



# Oregon

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## Public Comments on Renewable Energy Certificates Associated with Energy Imported into the California Energy Imbalance Market

*Updated August 2017*

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July 14, 2017

Oregon Department of Energy  
550 Capitol Street N.E.  
Salem, OR 97301  
Attention: Rebecca Smith

RE: Public Comment on Renewable Energy Certificates Associated with Energy Imported into California via the Energy Imbalance Market

Dear Ms. Smith:

Avangrid Renewables thanks the Oregon Department of Energy (ODOE) for the opportunity to respond to the Request for Public Comment.

Avangrid Renewables is a non-transmission owning independent power producer developing and operating wind, solar, biomass and thermal energy facilities, among other energy services. Avangrid Renewables, with its affiliates, is the second largest wind energy generator in the United States, selling customers renewable energy from more than 6,000 megawatts of operating renewable energy generating capacity. Over 2,300 MW of that capacity is located in WECC and served by WREGIS.

**ODOE Request for Stakeholder Comments**

Question 1: “Does the definition of a REC in ODOE’s RPS administrative rules (OAR 330-160-0015) include the direct greenhouse gas zero-emissions attributes associated with renewable energy generation?”

Question 2: “Does the California Air Resource Board’s assignment of a zero-emissions factor to renewable energy imported into California via the EIM constitute a claim on the RECs associated with that renewable energy?”.

The context of Question 1 leads us to conclude that “the direct greenhouse gas zero emissions attributes” to which ODOE refers are associated with, and governed by, the California Air Resources Board (CARB) cap-and-trade and mandatory reporting regulations referred to in Question 2, specifically the reporting of a zero emission factor to the CARB made by an electricity or EIM importer into California.

In short, we answer “no” to both questions.



## **GHG and RECs**

We concur with the Western Power Trading Forum’s comments to ODOE explaining how Oregon RPS RECs compliance and emissions reporting for a greenhouse gas compliance program are completely separate. We further concur with the conclusions of the Environmental Protection Agency in its Clean Power Plan Final Rule: “a MWh of electric generation from a wind turbine could be used ... to comply with state RPS requirements *and also be used* ... to comply with emission standard requirements under a state plan.”<sup>1</sup>

## **California Imports**

The answers to ODOE’s questions concern not only EIM, but also all energy that is imported into California, and into any other Western state that may develop a greenhouse gas program in the future.

CARB regulations require an importer of electricity from a specified generating unit to report to CARB the emissions factor of the generator and the disposition of the RECs from resources eligible under the California Renewable Portfolio Standard.<sup>2</sup> The reporting importer does not need to retire the RECs, only report the disposition of the RECs.<sup>3</sup> California does not accept REC retirement as compliance for its GHG program; rather it accepts allowances or offsets, and asks for a report of what happened to the RECs, if there are any. In fact, some might say that renewable energy imported into California simply does not increase an importer’s GHG compliance obligation.

In 2014, CARB expanded its definition of “Electricity importers”, who must report imports of energy, to apply to imports from EIM participating resources.<sup>4</sup> EIM imports are especially complex, since there can be a “deemed” import from an EIM resource into California based on CAISO’s software, even if there is no physical transmission availability into California.

## **ODOE’s Definition of a REC**

ODOE’s administrative rules, OAR 330-160-0015(16), define a REC as:

“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

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<sup>1</sup> EPA, Final Rule, Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Generating Units, 40 C.F.R. Part 60, 80 F.R. 64662, 64850 (Oct. 23, 2015).

<sup>2</sup> See 17 California Code of Administrative Regulations §§95852(b)(3)(D); 95111(a)(4); 95111(g)(1)(M).

<sup>3</sup> §95111(g)(1)(M).

<sup>4</sup> §95102(a)(141).



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.

The OAR says “representation of *the* environmental ... “and not “representation of *all of the* environmental ...”. Either (i) *not all* of the environmental benefits are included, or (ii) *all* are included and a report of resource characteristics is something other than a “benefit,” because in other contexts ODOE applies the OAR to not require retirement of a REC when the resource characteristic is reported to it. For example, OAR 860-038-0300, setting forth Electric Company and Electricity Service Suppliers Labeling Requirements, is a report to the public of the renewable content of fuel, which includes the emissions attribute. Compliance with OAR 860-038-0300 does not constitute a claim on the REC mandating retirement.

California regulators have a very broad and detailed definition of a REC that specifically says “any and all” and sets forth a very comprehensive list with specific references to GHG emissions,<sup>5</sup> and yet have provided that the zero emission report to CARB is not a claim that requires a retirement.<sup>6</sup> In California, the report of a specified import has no impact on the use of the REC for RPS compliance. It is not a claim mandating retirement, in contrast to the position WREGIS takes in its EIM memo.

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<sup>5</sup> The California Public Utility Commission’s definition of a REC in the CPUC’s *Decision On Definition And Attributes Of Renewable Energy Credits For Compliance With The California Renewables Portfolio Standard*, CPUC D.08-08-028 (Aug. 21, 2008) provides in Appendix B: “Green Attributes” means **any and all** credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, attributable to the generation from the Project, and its avoided emission of pollutants. Green Attributes include but are not limited to Renewable Energy Credits, as well as: (1) any avoided emission of pollutants to the air, soil or water such as sulfur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO) and other pollutants; (2) any avoided emissions of carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride and other greenhouse gases (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change, or otherwise by law, to contribute to the actual or potential threat of altering the Earth’s climate by trapping heat in the atmosphere; (3) the reporting rights to these avoided emissions, such as Green Tag Reporting Rights. Green Tag Reporting Rights are the right of a Green Tag Purchaser to report the ownership of accumulated Green Tags in compliance with federal or state law, if applicable, and to a federal or state agency or any other party at the Green Tag Purchaser’s discretion, and include without limitation those Green Tag Reporting Rights accruing under Section 1605(b) of The Energy Policy Act of 1992 and any present or future federal, state, or local law, regulation or bill, and international or foreign emissions trading program. Green Tags are accumulated on a MWh basis and one Green Tag represents the Green Attributes associated with one (1) MWh of Energy. ... 1 Avoided emissions may or may not have any value for GHG compliance purposes. Although avoided emissions are included in the list of Green Attributes, this inclusion does not create any right to use those avoided emissions to comply with any GHG regulatory program.”

<sup>6</sup> The California Energy Commission’s (CEC) Eligibility Guidebook, 9th ed. says on p. 60, fn. 43: “Use of a REC for compliance with the California RPS does not preclude an [Load Serving Entity]’s ability to report a specified import or use the RPS adjustment in accordance with [CARB’s cap and trade program]. The CEC has similar language in its 2015, 8th edition of its Eligibility Guidebook on p. 60, fn. 35.



### **WREGIS Role in Setting Policy**

WREGIS's definition of a REC is modeled on the CPUC's.<sup>7</sup> Yet the April 19, 2017, WREGIS memo to account holders states that "WREGIS account holders bidding energy into the EIM should be prepared to retire the RECs associated with that energy. The RECs have been split and are no longer complete RECs as defined by the WREGIS Operating Rules. These RECs should be retired under the timeline outlined by the applicable state program or as defined by the CAISO."

It is unclear why WREGIS provided this memo, taking unilateral action without seeking stakeholder input. WREGIS staff is essentially taking a policy position, that the same megawatt hour cannot be used for both California's RPS and GHG programs, which is completely contrary to the regulatory regime in the State of California. The plain words of WREGIS's memo prohibit use of RECs associated with energy from specified imports into California from being used for California RPS compliance; as they "are no longer complete" they fail to meet the requirements for issuance of a WREGIS Certificate and must be retired before further transfer. WREGIS is supposed to provide a service to renewable state programs in the West, not dictate program terms to them. The action taken by WREGIS poses significant risks to state programs, and destabilizes markets for renewable energy and RECs throughout the WECC. WREGIS's position taken here will work at cross-purposes to the goals of each Western state RPS or GHG program.

### **Regulators Should Work Together**

Avangrid Renewables recommends that ODOE and the other state program administrators in the Western states meet and confer concerning this matter, and engage in further process soliciting public input, before ODOE removes Oregon's renewable energy from GHG programs like California's or the EPA's Clean Power Plan.

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<sup>7</sup> The WREGIS Operating Rules provide on pp. 4-5: "Renewable and Environmental Attributes: Any and all credits, benefits, emissions reductions, offsets, and allowances—howsoever titled—attributable to the generation from the Generating Unit, and its avoided emission of pollutants.2 ... 2 The avoided emissions referred to here are the emissions avoided by the generation of electricity by the Generating Unit and therefore do not include the reduction in greenhouse gases (GHG) associated with the reduction of solid waste or treatment benefits created by the use of biomass or biogas fuels. Avoided emissions may or may not have any value for complying with any local, state, provincial, or federal GHG regulatory program. Although avoided emissions are included in the definition of a WREGIS Certificate, this definition does not create any right to use those avoided emissions to comply with any GHG regulatory program."



## **Harmful Effects to Oregon Renewable Resources**

There will be direct negative consequences to renewable resources in Oregon were ODOE to require energy importers into California to retire their RECs:

- Oregon owners of EIM renewable resources will not bid these resources into EIM. This is counter to the goal of making the highest and best use of intermittent renewable energy resources.
- If an EIM transfer that results in a report to CARB claiming the zero emission attribute is a claim that retires the REC, then any non-EIM import into California that requires reporting to CARB would do the same thing. In EIM, a generator decides whether to bid and risk an import into California. In contrast, a generator relying on the last sentence of OAR 330-160-0015(16), permitting the energy to be sold unbundled from the REC, selling in Oregon does *not* control whether its energy eventually goes into California. A generator would lose those RECs if its buyer resold the energy into California and it is reported to CARB. To protect RECs from retirement, generators would have to require buyers not to resell energy into California, and to require their customers not to do so. This would create a separate, sub-product of renewable energy in Oregon, reducing the value of that energy. This reduction in value would impair existing contracts.
- There would be fragmentation and inhibition of renewable energy markets at a time when renewable energy markets and comity among like-minded regulatory programs should be encouraged. Other states might put strictures on their renewable reporting, for example ruling that Oregon's content disclosures at OAR 860-038-0300 are claims requiring REC retirement, and this would adversely affect Oregon generation.
- Regulatory uncertainty and complication would increase exponentially. For example, CARB's rules treat Bonneville Power Administration (BPA) as an "Asset Controlling Supplier" (ACS), assigning imports from BPA into California a low emissions factor. If the principle is that CARB reporting is a claim of the "zero emission" attribute that requires retirement of the REC, then an Oregon seller to BPA should be required to retire some amount of RECs to reflect BPA ACS claims by California reporting entities. As a second example, CARB is currently struggling with assigning emissions reporting and compliance obligations to what it calls "secondary" EIM dispatch, or units dispatched outside of California because least cost dispatch in EIM can send low emitting resources to CAISO, while not accounting for dispatch of other resources to serve non-CAISO demand.



