

## Agenda

### Renewable Energy Advisory Council

Wednesday, April 29: 9:00 a.m. – noon

[NOTE: This meeting starts a half-hour earlier than usual](#)

<http://energytrust.org/About/public-meetings/REACouncil.aspx>

Energy Trust conference room Kilowatt

421 SW Oak St., Suite 300

Portland, Oregon 97204

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|--------------|---|----------------------------|
| <b>9:00</b>  | <b>Welcome, introductions</b> <ul style="list-style-type: none"><li>• Review agenda</li><li>• Staffing changes</li></ul>  | <b>Information</b>         |
| <b>9:15</b>  | <b>RECs and Energy Trust's REC policy</b> <ul style="list-style-type: none"><li>• Energy Trust's REC policy is undergoing its scheduled review. Because the REC market has changed since the policy was first developed more than ten years ago, the board is doing a more extensive review that includes an examination of current market conditions and how the policy functions in those new conditions.</li><li>• Staff will facilitate a discussion of the policy and its implications for project development with the purpose of gathering RAC input to be provided to the board.</li><li>• To prepare for this discussion, the RAC is invited to review a briefing document that was part of the packet for the April 1 board meeting. The document is below this agenda.</li></ul> | <b>Discussion/feedback</b> |
| <b>11:55</b> | <b>Public comment</b>   |                            |
| <b>12:00</b> | <b>Adjourn</b>  |                            |

Our next meeting is Wednesday, June 3, 2015. You can view this agenda and meeting notes at: <http://energytrust.org/About/public-meetings/REACouncil.aspx>. If you have comments on meeting notes, please alert Betsy Kauffman at [betsy.kauffman@energytrust.org](mailto:betsy.kauffman@energytrust.org).

# Briefing Paper

## Renewable Energy Certificates Report Executive Summary

February 25, 2015

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### Introduction

Energy Trust's policy on Renewable Energy Certificates ([4.15.000-P](#)) came up for review in 2014. Because the market for Renewable Energy Certificates (RECs) has continued to evolve since the policy was developed, staff proposed a comprehensive, independent evaluation of REC market conditions to examine how the policy is working and whether it should be changed.

This is a board briefing on the Energy Trust of Oregon REC Report, an evaluation by Patrick Nye of Bonneville Environmental Foundation (BEF) in consultation with Energy Trust staff. The full report is available here: [http://assets.energytrust.org/api/assets/reports/REC\\_Report.pdf](http://assets.energytrust.org/api/assets/reports/REC_Report.pdf). Patrick and BEF were one of the earliest actors in the REC market, influencing many of the standards in use today. At the April 1 board meeting Patrick will provide a presentation giving an overview of RECs, REC markets, RECs in Oregon, and some of the challenges of participating in the market.

After the April 1 board meeting, the policy committee will consider potential changes to the policy in light of the report and make a recommendation to the board.

This briefing paper provides a high level summary of the independent evaluation report and provides an introduction and background of RECs and REC markets, as well as a summary of Energy Trust's current REC policy, in the expectation that the board may be asked to consider changes based on policy committee recommendations.

### Background

#### RECs and REC Markets

Every megawatt hour (MWh) of electricity generated by a solar, wind or other renewable project produces two things: electricity, which is sold in traditional energy markets; and RECs, certificates that may be sold in REC markets or used to make green claims.

RECs represent the "renewableness" of renewable energy. RECs and REC markets developed over the last couple of decades to monetize this renewable value, support markets to trade it, and provide incentives for renewable energy development. As RECs have evolved, they are increasingly seen as the "currency" of renewable electricity and green power markets. They are bought and sold between multiple parties and allow their owners to claim that renewable electricity was produced to meet their owner's electricity demand.

The first RECs were traded in voluntary exchanges, so that a person who wanted to claim to be "green-powered" had a certificate to back up such a claim. This was known as a "voluntary market." Later, as governments passed laws requiring utilities to have certain percentages of renewable energy generation in their portfolios ("renewable portfolio standards," or RPSs), "compliance" markets evolved.

To facilitate trading in voluntary and compliance markets, each certificate shows the underlying generation source, location of generation, and year of generation (a.k.a. “vintage”). Third-party registries keep track of each REC and when it is traded.

