



# Renewable Energy Certificates for Generation of Thermal Energy

Stakeholder Workgroup Meeting

June 20, 2016



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# Presentation Outline

Oregon's RPS: Background

Biomass and the RPS

Renewable Energy Certificates (RECs)

SB 1547 and Thermal RECs

Draft Rulemaking Schedule



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# Oregon's Renewable Portfolio Standard (RPS)

- In 2007, OR legislature passed law that a percentage of utility electricity must come from renewable sources.
- Rationale = stimulate development of renewable resources.
  - 60% of growth in US renewable electricity generation since 2000 driven by RPS requirements\*



# RPS-Eligible Renewable Electricity Generation

- Wind
- Solar (PV and thermal)
- Wave, tidal, ocean thermal
- Geothermal
- Hydroelectric (with restrictions)
- Municipal solid waste combustion
- Hydrogen gas
- Biomass. . .



# RPS-Eligible Biomass Power

- Organic human or animal waste
- Spent pulping liquor
- Forest or rangeland woody debris\*
- Wood material from timber\*
- Agricultural residues
- Dedicated energy crops
- Landfill gas, biogas from organic matter, wastewater, anaerobic digesters, municipal solid waste



# Renewable Energy Certificates (RECs) under the RPS

A renewable energy certificate is:

“...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.”

# The Life of a REC, Part I

- Facility registers with WREGIS\* as eligible for Oregon RPS
- Facility applies to ODOE for Oregon Certification as a Qualified Facility.
- Renewable electricity is produced at Facility and delivered to grid.
- Facility reports renewable electricity generation to WREGIS\*.
- WREGIS verifies and issues RECs to Facility.

\*Western Renewable Energy Generation Information System



## The Life of a REC, Part II

- WREGIS issues a Facility RECs for each MWh of renewable electricity generated.
- Facility can then:
  - Retire them
  - Bank them
  - Trade them





# WREGIS and the REC Market

- Independent tracking system for renewable energy in the region.
  - WREGIS gathers data, provides oversight, ensures integrity of RECs.
- Renewable electricity generators:
  1. Register with WREGIS;
  2. Provide verifiable data; and
  3. Receive RECs with unique serial numbers.





## SB 1547: What it Says For T-RECs

“If a facility that generates electricity using biomass also generates thermal energy for a secondary purpose, [ODOE], as part of the system established under ORS 469A.130, shall provide that renewable energy certificates must be issued for generation of the thermal energy.”

1 MWh = 3,412,000 BTUs



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# SB 1547: What it Doesn't Say For T-RECs

- What kind of biomass is eligible?
- How much electricity must be generated?
- How is 'secondary purpose' defined?
- Restrictions on COD for facilities?
- Start date for crediting?
- Methodology for measurement, reporting, and verification of thermal energy generation?
- Others?



# DRAFT Rulemaking Schedule

|          |                                     |   |
|----------|-------------------------------------|---|
| 6/20/16  | Stakeholder Workgroup Meeting #1    | Discuss options for draft rule  |
| 8/3/16   | Stakeholder Workgroup Meeting #2    | Discuss draft rules, fiscal impacts for statement                       |
| 9/7/16   | Stakeholder Workgroup Meeting #3    | Feedback on second draft of rules, first draft fiscal impacts statement |
| 11/2/16  | Public Hearing and Comment Deadline |   |
| 11/29/16 | Rules filed w/ Sec of State         |   |



# Questions? Comments?

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