**Continued stakeholder dialogue would benefit this discussion**

As discussed, there are many issues and potential market consequences to consider as ODOE considers the eligibility of RECs associated with renewable energy delivered into California. We respectfully implore ODOE to conduct a robust stakeholder process that will allow for further dialogue before it makes any final determination. We also recommend ODOE require WREGIS to retract its April 19, 2017 memo.

Regards,  
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August 2, 2017

Rebecca Smith, Senior Energy Policy Analyst  
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RE: Public Comment on June 15, 2017 Workshop on RECs, the Oregon Renewable Portfolio Standard, and energy imports into the California via the western Energy Imbalance Market

Dear Ms. Smith:

The California Air Resources Board (CARB), the California Energy Commission (Energy Commission) and the California Public Utilities Commission (CPUC) appreciate the opportunity to provide public comment in response to the Oregon Department of Energy request for comment following the June 15, 2017 workshop focused on Oregon's treatment of renewable energy transacted through the California Independent System Operator's (California ISO) western Energy Imbalance Market (EIM).

California looks forward to further discussion with the Oregon Department of Energy regarding the opportunities that the EIM market presents the two states. We are limiting these comments to a discussion of the definition and usage of Renewable Energy Credits (RECs) in our Renewables Portfolio Standard (RPS) program and clarification of the treatment of renewable electricity by CARB in the context of our Cap-and-Trade Program. The integrity of both markets and their accounting tools are of paramount importance to achieving our respective greenhouse gas (GHG) emissions reduction goals. As you know, California and Oregon are also both members of the Under 2 Coalition and share an interest in achieving the GHG emissions reductions that each state has pledged to achieve under the Under 2 Memorandum of Understanding. We look forward to continued discussions to ensure both states meet their climate goals without double counting RECs, but allowing for maximum flexibility in the electricity and RPS markets.



California has several landmark climate and energy policies and programs that aim to advance renewable energy and reduce GHG emissions in California, including the California RPS, the Mandatory Greenhouse Gas Reporting Regulation (MRR), and the California Cap-and-Trade Program. All of these programs adopt the same definition of a REC.

Public Utilities Code section 399.12 (h) defines a “Renewable energy credit” as:

“a certificate of proof associated with the generation of electricity from an eligible renewable energy resource, issued through the accounting system established by the Energy Commission pursuant to Section 399.25, that one unit of electricity was generated and delivered by an eligible renewable energy resource.”

It goes on to specify that a REC:

“includes all renewable and environmental attributes associated with the production of electricity from the eligible renewable energy resource, except for an emissions reduction credit issued pursuant to Section 40709 of the Health and Safety Code and any credits or payments associated with the reduction of solid waste and treatment benefits created by the utilization of biomass or biogas fuels.”

The definition of a REC reflects the renewable and environmental attributes identified by the California Public Utilities Commission (CPUC) Decision 08-08-028, which states:

“A REC includes all renewable and environmental attributes associated with the production of electricity from the eligible renewable energy resource, including any avoided emission of pollutants to the air, soil or water; any avoided emissions of carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, or any other greenhouse gases...” Decision 08-08-028 further provides, “[a]lthough the avoided GHG emissions attribute is included in the definition of the REC, under a cap, the avoided GHG emissions attribute should ... have zero value” (p.23). Accordingly, the REC may not be used for GHG emissions reduction purposes.

CARB has codified in the design of the California Cap-and-Trade Program that a REC does not confer avoided emissions value under the Program, as the total GHG emissions allowed under the cap are fixed. If renewable energy is generated rather than fossil-fuel based energy, emissions are not avoided because the cap on emissions does not change. Rather, the generation of renewable energy instead of fossil-fuel based energy makes available allowances that can be used by other entities.

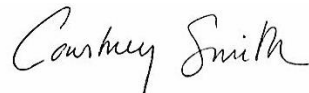
Under California’s MRR and the Cap-and-Trade Program, entities that import electricity into California from specified sources must report the electricity associated with those

imports to CARB, irrespective of whether the imported electricity is also associated with RECs. CARB then assigns emission factors to specified resources based on fuel type. For most renewable resources, the emission factor is zero. California's Cap-and-Trade Program does not require that RECs be retired for specified source imports for compliance with the Program, nor does it consider that the assignment of a zero emission factor constitutes avoided emissions or a claim on a REC. Through the reporting of actual emissions of imported electricity from renewable electricity resources, the Cap-and-Trade Program recognizes that zero-emission electricity was brought into California to serve California load. Electricity imported via EIM is electricity from a specified source and is reported as such to CARB. In the future, if Oregon establishes an emissions trading program, California and Oregon will need to coordinate to ensure there is accurate accounting of GHG emissions for flows of electricity between the two states.

Under California's RPS, renewable electricity from facilities interconnected to the grid inside or outside of California may only count toward California's RPS requirements if a REC is retired and reported. Electricity transacted into EIM is treated the same as other electricity in California for purposes of RPS and is not subject to additional eligibility restrictions.

California recognizes the benefits to California and other states of the EIM market and will continue to work to support the continued development of EIM while upholding the integrity of its climate and energy programs.

Sincerely,



Courtney Smith  
Deputy Director, Renewable Energy Division  
California Energy Commission



Rajinder Sahota  
Assistant Chief, Industrial Strategies Division



California Air Resources Board  
Edward Randolph  
Director, Energy Division  
California Public Utilities Commission

Ms. Rebecca Smith  
August 2, 2017  
Page 4 of 4

cc: Robert P. Oglesby, Executive Director, California Energy Commission  
Edie Chang, Deputy Executive Officer, California Air Resources Board

July 14, 2017

**Via Electronic Mail**

Ms. Rebecca Smith  
Oregon Department of Energy  
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[rebcca.smith@oregon.gov](mailto:rebcca.smith@oregon.gov)

**Re: Renewable energy certificates and renewable energy imported into California via the Western Energy Imbalance Market**

Dear Ms. Smith:

The California Independent System Operator Corporation (ISO) submits these comments in response to questions the Oregon Department of Energy has asked related to renewable energy certificates (RECs) and renewable energy imported into California via the Western Energy Imbalance Market (EIM).

**I. EIM operation permits greater integration of renewable resources**

The ISO is the market operator for the EIM, which permits participating entities to engage in real-time energy transfers using available transmission. The EIM provides both reliability and renewable integration benefits to the West while also providing economic benefits to participants. The EIM matches the lowest cost electricity supply with load every 15 minutes and dispatches participating resources every five minutes. This flexibility provides more opportunities to integrate cleaner sources of energy, such as wind and solar, that may be produced in one balancing authority area but needed in another balancing authority area.<sup>1</sup> As a result, the EIM may attribute non-emitting EIM participating resources to serve load in the ISO's balancing authority area. The EIM also allows operation of non-emitting resources within the ISO balancing authority area to serve load in other participating balancing authority areas. Of importance, the EIM is a market for energy and compensates participating resources for the cost of the energy they supply to serve load. The EIM does not facilitate, and its transactions do not constitute, the purchase by electric load of the environmental attributes of participating resources.

<sup>1</sup> More information on the benefits arising from operation of the EIM, including EIM Benefits Reports, is available at the following website:  
<http://www.caiso.com/informed/Pages/EIMOverview/Default.aspx>.

The ISO has reviewed PacifiCorp's presentation made at the Oregon Department of Energy's June 15, 2017 meeting<sup>2</sup> and agrees with PacifiCorp's concern that restrictions limiting the flexibility of resources to participate in the EIM will reduce overall market benefits to customers in the EIM area. If Oregon decides that renewable EIM participating resources serving ISO load must retire RECs associated with their output, this restriction may cause resources to elect not to participate in the EIM or elect not to make their output available to serve ISO load. This outcome could undermine the efficiency and effectiveness of the EIM to help integrate greater amounts of renewables. In this respect, the ISO strongly encourages Oregon to discuss its questions with California officials responsible for administration of California's climate programs in order to ensure a coordinated approach related to the use of RECs for purpose of compliance with state renewable portfolio standards.

**II. Imported electricity into the ISO through the EIM does not create a claim on the environmental attribute of an EIM participating resource.**

The Oregon Department of Energy has requested stakeholders to respond to the following specific questions.

1. Does the definition of a REC in the Oregon Department of Energy's RPS administrative rules (OAR 330-160-0015) include the *direct* greenhouse gas zero-emissions attributes associated with renewable energy generation?

The definition of a renewable energy certificate in Oregon's renewable portfolio standard (OAR 330-160-0015) reads as follows:

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.

This definition does not clearly encompass the emission profile of the renewable resource's energy. In interpreting whether this definition includes the direct greenhouse gas zero-emissions attributes associated with renewable energy generation, the ISO urges the Oregon Department of Energy to consider the impacts of such an interpretation. RECs are an artifact resulting from the qualifying electricity generated by the renewable resource. The definition states that the RECs reflect the value of the

<sup>2</sup> PacifiCorp presentation: RECs and the EIM: [http://www.oregon.gov/energy/energy-oregon/Documents/2017\\_6\\_PacifiCorpREC\\_Presentation.pdf](http://www.oregon.gov/energy/energy-oregon/Documents/2017_6_PacifiCorpREC_Presentation.pdf).

environmental, economic, and social benefits associated with the resource's output. These benefits may have value independent of the energy output, and it is appropriate in some instances that transactions for this value occur independently of the transactions for the energy from a qualifying renewable resource. If the Oregon Department of Energy interprets the definition of a REC to include the direct greenhouse gas zero-emissions attributes associated with renewable energy generation, it could preclude transactions for environmental, economic, and social benefits from occurring independent of transactions for the energy from a qualifying renewable resource. Such an interpretation may undermine the ability of entities to comply with Oregon's renewable portfolio standard while participating in the EIM, thereby undermining Oregon's objective to integrate greater amounts of renewable resources.

2. Does the California Air Resource Board's assignment of a zero-emissions factor to renewable energy imported into California via the EIM constitute a claim on the RECs associated with that renewable energy?

California's cap and trade program does not create a claim on a REC associated with renewable energy from EIM participating resources serving ISO load via the EIM. The California Air Resource Board (CARB) does not have rules that require the retirement of a REC when a renewable EIM participating resource is attributed as serving ISO load. Instead, CARB imposes reporting and compliance obligations on first deliverers of energy. In the context of the EIM, first deliverers of energy are EIM participating resource scheduling coordinators. These entities report emissions associated with EIM participating resources serving ISO load and comply with CARB's cap and trade program.