### **RECs in Oregon**

Oregon’s renewable portfolio law, passed in 2007, requires larger utilities to have 15% of their resource portfolios renewable by 2015, 20% by 2020, and 25% by 2025. Some of these obligations can be satisfied by the purchase of RECs. Oregon and other western states use the Western Renewable Energy Generation Information System (WREGIS) to keep track of RECs and REC sales.

PGE currently has enough RECs to meet its RPS obligations through 2020. Pacific Power is supplied through 2024. Both utilities will need to acquire additional RECs to meet their obligations beyond then.

PGE and PacifiCorp also operate green power programs required by Oregon’s renewable energy law.

### **Energy Trust REC Policy**

Energy Trust and the Oregon Public Utility Commission (OPUC) recognized RECs early in Energy Trust’s history. In 2004, based on discussions with its Renewable Energy Advisory Council (RAC), the OPUC and its board, Energy Trust established a REC policy. At that time, the only REC transactions in Oregon were voluntary and REC values were modest.

Energy Trust policy has changed incrementally with developments in law, REC markets and organizational needs. When it was first discussed, the primary concern was to recognize RECs and ensure that Energy Trust got the full value of renewable energy supported by Energy Trust incentives. Here is how the policy evolved:

- At first, Energy Trust policy was to take *all* RECs if any Energy Trust incentives were provided.
- Soon after, Energy Trust modified the policy to take RECs only in *proportion* to Energy Trust’s contribution to the project’s above-market costs. The policy allowed flexibility in the timing of REC ownership to accommodate projects concerned with retaining RECs to make “green claims.”
- In February, 2005, the board made an exception to the policy for residential solar installations in order to reduce the administrative burden of tracking and verifying a relatively small number of RECs. The board withdrew the exception a few months later when the OPUC objected that ratepayers might pay twice for the same REC: once with Energy Trust incentives and again via utility green power programs.
- In 2007, after Oregon adopted its renewable portfolio standard, many people thought that future REC values could far exceed the value of Energy Trust incentives. Energy Trust modified the policy so Energy Trust would take as many RECs as Energy Trust incentives could buy in the market.

## **Summary of the Report’s Key Findings**

- REC value is now low, significantly lower than supposed when Energy Trust modified the policy in 2007. The REC market is oversupplied. (See page 27)

- PGE and Pacific Power filings indicate that both utilities have sufficient REC supplies to meet compliance needs through at least 2020. (See page 22)
- While Energy Trust has made progress on streamlining delivery of RECs to the utilities for some projects, WREGIS does not easily or cost-effectively accommodate small projects (see pages 15, 45), and so far we have been unable to develop a cost-effective and workable process for getting standard solar RECs into WREGIS. (See pages 47-51) Standard solar RECs, resulting from more than 7000 projects through 2014, are forecast to grow from 25% to 40% of Energy Trust's Renewable Energy portfolio between 2015 and 2030. (See pages 15, 41, 45).
- Energy Trust contractually controls about 125,000 RECs annually. This is expected to reach about 280,000 RECs in 2025. At present this represents 3-5% of PGE and Pacific Power's annual RPS requirements. As RPS requirements increase, Energy Trust's potential contribution goes down on a percentage basis. (See pages 41, 42)

## Potential Energy Trust REC Policy Implications

At this stage in our review of the report, staff has identified three areas of potential policy concern. This is only an initial list pending deeper analysis with the benefit of discussion with the RAC, the OPUC and others, which we will bring back to the board at a future meeting:

- Energy Trust's REC policy overlaps with utility green power grant programs and Qualifying Facility power purchase agreements. This overlap can lead to Energy Trust and the utilities claiming more than 100% of a project's RECs, if working individually. (See pages 22, 43, 46)
- Despite years of effort, Energy Trust has been unable to cost-effectively register RECs from small, net-metered projects with WREGIS and deliver them to the utilities (pages 14-15, 46, 49-51).
- Customers who want to use RECs to make green claims sometimes find Energy Trust's REC policy an impediment to reaching agreement with Energy Trust (see pages 28, 45).