire, thermal energy used for on-site fuel processing is not eligible for crediting. The Massachusetts definition of “useful thermal energy” explicitly states, “Thermal energy used for the purpose of drying or refining biomass fuel shall not be considered Useful Thermal Energy.”¹ Likewise, North Carolina Public Utility Commission’s Renewable Energy and Energy Efficiency Portfolio Standard (REPS) rules state, “Thermal energy output that is used as station power or to process the facility’s fuel is not eligible for RECs.”² New Hampshire’s rules do not explicitly disallow crediting for thermal energy devoted to on-site fuel processing, but such uses are addressed in the application process.

Due to concerns related to crediting thermal energy end uses that are in support of electricity generation (station service), the draft rules have excluded processing of fuel to be used on-site as an eligible secondary purpose for issuance of T-RECs. However, any thermal energy used to process a product, including fuel, to be sold is eligible for crediting.

ISSUE 3: Retroactive crediting for thermal energy

The draft rules allow qualifying thermal energy generated on or after the effective date of the statute (March 8, 2016) to be eligible for T-RECs. Under the definition of “stranded thermal energy,” this second draft adds deadlines for registering the facility with WREGIS and reporting thermal generation to the department. If generator representatives wish to be issued T-RECs

¹ [Massachusetts 225 CMR 14.00 Renewable Energy Portfolio Standard – Class I.](#)

² [North Carolina 04 NCAC 11 R8-67\(g\)\(4\) Renewable Energy and Energy Efficiency Portfolio Standards \(REPS\).](#)

for thermal energy used at facilities between 3/8/16 and the date the rules enter into force (estimated to be December 1, 2016), they must register the facility in WREGIS for thermal energy on or before March 1, 2017. Additionally, generator representatives must submit an application to be certified Oregon RPS-eligible to the department on or before March 1, 2017. Once the department certifies a facility as Oregon RPS-eligible, the generator representative then has six months to report retroactive qualifying thermal energy use.

Facilities wishing to earn T-RECs for thermal energy used after the date of rule need only register in WREGIS before the date of thermal energy use for which they are seeking T-RECs, unless otherwise constricted by existing statute (i.e. 469A.020; Chapter 17 Oregon Laws 2010 Special Session (HB 3674); etc.). The department has limited the period that facilities can apply for retroactive T-RECs due to the issues of data reliability and auditing costs associated with historical generation.

ISSUE 4: Definition of “station service”

Issue 2 (above) addresses some of the comments received regarding the definition of station service. While some stakeholders agreed with the definition of station service included in the first draft of the rules, others expressed:

- Any secondary purpose of thermal energy that displaces fuel or electricity should count toward the issuance of T-RECs, regardless of what that secondary purpose is.
- Any secondary uses that are clearly in support of the generation system are station service and as such, they should not be eligible for T-RECs. Not only do facilities generating electricity from renewable sources not receive RECs for serving their own load, but providing T-RECs for station service would discourage the minimization of station service load.

Additionally, the department received comment that the term ‘auxiliary facilities’ in the definition of station service was not adequately clear. The draft rule now reads, “...auxiliary facilities in support of the electricity generation system.”

Any end uses of thermal energy that are in support of the generation of electricity are included within the definition of station service and are not eligible for T-RECs. Boiler feedwater preheating, steam deaerator heating, and fuel processing are all activities related to the biomass combustion system. The primary purpose of these activities is to support or enhance the conversion of biomass to another energy form (i.e. electricity or a thermal resource). Some end uses of thermal energy (e.g. drying dimensional lumber or digesting sewage) may interact indirectly with the biomass electricity generation but these processes are not classified as station service.

Because of the variability in the design of facilities using thermal energy, the draft rules do not provide an exhaustive list of every possible instance of station service, but instead provide direction in that station service means energy used to operate an electric or thermal generating plant.

When applying to the department for certification, facilities will be required to provide facility schematics and descriptions, and any uncertainties with respect to station service will be resolved at that time.

ISSUE 5: Geographical boundaries for facilities generating T-RECs

Stakeholders have agreed that T-RECs are an unbundled instrument since they are not sold with any related thermal energy delivered to the grid.

ORS 469A.135 limits the use of RECs for compliance with the Oregon RPS to the following geographic boundaries based on bundling:

- Bundled RECs – facilities within the United States and within the boundaries of the Western Electricity Coordinating Council (WECC).
- Unbundled RECs – facilities within the WECC.

Some stakeholders have suggested that the intent of SB 1547 was to provide Oregon facilities with a greater benefit from T-RECs than facilities outside of the state, and that the rules could address this intent by only allowing Oregon facilities to participate, providing some kind of “adder” to Oregon T-RECs, treating Oregon T-RECs as “bundled,” or some other approach. However, without any clear indication of legislative intent, with T-RECs meeting the definition of an unbundled instrument, and with consideration of concerns related to interstate commerce, the draft rules allow for the same geographical boundaries for T-RECs as for unbundled RECs – T-RECs may be generated by any facility within the WECC that meets all of the other requirements of the Oregon RPS and its supporting rules.

Per ORS 469A.145, unbundled RECs from certain qualifying facilities in Oregon are exempt from the 20 percent compliance cap. The draft rules do not address this part of statute and assume that T-RECs from facilities that met all of the requirements of ORS 469A.145 would also be exempt from the 20 percent compliance cap.

ISSUE 6: Metering, Monitoring, and Reporting

Numerous stakeholders have suggested that the rules should seek to balance the need for data integrity with the administrative costs for participating. This second draft of rules has shifted metering requirements to focus on broader best performance criteria, drawing upon sources including stakeholders, the International Performance Measurement and Verification Protocol (IPMVP), and federal requirements for monitoring and reporting CO₂.

Additional changes to the metering and monitoring rules include:

- A certified Professional Engineer is no longer required to review facility applications for certification to be Oregon-RPS eligible. Instead, a certified professional specific to the kind of facility type or secondary use of the thermal energy may provide review.

- Different thresholds of metering and monitoring are available for facilities based on the capacity for Btus/hour. A threshold of 3.412 million Btu/hr serves as a placeholder in advance of stakeholder discussion and comment.
- More detail is provided on the application requirements for certification of a facility as Oregon-RPS eligible.
- A data storage requirement of five calendar years.
- A variance threshold of +/-2 percent for parameters to be used as constants by small facilities in their calculation methodology.