In addition, ISO load does not purchase the environmental attributes of a renewable EIM participating resource when that resource serves ISO load. ISO load pays solely for the energy it receives at a locational marginal price. To the extent that a REC is created with this energy, it exists independent of the electricity import that occurs through the EIM.

The ISO has reviewed the Western Renewable Energy Generation Information System (WREGIS) memorandum on the use of RECs and the EIM and disagrees with its conclusions.<sup>3</sup> The memorandum states that WREGIS account holders bidding energy into the EIM should be prepared to retire the RECs associated with that energy. But this guidance is not consistent with WREGIS operating rules, which state "certificates may be used by electricity suppliers and other energy market participants to comply with relevant state/provincial policies, regulatory programs and to support voluntary "green" electricity markets." The WREGIS memorandum also states: "These

<sup>3</sup> WREGIS Memo on RECs and the EIM dated April 19, 2017: <https://www.wecc.biz/Administrative/WREGIS%20EIM%20Memo%2020170419.pdf>

RECs should be retired under the timeline outlined by the applicable state program or as defined by the CAISO.” Neither CARB nor the ISO asserts any claim over a REC as a result of imported electricity through the EIM. There is no California program or ISO timeline to retire RECs associated with imported electricity through the EIM.

Accordingly, the certificates remain complete as defined by the WREGIS operating rules. As part of WREGIS Operating Rules, WREGIS defines *Certificate* as follows: “A WREGIS Certificate (also called a renewable energy credit) represents all Renewable and Environmental Attributes from MWh of electricity generation from a renewable energy Generating Unit registered with WREGIS or a Certificate imported from a Compatible Registry and Tracking System and converted to a WREGIS Certificate.”  
[Footnote omitted.]

WREGIS also defines ***Renewable and Environmental Attributes*** in relevant part as follows:

Any and all credits, benefits, emissions reductions, offsets, and allowances—howsoever titled—attributable to the generation from the Generating Unit, and its avoided emission of pollutants.<sup>4</sup> Renewable and Environmental Attributes do not include (i) any energy, capacity, reliability, or other power attributes from the Generating Unit; (ii) production tax credits associated with the construction or operation of the Generating Unit and other financial incentives in the form of credits, reductions, or allowances associated with the Generating Unit that are applicable to a state, provincial, or federal income taxation obligation; (iii) fuel-related subsidies or “tipping fees” that may be paid to the seller to accept certain fuels, or local subsidies received by the generator for the destruction of particular pre-existing pollutants or the promotion of local environmental benefits; or (iv) emission reduction credits encumbered or used by the Generating Unit for compliance with local, state, provincial, or federal operating and/or air quality permits.

Again, CARB’s cap and trade program extends no credits, benefits, emissions reductions, offsets, or allowances to imported electricity from renewable EIM participating resources serving ISO load. Instead, CARB requires an accurate accounting of emissions and related compliance by first deliverers of electricity. In the case of electricity imported into California via the EIM, first deliverers of electricity are EIM participating resource scheduling coordinators whose resources serve ISO load.

<sup>4</sup> WREGIS states that the avoided emissions referred to here are the emissions avoided by the generation of electricity by the Generating Unit and therefore do not include the reduction in greenhouse gases (GHG) associated with the reduction of solid waste or treatment benefits created by the use of biomass or biogas fuels. Avoided emissions may or may not have any value for complying with any local, state, provincial, or federal GHG regulatory program. Although avoided emissions are included in the definition of a WREGIS Certificate, this definition does not create any right to use those avoided emissions to comply with any GHG regulatory program.

### III. Conclusion

The ISO respectfully requests the Oregon Department of Energy find that it is not necessary for renewable EIM participating resources to retire a REC in connection with qualifying electricity that serves ISO load through the EIM. The ISO recommends that the Oregon Department of Energy engage with California officials responsible for the administration of California's climate programs in order to ensure a coordinated approach related to the use of RECs for purposes of compliance with state renewable portfolio standards.

Please do not hesitate to contact me with any questions.

Respectfully submitted,

**By: /s/ Andrew Ulmer**

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July 13, 2017

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## **RE: Comments of Center for Resource Solutions (CRS) on RECs Associated with Energy Imported into California Energy Imbalance Market (EIM)**

Dear Ms. Smith:

CRS appreciates this opportunity to respond to questions related to renewable energy certificates (RECs), the Oregon renewable portfolio standard (RPS), and renewable energy imported into California via the energy imbalance market (EIM) following a June 15, 2017 stakeholder meeting. Please find our responses to ODOE's questions below, along with responses to several other comments made at the June 15, 2017 stakeholder meeting.

### **Introduction to CRS & Green-e®**

CRS is a 501(c)(3) nonprofit organization that creates policy and market solutions to advance sustainable energy. CRS has broad expertise in renewable energy policy design and implementation, electricity product disclosures and consumer protection, and greenhouse gas (GHG) reporting and accounting. CRS administers the Green-e programs. Green-e Energy is the leading certification program for voluntary renewable electricity products in North America. For over 20 years, Green-e staff have worked with independent third-party auditors to annually verify renewable energy purchases in the voluntary market and ensure purchasers receive full environmental benefits and sole ownership of each megawatt-hour (MWh) of renewable energy they purchase. Verification procedures ensure there is no double counting between voluntary and compliance markets, and that other renewable energy or carbon policies do not claim any of the environmental benefits of certified renewable energy. In 2015, Green-e Energy certified retail sales of over 44 million MWh, representing over 1.2% of the total U.S. electricity mix. In 2015, there were over 827,000 retail purchasers of Green-e certified renewable energy, including 36,000 businesses.

### **Responses to ODOE questions in the June 23, 2017 Public Comment Request**

1. *Does the definition of a REC in ODOE's RPS administrative rules (OAR 330-160-0015) include the direct greenhouse gas zero-emissions attributes associated with renewable energy generation?*

First, based on the discussion at the June 15, 2017 stakeholder meeting, it is important to clarify that this discussion pertains to the direct emissions associated with generation (or the emissions factor)—which is zero for wind and solar—not the avoided emissions or emissions reductions associated with renewable power. California is assigning an emissions factor (emissions) to imported electricity. That is

what is potentially being double counted if the REC associated with that power is used in a different state, e.g. Oregon. California is not making a claim related to the avoided grid emissions associated with the imported power.

Yes, the direct emissions associated with renewable energy generation—or the zero-emissions emissions factor attribute—is included in the REC, in both Oregon and the Western Renewable Energy Generation Information System (WREGIS).

Intellectually, it would not make sense for the emissions associated with electricity not to follow the legal, recognized market instrument for delivering and consuming renewable electricity. If RECs demonstrate that customers receive wind power through the Oregon RPS, then the emissions associated with their electricity consumption should be the emissions associated with wind generation, i.e. zero. Otherwise, if for example Oregon were to determine that RECs used for its RPS do not contain the direct emissions associated with renewable energy generation, Oregon's RPS would claim to be delivering wind power, but not zero-emissions power. This is confusing and does not appear to be consistent with the intention behind Oregon's RPS.<sup>1</sup>

Emissions are an environmental attribute of generation. Emissions are not physically delivered through the grid. By Oregon's definition, a REC is a "unique representation of the environmental, economic, and social benefits associated with the generation of electricity from renewable energy sources."<sup>2</sup> WREGIS Certificates represent "all Renewable and Environmental Attributes from MWh of electricity generation from a renewable energy Generating Unit registered with WREGIS," where environmental attributes are "Any and all credits, benefits, emissions reductions, offsets, and allowances—howsoever titled—attributable to the generation from the Generating Unit, and its avoided emission of pollutants."<sup>3</sup>

The memo from WREGIS to its account holders dated April 19, 2017 regarding WREGIS Certificates and EIM Crossover ("WREGIS EIM Memo") confirms that the direct emissions attributes of renewable generation are contained in WREGIS certificates, and that a claim on this attribute (the emissions or emissions factor associated with renewable energy) represents a claim on the REC and requires REC retirement in WREGIS: "In the case of carbon attributes being claimed by a buyer of the energy, the REC would need to be retired in WREGIS as one or more defined attributes would be used by the buyer."<sup>4</sup>

As shown in the June 23, 2017 Public Comment Request,<sup>5</sup> the use of RECs as the basis for GHG claims for purchased renewable electricity in the United States is also consistent with best practices for market-based Scope 2 emissions calculations and reporting, which are set internationally by The GHG Protocol, a joint initiative of the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD), as well as with guidance from the White House Council of Environmental Quality (CEQ) for emissions reporting by Federal Agencies.

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<sup>1</sup> See section 27(1)(b) of Senate Bill 1547, available at:

<https://olis.leg.state.or.us/liz/2016R1/Downloads/MeasureDocument/SB1547/Enrolled>.

<sup>2</sup> OR. ADMIN. R. § 330-160-0015 (16)

<sup>3</sup> WREGIS Operating Rules. July 15, 2013.

<https://www.wecc.biz/Corporate/WREGIS%20Operating%20Rules%20072013%20Final.pdf>.

<sup>4</sup> See further below. Memo available at:

<https://www.wecc.biz/Administrative/WREGIS%20EIM%20Memo%2020170419.pdf>.

<sup>5</sup> Available at: <http://www.oregon.gov/energy/energy-oregon/Documents/2017-06-23-Public-Comment-Request-RECS-RPS-and-CA-EIM.pdf>.

2. *Does the California Air Resource Board's assignment of a zero-emissions factor to renewable energy imported into California via the EIM constitute a claim on the RECs associated with that renewable energy?*

Yes, California's assignment of a zero-emissions emissions factor to imported power does represent a claim on the REC, and once that emissions factor is assigned, if the associated REC is used outside of California or unless it is used in California, there is double counting.

Specified renewables imports into California are assigned a specified source emissions factor by the California Air Resources Board (CARB) regardless of whether the RECs associated with that power are also imported with that power.<sup>6</sup> This assignment represents a claim on the direct GHG emissions or emissions factor associated with that power and therefore a claim on the associated REC that includes that attribute in California<sup>7</sup> as well as Oregon. There will be double counting of zero-emission power if energy is imported into California without the REC, counted as zero-emissions specified power delivered to California, and then the associated REC is used to count delivery of zero-emissions power by another program outside of California.

CARB has denied double counting based on the fact that they are doing source-based accounting. They have not recognized the interaction between their source-based emissions accounting system and consumption-based accounting for renewable energy using RECs. But in the case of imports, California's program is assigning an attribute to power that is being delivered to California. An import is a delivery. CARB has simply chosen to use a different contractual mechanism, contracts for power and etags, instead of RECs. RECs are used to determine who can claim delivery and receipt of specified renewable power (and its associated emissions). RECs are used to assign emissions once the power has been injected to the grid, after the point of generation. The assignment of a specified renewable emissions factor by California to an import, a delivery of power, affects the claims of the REC owner. It is a claim on an attribute of that power and it says that the attribute, those emissions (or zero emissions), have been delivered to California.

This is a REC integrity issue for other states and voluntary programs potentially using these RECs to claim delivery or use of zero-emissions power. We have also presented it as a leakage issue for California's cap-and-trade program. By ignoring the mechanism that is used in renewable energy markets to track and allocate zero-emissions power, California is counting zero-emissions power that is potentially being counted in other states. As a result, the state is undermining its own intention to address the emissions associated with imported electricity.

If there is a claim on the REC, it must be retired for that claim in order to avoid double counting. However, if it is not retired, as it is not in this case, Oregon and other states or voluntary programs can nevertheless choose to allow double counting in their programs by accepting RECs associated with power that has been claimed as zero-emissions power for California. ODOE may consider arguments as to why this should be permitted. But even so it must acknowledge that it is double counting.

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<sup>6</sup> See Sec. 95111(a)(4) and 95111(g)(1)(M)(3) of California's Mandatory Reporting Regulation (MRR).

<sup>7</sup> See further below and CAL. PUB. UTIL. CODE § 399.12 (h)(2).

## **Responses to other comments made at the June 15, 2017 stakeholder meeting**

1. One stakeholder expressed that they did not understand why it is double counting if the RECs associated with power imported into California are used in the Oregon RPS, but it is not double counting if they are used in the California RPS.

If the RECs are used for the Oregon RPS, California is claiming a zero-emissions import into California, and Oregon is claiming that the same zero-emissions generation is being delivered to customers in Oregon for compliance with its RPS—two different states claiming the same generation is delivered or used in their state. That is double counting. The same double counting would occur if the RECs were sold to a voluntary customer outside of California or used for another RPS program.

If the RECs are used for the California RPS, California is claiming a zero-emissions import into the state and that generation is delivered to California customers for compliance with the RPS. CARB does not prescribe how imported generation can be used or to whom it can be delivered in the state. So, the REC can be used for the California RPS or it can be sold to a voluntary customer inside the state and there is no double counting—the REC and electricity are delivered once to a single party. If the REC is used for the California RPS, the generation is counted for compliance with both the cap-and-trade program and the RPS, meaning these policies are not incremental (but rather complementary) with respect to GHG emissions from the power sector. In other words, the RPS does not reduce emissions or require renewable energy generation in excess of what is required under cap-and-trade. If the REC is used for a voluntary sale to a customer in California, the generation is only counted for compliance with cap-and-trade, but the voluntary customer cannot claim their generation is surplus to regulation or affecting emissions beyond what is required by law. They must retire California allowances or have allowances retired on their behalf through the state's Voluntary Renewable Energy Reserve Account to claim their generation is making an incremental difference with respect to emissions. Green-e requires this for certified sales sourcing from California or generation imported into California.

2. One stakeholder asked whether reporting energy as zero emitting on Federal Energy Regulatory Commission (FERC) Form 1, for example, represented a claim on the RECs, and if not, why not.

FERC Form No. 1 is designed to collect financial and operational information from electric utilities, licensees and others. Reporting of fuel type or sales by a generation facility or facility owner to FERC, CARB, another agency or voluntarily does not represent a claim on the REC. A generator can claim to be producing renewable power, an offtaking utility/supplier can claim to be delivering that power and the REC, and the REC owner can claim receipt or use of that power. There is no double counting between these entities in this case. A single MWh can have both a single producer and a single consumer. RECs only determine delivery and use of renewable energy on the grid. Double counting occurs where there is more than one consumer of a MWh, or more than one producer of a MWh.

Again, an import is a delivery. In the case of imports, CARB is not only claiming the generator is producing zero-emissions power, it is saying that power is delivered to and consumed in California. If it does that without the REC and the REC is delivered to and consumed in a different state, that is double counting.

3. There was some discussion at the stakeholder meeting of whether or not the WREGIS EIM Memo is accurate.

The WREGIS EIM Memo relates to the same treatment of imported renewable electricity bidding into the EIM claimed as specified renewable imports under the California MRR and cap-and-trade regulation. The memo confirms that the direct emissions attributes of renewable energy generation are contained in WREGIS certificates, that a claim on this attribute (the emissions or emissions factor associated with renewable energy) represents a claim on the REC, and that California’s practice of specified source reporting and assigning a specified source emissions factor to all direct imports of power represents a claim on the REC. Though some of the precise language in the memo regarding disaggregation, splitting, retirement, and CAISO rules will be clarified and revised in the coming months, these broader messages are correct and important.

4. There was some discussion of whether California has said that carbon attributes are not included in a REC due to cap-and-trade.

California’s has not said that the carbon attributes are not included in a REC due to cap-and-trade. California defines a REC as including “all renewable and environmental attributes associated with the production of electricity from the eligible renewable energy resource, except for an emissions reduction credit issued pursuant to Section 40709 of the Health and Safety Code and any credits or payments associated with the reduction of solid waste and treatment benefits created by the utilization of biomass or biogas fuels.”<sup>8</sup> The language excluding “emissions reduction credits” from the attributes included in a REC is intended to prevent disruption of existing air regulations in California and is not related to the direct GHG emissions factor attribute of renewable energy contained in the REC or general grid GHG reduction claims. To the extent that it could be misinterpreted to affect whether avoided emissions attributes are contained in a California REC, California Public Utilities Commission (CPUC) Decision 08-08-028<sup>9</sup> clarifies that they are. However, again, the questions before ODOE and WREGIS in this case pertain to the direct emissions attribute, not avoided emissions.

Others have pointed to Footnote 43 in the 9<sup>th</sup> edition of the California Energy Commission’s (CEC’s) RPS Eligibility Guidebook:

“The Energy Commission uses the retirement information to verify the claims an LSE [load-serving entity] plans to use to satisfy its RPS procurement requirements, and to ensure that a REC is counted only once for compliance with the California RPS, for the regulatory requirements of any other state, or to satisfy any other retail, regulatory, or voluntary market claim.”<sup>43</sup>

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<sup>43</sup> Use of a REC for compliance with the California RPS does not preclude an LSE’s ability to report a specified import or use the RPS adjustment in accordance with the California Air Resources Board’s ‘California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms to Allow for Use of Compliance Instruments Issues by Linked Jurisdictions and Regulation for the Mandatory Reporting of Greenhouse Gas Emissions’ (California Code of Regulations, Title 17, Sections 95801 – 96022 and California Code of Regulations, Title 17, Sections 95100-95158).”

This does not say the direct emissions attribute of generation is not included in the REC. It simply says the REC can still be counted for compliance in California. This makes sense because it is in the same state. Cap-and-trade can count a zero-emissions import and the RPS can count that import toward the RPS—one says it is a zero-emissions import into the state and the other says that renewable energy is

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<sup>8</sup> CAL. PUB. UTIL. CODE § 399.12 (h)(2)

<sup>9</sup> See the final order (p.44-46) as well as sections 4.1.2.3.2 (conclusions on p.22-27) and 4.2. Available at: [http://docs.cpuc.ca.gov/word\\_pdf/FINAL\\_DECISION/86954.pdf](http://docs.cpuc.ca.gov/word_pdf/FINAL_DECISION/86954.pdf).

being used for the RPS, i.e. delivered to utility customers for compliance. We do not believe that this conflicts with a ODOE or WREGIS position stating that the emissions factor attribute is contained in the REC and an import with an assigned specified source factor represents a claim on the REC. This position does not determine policy. States can agree on this point and then make their own policy decisions. California can allow those RECs to be eligible in its programs, and Oregon could decide not to.

5. One stakeholder asked how this same problem can be avoided in the future as cap-and-trade and RPS programs expand across the West and the country.

This double counting risk can be prevented by the state with a cap-and-trade program that includes electricity imports. That state can simply require RECs for imported renewable energy—require that the RECs associated with imported renewable energy be imported with the power and retired in that state. They need not be retired at the time of the import and can be freely traded within that state. WREGIS can be used to track these RECs.

Please let me know if we can provide any further information or answer any other questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Todd Jones', with a stylized flourish at the end.

Todd Jones  
Senior Manager, Policy and Climate Change Programs



**Board of Directors:**  
Don Hooper  
Bob Wiggins  
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7/13/2017

Rebecca Smith, Senior Policy Analyst  
Oregon Department of Energy  
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Salem, OR 97301

**RE: Comments on potential policy on RECs associated with dispatch under the Western EIM**

Rebecca,

Clatskanie People's Utility District appreciates the opportunity to provide comments to the two questions posed in the June 23, 2017 letter following a stakeholders meeting on June 15, 2017.

**1. Does the definition of a REC in ODOE's RPS administrative rules (OAR 330-160-0015) include the direct greenhouse gas zero-emissions attributes associated with renewable energy generation?**

The definition of a REC at OAR 330-160-0015 doesn't include the words "direct" or "zero-emissions". This is appropriate because SB 838, the enabling statutes for Oregon's Renewable Portfolio Standard (RPS) does not mention zero-emission attributes. Instead, the definition of a REC for Oregon's RPS adopted in OAR 330-160, which is consistent with ORS 469A.025, focuses on the source or type of generator.

The lack of any mention of "zero-emission" or "emissions" in the RPS was not an oversight on the part of the Oregon Legislature. While the goal of the RPS is to reduce the amount of GHG emissions from the electric utility sector in Oregon, the means of accomplishing that goal is to require all electric utilities to serve a growing percentage of their retail load with qualifying renewable energy. To demonstrate compliance with the standard Oregon's electric utilities are (or will be) required to retire the applicable number of RECs each year.

The legislation adopting Oregon's RPS intended compliance to be measured by the volume of RECs associated with qualifying renewable resource generation, not emission reductions.

**2. Does the California Air Resource Board's assignment of a zero-emissions factor to renewable energy imported into California via the EIM constitute a claim on the RECs associated with that renewable energy?**

No. The CAISO does not claim RECs associated with increased renewable generation dispatched as a result of participation in the EIM.<sup>1</sup>

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<sup>1</sup> Under CEC rules governing the RPS, for a REC associated with generation located outside of California to qualify as a Bucket 1 or 2 compliance REC it is required to procure transmission into the CAISO and include specific

At the June 15 stakeholder meeting it was suggested that allowing an Oregon utility to retain and use RECs associated with renewable energy “imported” into California would result in double-counting the zero-emissions environmental attributes of the REC. This statement could only be true if California entities responsible for reporting GHG emissions treat renewable energy not as zero-emission energy, but as avoided emissions; which is pretty much the definition of a carbon offset. To our knowledge, converting a REC into a carbon emission offset is not supported by any state or federal regulations.<sup>2</sup>

Oregon has adopted (at least) two sets of regulations intended to address the state’s policy goal to reduce GHG emissions. Oregon’s RPS require Oregon utilities to prepare annual reports to either OPUC or ODOE demonstrating compliance with the standard by showing a sufficient volume of RECs have been retired. Separate regulations require Oregon utilities to prepare annual reports to the Oregon DEQ detailing GHG emissions. Emissions from renewable generation are reported as zero emissions, the same as California.<sup>3</sup> These two sets of regulations are independent of each other. California regulations on RPS and emissions-related regulations on cap-and-trade appear to be similarly independent compliance obligations.

We suspect the reason this issue has surfaced is due to the historic differences between voluntary programs to reduce GHG emissions, which emerged in the 1990s, and RPS legislation passed a decade later. Voluntary programs started as a means for individuals and organizations to take action on reducing GHG emissions by supporting the construction of new renewable resources. “Green-tags”<sup>4</sup>, which represented the environmental attributes of renewable resources, were marketed as commitments to help finance renewable generation that would result in X metric tons less CO<sub>2</sub> being emitted into the atmosphere. Voluntary programs, including utility voluntary green-power programs, often still promote participation by creating marketing information couched in terms of avoided emissions.

None of the state RPS programs we am familiar are framed in terms of avoided emissions; they simply mandate utilities to procure a minimum amount of renewable energy each year. There is no additional requirement for utilities to demonstrate a reduction of Y metric tons CO<sub>2</sub> to achieve RPS compliance.

Perhaps it is overdue to recognize and accept that voluntary programs and mandatory programs, while both having the goal of reducing GHG emissions, are not identical. Actions in one program may violate policies in the other. The voluntary Green-e program does not allow renewable generation from projects over 15 years old to qualify for its program while state RPS have no such sunset provisions on resources. Even the various state RPS regulations disagree; California, Oregon, and Washington allow

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information on the power schedule e-tag. Energy dispatched under the EIM has neither transmission nor an e-tag, so RECs from EIM generation won’t meet CEC delivery guidelines despite being “deemed” imported by CAISO.

<sup>2</sup> See page 4 at <https://resource-solutions.org/wp-content/uploads/2015/08/RECsOffsetsQA.pdf> . At the workshop there was also a claim that if the REC generated as a result of the EIM was transferred or sold to a California entity then it would not be considered double-counting. This makes no sense. If the environmental attributes of a REC have been “claimed” as zero-emission energy under California’s cap-and-trade such that they are no longer available for an Oregon utility to use for RPS compliance, then these RECs should also be considered double-counting for any RPS compliance program, including California’s program.

<sup>3</sup> We am unsure how California regulations treat biomass generation, but Oregon DEQ reports require emission reports to separately track Anthropogenic and Biogenic emissions.

<sup>4</sup> Green-tags were later rebranded as “Renewable Energy Certificates”. It’s possible that the term RECs arose from RPS legislation, and the voluntary markets adopted their nomenclature to match the larger mandatory programs.



different resource technologies to qualify as renewable. Oregon and California utilities purchase RECs associated with hydro plants located in Washington that do not qualify in that state's RPS.

WREGIS was created with the policy that each state / province / program is allowed to establish its own standards of what qualifies under its program. We recommend that ODOE inform WREGIS that Oregon respectfully disagrees with the conclusion of the WREGIS Committee and will not require Oregon utilities to retire RECs associated with dispatch in the EIM.

Finally, we wish to make two additional comments, not specifically requested.

First, we do not believe Oregon's RPS legislation allows ODOE to develop regulations that would require an Oregon utility to retire RECs associated with EIM dispatch. Oregon's RPS statute says that to be a bundled REC the qualifying electricity must be delivered to BPA system or an Oregon utility system.<sup>5</sup> Further, ORS 469A.130 (2) states that the validity of a bundled REC is not affected by substitution of other electricity for the qualifying electricity at any point of time after generation. Therefore, transmitting qualifying electricity out of the state, because of EIM or any other reason, does not invalidate the bundled REC status.

Second, if the decision by the WREGIS Committee were adopted by all WREGIS participants it would likely have the unintended consequence of slashing the benefits of the Western EIM. The entire purpose of forming the EIM was to increase utilization of renewable resources through greater diversity. But, as Mary Wiencke of PacifiCorp stated at the June 15, 2017 stakeholders meeting its renewable resources have been built to serve retail customers and are being paid for by those same customers and PacifiCorp cannot unilaterally render any RECs from those resources unusable. It is unlikely that any utility would act differently. To our knowledge no California utility has retired the RECs associated with increases in California renewable generation resulting from the EIM.

Sincerely,

Eric Hiaasen  
Energy Resources & Services Manager  
Clatskanie People's Utility District

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<sup>5</sup> It also allows delivery elsewhere for subsequent redelivery.



June 14, 2017

Rebecca Smith  
Oregon Department of Energy  
550 Capitol St, NE  
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Sent via email

RE Treatment of RECs associated with energy sold into the EIM

The Community Renewable Energy Association (CREA) appreciates the opportunity to comment on this interesting question. CREA is not surprised that this issue comes up, appreciates the complexities involved and commends ODOE for generating discussion on this matter.

CREA understands that ODOE is seeking comment on the fundamental question as to if RECs associated with power sold into California through the EIM market and counted as zero emissions under the California cap and trade program should be retired or conversely if that REC can be utilized toward compliance with RPS obligations in states other than California.

CREA further understands that WREGIS has opined on this matter stating that “all the attributes of a REC as defined by the Operating Rules need to be intact for it to remain active within WREGIS. In the case of carbon attributes being claimed by the buyer of the energy, the REC would need to be retired in WREGIS.....”

CREA also understands that ODOE’s rules are based upon and directly references WREGIS’ rules. It seems reasonable that, absent some subsequent action, generation reported as zero-emission generation under the CA cap and trade program cannot then be used to comply with Oregon’s or a state other than California’s RPS requirement given that those states programs are operating under WREGIS rules. CREA believes that utilizing the REC associated with generation reported as zero-emitting for CARB compliance and then using the same REC for RPS compliance outside of California is essentially double counting that REC.

CREA also believes that it is beneficial for states in the west and their utilities to operate under a commonly understood and administered framework of rules, in this case those of WREGIS. Electricity has been, and under an EIM will likely be increasingly sold in interstate commerce. Furthermore most of the western states (and perhaps more germane the generation and load from those states) have some type of RPS and those requirements will be significantly increasing in Oregon and California over time. While, as one stakeholder commented, it is within the prerogative of individual states to adopt differing rules for their individual state's RPS compliance, CREA believes a more uniform approach across states under WREGIS guidelines is much preferable. To the extent that such a uniform approach poses challenges for any individual state, CREA encourages the states to work together to find mutually agreeable solutions.

CREA does have one area of concern in this matter however, and requests that ODOE work to ensure that WREGIS does not "overcorrect" in response to the narrow instance of double counting in this instance of the EIM. Specifically, CREA believes that carbon offsets generated in the production of a renewable fuel *prior to* the separate process of combustion of that renewable fuel to generate electricity and RECs tied to that electricity generation does in fact result in the production of separate environmental attributes under ODOE's and WREGIS's current rules: (1) the carbon offset tied to production of the fuel, and (2) the REC tied to the generation of electricity from the renewable fuel. This is common, for example, at landfill gas plants or at a dairy digester, which, unlike a wind or solar farm, create carbon reduction from the status quo through reduction replacement of methane with a biogas. The right to separately convey the carbon offsets from such facilities is reflected in the Oregon Public Utility Commission's standard contracts for renewable avoided cost rates – where the renewable qualifying facility sells the energy and RECs to the utility but retains ownership of any other environmental attributes not necessary for Oregon RPS compliance. ODOE and WREGIS should be careful not to upset the settled expectations of parties involved in production and sale of such carbon offsets separately from RECs. For these methane consuming / reducing generators, CREA believes it may be useful to clarify their treatment in a way that recognizes how their GHG reduction differs from the zero emission characteristics of wind and solar (as an example).

CREA appreciates the opportunity to submit these comments and looks forward to further discussion and resolution of this question.

Sincerely,  
s/

Brian Skeahan  
Executive Director

## Comments to the Oregon Department of Energy on Issues related to accounting of RECs and GHGs

The Greenhouse Gas Management Institute (GHGMI) is a non-profit organization with a mission of building and supporting a global community of experts with the highest standards of professional practice in measuring, accounting for, auditing and managing GHG emissions. This effort is critical to ensuring that market mechanisms, national targets, policy responses, and infrastructure investments to address climate change are effective and credible, as well as a valuable source of new critical jobs.

GHGMI's Research Program conducts forward-looking independent research. In keeping with the Institute's goal of supporting the development of the social infrastructure necessary to effectively implement future climate change policies at all levels (e.g., from the consumer to international treaty compliance), the Institute's Research Program operates to extend the reach of scholarly research to GHG management. Scientific inquiry is necessary to guide long-term planning and investment with respect to the design of the GHG-related performance metrics and quality assurance systems (the foundation of GHG mitigation policies and measures). One of the core research projects at GHGMI produces studies on the impacts of policies related to GHG accounting, renewable energy credits (RECs), and other green power instruments.

We are, therefore, providing comments to the Oregon Department of Energy (ODOE) on these issues related to RECs, the Oregon renewable portfolio standard (RPS), and renewable energy imported into California via the energy imbalance market (EIM) and counted towards California's cap and trade program.

ODOE has requested stakeholders to respond to two specific questions:

1. Does the definition of a REC in ODOE's RPS administrative rules (OAR 330-160-0015) include the *direct* greenhouse gas zero-emissions attributes associated with renewable energy generation?
2. Does the California Air Resource Board's assignment of a zero-emissions factor to renewable energy imported into California via the EIM constitute a claim on the RECs associated with that renewable energy?

Based on our research work, we find that the answer to both questions is no. The underlying logic producing an alternative answer is grounded in faulty assumptions and dysfunctional definitions of RECs. Specifically, the assumption that there is just one type of REC, that "environmental attributes" is a useful or meaningful term in the context of tradable environmental commodities, and that all RECs legitimately convey quantifiable environmental benefits. The following peer-reviewed journal references (presented in order of relevance to questions, copies attached in transmittal) support and explain the erroneous logic behind treating RECs as transferring or conveying GHG emission claims or emission reduction claims.

Gillenwater, M., 2008c. ["Redefining RECs \(Part 2\): Untangling certificates and emission markets,"](#) *Energy Policy*, Volume 36, Issue 6, June 2008, Pages 2120-2129.

Gillenwater, M., 2008b. "[Redefining RECs \(Part 1\): Untangling attributes and offsets,](#)" *Energy Policy*, Volume 36, Issue 6, Pages 2109-2119.

Gillenwater, M., Lu, X. & Fischlein, M., 2014. "[Additionality of wind energy investments in the U.S. voluntary green power market.](#)" *Renewable Energy*, 63, pp.452–457.

Gillenwater, M., 2013. "[Probabilistic decision model of wind power investment and influence of green power market.](#)" *Energy Policy*, 63, pp.1111–1125.

We are happy to respond to any questions from ODOE that this research work may provoke.

Sincerely,

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**From:** LEisenberg@ovuspartners360.com [mailto:LEisenberg@ovuspartners360.com]  
**Sent:** Sunday, June 25, 2017 11:47 AM  
**To:** SMITH Rebecca \* ODOE <Rebecca.Smith@oregon.gov>  
**Cc:** cloustonenergy@aol.com  
**Subject:** Comments on REC as Compliance with RPS Policy

Dear Ms. Smith: Thank you for the opportunity to comment on the REC compliance with RPS question.

As a renewable energy / net zero energy project developer, and as a member of the boards of several non-profit organizations that care about climate change, and a long time participant in energy conservation and renewable energy technology development, I do have mixed feelings on whether REC's should be allowed to serve as a component of compliance with RPS. But, in short, I do not favor the concept that REC's should be allowed to offset RPS requirements.

As a project developer, REC's do provide an economic enhancement that encourages renewable energy project development which may not otherwise occur. My preferred approach as evidenced by the programs in some states is to require utility providers to purchase REC's that become available in their home state with support from funds provided by public interest charges.

However, I do not think the benefit from REC's to project development especially given the volatility of the national and international marketplace offsets the environmental cost of allowing utilities to continue their bad behavior by burning fossil fuels to make electricity. I also object to entities, public and private, who claim to be net zero energy and carbon free due to their purchase of enough REC's and carbon credits (when available) to cover what they perceive as 100% of their energy demand and carbon footprint while doing nothing about their current energy demand.

Given the highly competitive economic nature of renewable resources, the availability of grid scale energy storage solutions, and the economic benefit associated with the manufacturing jobs, administrative jobs, installation jobs, not to mention our nearness to an irreversible climate tipping point, it is critical that we support a massive effort to move all energy generation to renewable resources. The ability to claim compliance through purchase of REC's is a deceptive process that does not truly move the built environment to the net zero energy standard that it can achieve in short order.

Building codes need to be immediately changed to mandate a net zero energy standard for all building types, existing buildings need to be retrofit to net zero, and utility scale energy projects using all available forms of renewable energy need to be undertaken with as much subsidy as possible. Without this type of effort, our other policies will not matter much as the Earth will not be a suitable place to live.

I applaud the move to highly aggressive RPS standards (which I believe should be 100%), and do not support the proposal that REC's purchased from near and far will come anywhere near solving the problem that we face.

Thank you for the opportunity to comment on this policy proposal.

Sincerely,

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July 14, 2017

***VIA ELECTRONIC DELIVERY***

Oregon Department of Energy  
550 Capitol Street N.E.  
Salem, OR 97301

Attention: Rebecca Smith

**RE: Public Comment on Renewable Energy Certificates Associated with Energy Imported into California via the Energy Imbalance Market**

Ms. Smith:

Pacific Power appreciates this opportunity to comment on the Oregon Department of Energy's (ODOE) request for public comment on renewable energy certificates (RECs) associated with energy imported into California via the energy imbalance market (EIM). ODOE has requested stakeholder comments on two specific questions—responses to each of these questions are below.

In addition to responses to ODOE's specific questions, PacifiCorp also strongly recommends that ODOE take a position with respect to the role of the Western Renewable Energy Generation Information Systems (WREGIS) in this matter. WREGIS is critical to the effective functioning of Western states renewable portfolio standards. To enable the effective use of WREGIS for multiple states' RPS programs, WREGIS is designed to serve a wide range of policy options and program designs. The interaction of RPS and greenhouse gas programs, and the role of RECs therein, are important policy considerations for states. We hope ODOE's policy conclusions on this matter will encourage WREGIS to continue to accommodate the policy choices of Oregon and all other states that rely on WREGIS. At the June 15 stakeholder meeting, it was suggested that if ODOE adopts a policy that is contrary to WREGIS policy, Oregon would be required to seek an alternative tracking mechanism or platform. This is not acceptable—by rule the Oregon RPS requires entities to utilize WREGIS for REC tracking. Moving to a different tracking system would impair the marketability of Oregon RECs and renewable energy to states other than Oregon. It is not WREGIS's role to dictate states' policies or to preclude a state's use of WREGIS if WREGIS disagrees with that particular state's policy.



**1. Does the definition of a REC in ODOE’s renewable portfolio standard (RPS) administrative rules (OAR 330-160-0015) include the *direct* greenhouse gas zero-emissions attributes with renewable energy generation?**

*General Comments on Oregon Definition of REC*

As we will describe in our response to ODOE’s second question, interpreting Oregon’s definition of REC so broadly as to make it unworkable and inflexible in application will lead to absurd results and a host of negative unintended consequences. From the perspective of implementing a RPS, the most sensible and effective use for RECs is as a way to track and verify compliance with the RPS and ensure that renewable megawatt hours are not used for RPS compliance in more than one state or sold into the voluntary market. Attempting to go beyond this and identify and track any “use” of any aspect of all of the myriad environmental, economic, and social benefits associated with renewable energy generation would likely be impossible as well as impractical. In particular, the interaction between carbon and RPS programs should be considered carefully in a holistic way to ensure that policy and environmental objectives are not hindered by an overly prescriptive interpretation of this very broad definition.

*Analysis of REC Definition Language*

The definition of a REC, found in OAR 330-160-0015, encompasses “*the* environmental, economic, and social *benefits* associated with the generation of electricity from renewable energy sources,” indicating some discretion in terms of which benefits are included as well as making clear that what is included in the REC must be a “benefit” and not merely an “attribute.” Therefore, to be included at all in the definition of a REC, the *direct* greenhouse gas zero-emissions attribute must, in and of itself, constitute an environmental, economic, or social *benefit*. However, the primary *benefit* associated with the zero-emission *attribute* of renewable energy generation is its potential to replace or displace generation that emits or would emit greenhouse gas emissions somewhere else on the interconnected electric system. In the context of energy imported into California, this equates to a reduced compliance obligation under California’s cap-and-trade program. This means that Oregon’s definition of a REC includes the avoided emissions *benefit* and not simply the zero-emissions *attribute* of renewable energy generation. For the reasons explained below, Oregon should conclude, as California has,<sup>1</sup> that RECs associated with energy imported into California do not have avoided emissions value.

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<sup>1</sup> The California Public Utility Commission’s definition of a REC in the CPUC’s *Decision On Definition And Attributes Of Renewable Energy Credits For Compliance With The California Renewables Portfolio Standard*, CPUC D.08-08-028 (Aug. 21, 2008) provides in Appendix B: fn. 1: “Avoided emissions may or may not have any *value* for GHG compliance purposes. Although avoided emissions are included in the list of Green Attributes, this inclusion does not create any right to use those avoided emissions to comply with any GHG regulatory program.” (emphasis added). Likewise, the WREGIS Operating Rules provide on pp. 4-5, fn. 2: “Avoided emissions may or may not have any value for complying with any local, state, provincial, or federal GHG regulatory program. Although avoided emissions are included in the definition of a WREGIS Certificate, this definition does not create any right to use those avoided emissions to comply with any GHG regulatory program.”

**2. Does the California Air Resources Board’s (ARB) assignment of a zero-emissions factor to renewable energy imported into California via the EIM constitute a claim on the RECs associated with that renewable energy?**

For a wide variety of reasons, PacifiCorp recommends that ODOE conclude that ARB assignment of a zero-emissions factor to renewable energy imported into California via the EIM does *not* constitute a claim on the REC such that it cannot be used for Oregon RPS compliance.

As an initial matter, it is critical to note that, to PacifiCorp’s knowledge, ODOE has not defined what it means to “claim” a REC nor has this term generally been used in the context of Oregon RPS compliance. The term “claim” is extensively used in the context of the Center for Resource Solution’s “green-e” and other voluntary, non-RPS REC trading literature. It is also referred to in the Federal Trade Commission (FTC) Guides for the Use of Environmental Marketing Claims which help marketers avoid making environmental marketing claims that are unfair or deceptive under Section 5 of the FTC Act, 15 U.S.C. 45. These regulations apply to claims about the environmental attributes of a product, package, or service in connection with the marketing, offering for sale, or sale of such item or service to individuals.<sup>2</sup> Specifically, the guides and FTC Act refer to claims by entities marketing to consumers and are designed to prohibit deceptive acts and practices.<sup>3</sup> When using RECs for RPS compliance or when reporting energy as zero-emitting to ARB, entities are not being “deceptive” to consumers within the meaning of the regulations. Complying with California mandatory reporting requirements is very different than making environmental marketing claims to individuals. Regulatory requirements are in place to achieve specific environmental or other policy objectives. Public reporting does not deceive consumers; rather it accomplishes the opposite. Oregon should not simply assume the adoption of the term “claim” as it is used by the Center for Resource Solutions in voluntary markets without careful consideration of the policy implications of doing so. As will be explained below, if reporting energy as zero-emitting to ARB prevents the use of the associated RECs for Oregon RPS compliance, both California’s cap-and-trade and Oregon’s RPS programs could be hindered by making it more difficult to integrate renewables into the electric system.

Though ODOE’s specific question is focused on energy imported into California via the EIM, this issue has much broader policy implications for both California and Oregon. California’s cap-and-trade program and Oregon’s RPS program were not designed to interact. Though the programs have functionally the same policy objective—to reduce emissions from the electricity sector—the California program is based on emissions generated while the Oregon RPS program is based on renewable energy produced. To address the interaction between the California cap-and-trade and California RPS programs, the California Energy Commission concluded that reporting energy as zero-emitting does not preclude the use of the associated REC for RPS compliance.<sup>4</sup> In addition, though the California definition of REC specifically includes avoided emissions, the California Public Utilities Commission (CPUC) concluded that “this definition

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<sup>2</sup> 16 C.F.R. Part 260, published October 12, 2012 (77 Fed. Reg. 62124).

<sup>3</sup> *Id.* at 62125.

<sup>4</sup> California Energy Commission, Eligibility Guidebook, 9th ed., p. 60, fn. 43: “Use of a REC for compliance with the California RPS does not preclude an [Load Serving Entity]’s ability to report a specified import or use the RPS adjustment in accordance with the California Air Resources Board’s [Program]. The CEC has similar language in the 2015, 8th edition of its Eligibility Guidebook on p. 60, fn. 35.

does not create any right to use those avoided emissions to comply with any [greenhouse gas] GHG regulatory program.”<sup>5</sup> The CPUC went on to conclude that:

[O]nce a GHG cap is imposed, RPS-eligible generation subject to a cap *never avoids emissions*. The ‘avoided emissions’ will continue to be included in the REC, but the avoided emissions value will be zero; the balancing [greenhouse gas] GHG emissions value of the null power will therefore also be zero. Thus—assuming that ARB adopts this analysis—*our characterization of the REC will not require any RPS-eligible generation with zero [greenhouse gas] GHG emissions to need allowances when delivered to the California grid.*”<sup>6</sup>

For these reasons, California does not require the retirement of the associated REC when energy is reported as zero-emitting to ARB nor is the REC prohibited from use for compliance with California’s RPS. This is sensible policy and ensures that the two programs are designed to interact; a different conclusion would result in the absurd outcome of effectively rendering any renewable generation produced outside of California as ineligible for California’s RPS even though much of that generation was actually produced specifically to meet RPS mandates. For similar reasons, the Western Climate Initiative (in which Oregon participated), reached the same conclusion that RECs simply have no role in carbon programs.<sup>7</sup> As in California’s cap-and-trade program, in the WCI RECs would not be used to reduce a greenhouse gas compliance obligation (i.e., they cannot be used as offsets), and null power is not attributed an emissions value.

The same logic applied by California’s regulators applies to Oregon’s RPS program. Because California’s cap-and-trade program covers imported energy, emissions imported into California are effectively capped. Therefore, the avoided emissions *benefit*, which may be included in the definition of Oregon’s REC, has no value when imported into California and is therefore not “used” when reported to ARB. As we note in our response to ODOE’s first question above, there is not a distinction between a direct zero-emission attribute and the indirect avoided emissions benefit of renewable energy generation, and this should not be the basis of reaching an alternative conclusion.

At the June 15 stakeholder meeting, it was suggested that California’s policy of allowing RECs to be used for RPS compliance even when the underlying energy is reported as zero-emitting to ARB is appropriate because in this instance the renewable energy is delivered to California and therefore California load has a substantiated claim to the REC. In contrast, it was argued, the REC may not be “claimed” in Oregon and used for RPS compliance purposes if the underlying energy was delivered to California and reported as zero-emitting. For a number of reasons, this argument does not withstand further scrutiny. First, the Oregon RPS does not have a delivery requirement so the fact that the energy was “delivered” to California is irrelevant—a deliverability requirement should not be incorporated absent statutory changes. Second, in particular during the spring and other periods of low load, significant amounts of renewable

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<sup>5</sup> *Decision on Definition and Attributes of Renewable Energy Credits for Compliance with the California Renewables Portfolio Standard*, D.08-08-028 at fn 70 (August 21, 2008).

<sup>6</sup> (*Id.* at 24, footnote omitted.) (emphasis added).

<sup>7</sup> <http://www.westernclimateinitiative.org/document-archives/Electricity-Team-Documents/Treatment-of-Renewable-Energy-Credits-in-the-WCI-Cap-and-Trade-Program/>

energy are exported out of California to neighboring states. This does not preclude this energy from counting toward California's RPS requirements. These exports have resulted in significant environmental benefits in the form of reduced emissions outside of California.<sup>8</sup> Precluding the use of exports from California RPS compliance, which under this theory could presumably be accomplished if any states neighboring California adopted reporting regimes for imported energy, would have the negative consequence of reducing the incentive for California's renewable energy production.

Precluding the use of RECs associated with energy imported into California via the EIM for Oregon RPS compliance could have negative policy and environmental consequences. Incorporating this policy into the operation of the EIM creates market barriers and inefficiencies: entities participating in the EIM do not know beforehand which resources will be deemed delivered to California by the California Independent System Operator (ISO) and do not have control which resources are identified as delivered to California. If the RECs associated with energy deemed delivered to California via the EIM are considered used when reported as zero-emitting to ARB, it becomes untenable for PacifiCorp to allow any RPS-eligible resources to be delivered to California via the EIM, since PacifiCorp retains all RECs for Oregon RPS compliance on behalf of its Oregon customers. As more states adopt carbon and RPS policies, these types of market restrictions could proliferate and cause market inefficiencies that hinder the ability of the market to integrate greater and greater quantities of variable renewable energy. In addition, such policies can diminish interest in expanding an organized energy market in the West, which has the potential of greatly increasing the ability of the existing grid to integrate renewables.

The methodology employed by the ISO to identify which resources are imported into California also highlights another problematic aspect of adopting a policy where RECs associated with energy reporting as zero-emitting to California are precluded from use for Oregon RPS compliance. It is not possible, physically, to identify where energy produced from a particular resource is ultimately consumed. As a result, any effort to identify where energy is delivered must apply some allocation or approximation methodology. Outside of the EIM, California uses contractual arrangements and electronic tags as proxies for energy delivered to California. For the EIM, the ISO developed a specific methodology, based on greenhouse gas bid adders in the EIM, for identifying the resources that are imported to California. If other states adopt carbon policies that account for imported emissions, they may adopt different methodologies for identifying resources imported in to their states. Conflicting regulatory methodologies could result in the same energy being allocated to different states and, if RECs were considered used when the underlying energy is reported a zero-emitting, would severely complicate the ability for individual entities to account for RECs.

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<sup>8</sup> Driven in part by solar energy exported from California, PacifiCorp's 2016 carbon dioxide emissions were down twelve percent as compared to a five year average.

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Due to all of the foregoing, ODOE should not conclude that the assignment of a zero-emissions factor to renewable energy imported into California via EIM constitutes a claim on the RECs associated with that renewable energy. PacifiCorp is happy to discuss these issues in more detail at your request. Please contact me with any questions at (503) 813-5058.

Sincerely,

Mary Wiencke  
Dir. Environmental Policy & Strategy

**Comments of Portland General Electric Company to the  
Oregon Department of Energy on Treatment of Renewable Energy Credits for Energy Deemed  
to be Imported to California via the Energy Imbalance Market  
July 14, 2017**

Portland General Electric Company (“PGE”) is pleased to provide comments to the Oregon Department of Energy (“ODOE”) on the appropriate treatment of Renewable Energy Credits (“RECs”) for energy deemed to be imported to California via the Energy Imbalance Market (“EIM”) and thereby covered by California’s cap and trade program. PGE has signed an implementation agreement with the California Independent System Operator (“CAISO”) to become the fifth utility outside the State of California to join the EIM with a scheduled go-live date of October 2017. With the expansion of the EIM, as well as the potential for development of a multi-state ISO in the future, increasing Renewable Portfolio Standard (“RPS”) targets and the possibility of additional Western state greenhouse gas (“GHG”) programs, it is essential that Oregon and other states think clearly and with foresight about the interaction between energy, carbon and REC markets to ensure that they are appropriate and do not interfere with renewable energy development and integration.<sup>1</sup>

ODOE has initiated a stakeholder process to seek input on the following two questions regarding REC treatment for renewable energy deemed to be imported to California via the EIM:

1. Does the definition of a REC in ODOE’s RPS administrative rules (OAR 330-160-0015) include the direct greenhouse gas zero-emissions attributes associated with renewable energy generation?
2. Does the California Air Resource Board’s (“CARB”) assignment of a zero-emissions factor to renewable energy imported into California via the EIM constitute a claim on the RECs associated with that renewable energy?

As discussed below, PGE believes the correct answer to both of these questions is no. We recognize that these are complex questions; however, it is essential that Oregon, and other states in the West, get the answers right. Hastily-conceived policy decisions on REC treatment and renewable energy transfers to California in the EIM could have unintended, negative repercussions such as an overall decrease in the participation of renewable energy resources in the EIM leading to additional renewable curtailment or integration expense. We think it is important to note that California’s policy decision here is well-formed; Oregon should follow its lead.<sup>2</sup>

PGE recommends that at the end of this process, ODOE issue formal guidance clarifying these questions to help provide certainty to EIM entities and to help ensure that the EIM operates as intended. We also recommend that ODOE request that Western Renewable Energy Generation Information System (“WREGIS”) rescind its draft opinion.

<sup>1</sup> PGE supports the comments submitted by the Western Power Trading Forum.

<sup>2</sup> California Energy Commission, Renewable Portfolio Standard Eligibility Commission Guidebook, 9th ed., p. 60, fn. 43: “Use of a REC for compliance with the California RPS does not preclude an [Load Serving Entity]’s ability to report a specified import or use the RPS adjustment in accordance with the California Air Resources Board’s [Program].” The CEC has similar language in the 2015, 8th edition of its Eligibility Guidebook on p. 60, fn. 35.

**Does the definition of a REC in ODOE’s RPS administrative rules (OAR 330-160-0015) include the direct greenhouse gas zero-emissions attributes associated with renewable energy generation?**

No. As stated in the ODOE stakeholder notice, WREGIS, the tracking system for RECs in the Western region, was asked to render an opinion on whether RECs associated with an energy bid into the EIM bound for California would need to be retired. WREGIS provided a draft opinion and stated that in the case of a zero emission claim, the RECs should be retired in WREGIS as one or more of the attributes was used by the buyer of the energy. PGE disagrees with this opinion as it is not grounded in the statutory language of Oregon’s Renewable Portfolio Standard.<sup>3</sup> The statute does not assert any GHG or zero-emitting attribute in a REC and specifically states in ORS 469A.135:

- (1) A bundled renewable energy certificate may be used to comply with a renewable portfolio standard if:
  - a. The facility that generates the qualifying electricity for which the certificate is issued is located in the United States and within the geographic boundary of the Western Electricity Coordinating Council; and
  - b. The qualifying electricity for which the certificate is issued is delivered to the Bonneville Power Administration, to the transmission system of an electric utility or to another delivery point designated by an electric utility for the purpose of subsequent delivery to the electric utility.*
- (2) An unbundled renewable energy certificate may be used to comply with a renewable portfolio standard if the facility that generates the qualifying electricity for which the certificate is issued is located within the geographic boundary of the Western Electricity Coordinating Council.*

In reviewing this specific statutory language, it is clear that a REC may be used to comply with the Oregon RPS if the generating facility is located within the WECC and the energy is delivered to an appropriate transmission system. Again, this section of the statute makes no claim that a REC must include the GHG or zero-emitting attributes of the energy. We further note that Oregon’s REC definition does not mention avoided emissions, but instead refers to “the environmental, economic and social benefits associated with the generation of electricity from renewable energy sources...”<sup>4</sup>

Additionally, PGE asserts that a REC is a compliance instrument for an RPS program and not a measure (or lack thereof) of GHG emissions. An RPS program should not be confused with a cap and trade program, or any other carbon pricing program, as the points of compliance for the two programs are completely different. These two programs can certainly interact in parallel with each other, but there should be no assumed overlap in demonstration of compliance. In addition, a cap and trade program and an RPS program track two separate mechanisms. A cap and trade program (or any other carbon pricing program) is concerned with the direct emissions of generating resources; however, an RPS program is concerned with the long-term procurement of renewable generation.

<sup>3</sup> Oregon Revised Statute (“ORS”), Chapter 469A.

<sup>4</sup> “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. OAR 330-160-0015(15)

For the reasons stated above, PGE does not believe a REC is intended to account for or represent the GHG or zero-emitting attribute of renewable generation and disagrees with the WREGIS opinion. As stated above, this conclusion is consistent with that taken by the California Energy Commission's ("CEC") interpretation of a REC and should be the conclusion of ODOE.<sup>5</sup>

*"Use of a REC for compliance with the California RPS does not preclude an LSE's ability to report a specified import or use the RPS adjustment in accordance with the California Air Resources Board's "California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms to Allow for Use of Compliance Instruments Issues by Linked Jurisdictions and Regulation for the Mandatory Reporting of Greenhouse Gas" (California Code of Regulations, Title 17, sections 95801 - 96022)."*

Additionally, the Western Climate Initiative ("WCI"), in which Oregon participated, reached the same conclusion that RECs should not play a role in a carbon program.<sup>6</sup> As in California's cap and trade program, in the WCI, RECs would not be used to reduce a greenhouse gas compliance obligation (i.e., they cannot be used as offsets), and null power is not attributed an emissions value.

#### **Does CARB's assignment of a zero-emissions factor to renewable energy imported into California via the EIM constitute a claim on the RECs associated with that renewable energy?**

No, CARB's mandatory GHG reporting and cap and trade programs distinguish between unspecified and specified power based on whether a particular resource can be identified as the source of the power. In the case of power that is imported bilaterally or through CAISO markets, the nature of the importer's contractual relationship with the power supplier determines if the power is specified or not. For power that is deemed delivered to California via the EIM, all resources are individually identified by CAISO, thus all EIM imports are considered specified imports under California's programs.

In no case does the attribution of a specified import depend on presentation or claim to a REC. For resources that are eligible under California's RPS program, REC serial numbers must be reported to enable verification that the energy from the same resources is not associated with the program's "RPS Adjustment", but this information is not a condition for reporting imported renewable power as specified with an associated zero-emission factor. In fact, CARB has explicitly clarified that directly delivered renewable power from which the REC has been separated must still be reported as specified power under its programs.<sup>7</sup>

#### **Benefits of the EIM and Effects of Potential REC Policy Decisions**

PGE has a strong commitment to renewable energy as demonstrated in 2016 with the support and passage of SB1547, which increases its RPS to 50% by 2040. To help achieve this commitment at least cost, PGE will be utilizing the efficient dispatch mechanisms and near-term optimization of the EIM. This

<sup>5</sup> Renewable Portfolio Standard Eligibility Commission Guidebook (June 2015), page 60, footnote 35.

<sup>6</sup> <http://www.westernclimateinitiative.org/document-archives/Electricity-Team-Documents/Treatment-of-Renewable-Energy-Credits-in-the-WCI-Cap-and-Trade-Program/>

<sup>7</sup> FAQ 1.1.6, Guidance for California's Mandatory Greenhouse Gas Emissions Reporting, Electric Power Entity Reporting Requirements Frequently Asked Questions.



market allows PGE, along with other regional utilities, to reduce the real-time costs associated with increased penetration of renewable resources by optimizing generating resources and load to take advantage of the episodic diversity in over- and under-production relative to forecasted demand. The Western EIM, when fully optimized, will also reduce curtailments of renewable resources allowing them to displace a greater quantity of higher-emitting generation in real-time dispatch. If we do not adopt thoughtful, consistent policies, we could disrupt this broadly beneficial framework, and thereby end up unnecessarily increasing total electricity sector emissions in the West.

The estimated economic and environmental benefits produced for customers both inside and outside of California since EIM's inception in 2014 have been substantial. In general, the economic, environmental, and reliability benefits realized by the EIM increase alongside the depth of the participating resource pool; the more resources that are available to be dispatched, the more inter-regional optimization and finding of a least-cost dispatch solution can occur. As an imminent joiner of the market, PGE wants to ensure that these benefits and the integrity of the EIM are not undermined by REC policy decisions.

Unfortunately, if ODOE adopts a policy similar to the draft WREGIS opinion, it is likely that Oregon utilities will be forced to limit the extent to which their eligible renewable energy resources participate in the EIM (either by deeming them undeliverable to California or by not including them as participating resources), which will not allow these benefits to be maximized. If the overarching goal is to limit GHG emissions from the electricity sector, policy decisions should be made to support renewable and zero-emitting generating resource integration throughout the West. Policies that discourage the participation of low carbon and renewable resources in this market will negatively impact PGE's, and the regions, ability to leverage this market to achieve a high-renewables future, reliably and economically.

## **Conclusion**

Again, PGE appreciates the opportunity to provide comments to ODOE on the appropriate treatment of RECs for energy deemed to be imported to California via the EIM. PGE does not believe a REC is intended to account for or represent the GHG or zero-emitting attribute of renewable generation and disagrees with the WREGIS opinion. PGE also requests that ODOE issue formal guidance to this point to help provide certainty going forward to Oregon utilities participating in the EIM.

For any follow-up communications, please contact Elysia Treanor at (503) 464-8528 or at [Elysia.Treanor@pgn.com](mailto:Elysia.Treanor@pgn.com) or Sunny Radcliffe at (503) 464-7329 or at [Sania.Radcliffe@pgn.com](mailto:Sania.Radcliffe@pgn.com).

July 14, 2017

Rebecca Smith  
Oregon Department of Energy  
550 Capitol Street NE  
Salem, OR 97301

VIA EMAIL

**RE: Comments of Renewable Northwest on Treatment of RECs Associated with Energy Imported into the California Energy Imbalance Market**

Dear Ms. Smith:

Renewable Northwest appreciates the opportunity to respond to the Oregon Department of Energy's ("ODOE") questions related to renewable energy certificates ("RECs"), the Oregon renewable portfolio standard ("RPS"), and renewable energy imported into California via the energy imbalance market ("EIM") that is reported for purposes of California's cap and trade program. Renewable Northwest is a nonprofit advocacy organization that seeks to facilitate the responsible development of renewable resources in the region. Maintaining REC and RPS integrity and preventing double counting is of paramount importance to us. We are also strong supporters of the EIM and seek to encourage EIM participation through appropriate policies and market structures.

Following a stakeholder meeting held on June 15, 2017, ODOE posed two questions for stakeholder comment:

1. Does the definition of a REC in ODOE's RPS administrative rules (OAR 330-160-0015) include the direct greenhouse gas zero-emissions attributes associated with renewable energy generation?
2. Does the California Air Resource Board's assignment of a zero-emissions factor to renewable energy imported into California via the EIM constitute a claim on the RECs associated with that renewable energy?

As discussed in these comments, we answer "yes" to both of these questions. However, we note that these questions raise additional ones as to other potential market implications regarding imports into California that extend beyond the EIM itself. To that end, we recommend additional stakeholder conversation prior to taking formal action on these issues.

**1. ODOE's REC Definition Includes the Direct Greenhouse Gas Zero-Emissions Attributes Associated with Renewable Energy Generation.**

ODOE's definition of a REC includes the direct greenhouse gas zero-emissions attributes associated with renewable energy generation. The direct emission associated with generation (either renewable or nonrenewable) is the emissions factor for that generation. Generation from renewable resources such as wind and solar has an emissions factor of zero. This emissions factor attribute is included in Oregon's definition of a REC.

ODOE defines a REC as “a unique representation of the environmental, economic, and social benefits associated with the generation of electricity from renewable energy sources. . . .”<sup>1</sup> Merriam-Webster defines “unique” as “being the only one” and “being without a like or equal.”<sup>2</sup> The use of the word “unique” in Oregon’s REC definition makes clear that a REC is the “only” representation of the various environmental, economic, and social benefits associated with renewable energy generation. Indeed, we are not aware of any language in Oregon’s RPS statutes or ODOE’s rules that requires or even suggests excluding any particular environmental, economic, or social benefits or attributes from the REC definition.

Similarly, the Western Renewable Energy Generation Information System (“WREGIS”) Operating Rules define RECs as including the direct emissions associated with renewable generation.<sup>3</sup> Importantly, WREGIS is Oregon’s only approved tracking system for generation used to comply with the Oregon RPS, and ODOE’s RPS rules require compliance with the WREGIS Operating Rules.<sup>4</sup>

An emissions factor of zero associated with renewable energy generation is an environmental benefit of that generation—and arguably, a social and economic one as well. In any case, we struggle to find a compelling argument that the direct emissions associated with renewable generation that has a zero emissions factor is somehow not an “environmental benefit” that is encompassed in Oregon’s definition of a REC.

## **2. CARB’s Assignment of a Zero Emissions Factor to Renewable Energy Imported into California via the EIM Constitutes a Claim on the RECs Associated with that Renewable Energy.**

If the California Air Resources Board (“CARB”) assigns a zero emissions factor to energy imported into California via the EIM, a claim is made on renewable benefits and attributes associated with that energy. However, absent further discussion, it is possible that making a policy statement to that effect could lead to negative consequences, such as disincentivizing participation in the EIM. Such effects could be significant, and more time is needed to explore and investigate them. In order to avoid such consequences, rather than reacting to CARB’s policy, stakeholders and decision-makers from across affected states should come together to design a policy on this issue that does not inadvertently harm one of the states.

The California Public Utility Commission (“CPUC”) defines a REC as including “all renewable and environmental attributes associated with the production of electricity from the eligible renewable energy resource.”<sup>5</sup> This definition seems to suggest that if CARB assigns a zero emissions factor to imported energy, then CARB is making a claim to a renewable or environmental attribute. As WREGIS does not allow disaggregation of certificates, a claim by California to an attribute included as part of the REC appears to constitute a California claim to the entire REC.<sup>6</sup>

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<sup>1</sup> OAR 330-160-0015(15).

<sup>2</sup> Merriam-Webster Dictionary, <https://www.merriam-webster.com/dictionary/unique>, (last accessed July 14, 2017).

<sup>3</sup> See definitions of “certificate” and “renewable and environmental attributes” in WREGIS Operating Rules (July 15, 2013).

<sup>4</sup> OAR 330-160-0020.

<sup>5</sup> California Public Utilities Code section 399.12(h).

<sup>6</sup> Western Renewable Energy Generating Information System, WREGIS Operating Rules (July 15, 2013).

As noted above, Oregon defines a REC as “a unique representation of the environmental, economic, and social benefits” associated with the electricity from renewable generation.<sup>7</sup> If CARB is making a claim on a renewable attribute associated with electricity from a renewable resource, then a REC originally associated with that same generation in Oregon would potentially be compromised, as the REC would no longer be a “unique representation” of environmental benefits. Furthermore, if California claimed environmental attributes associated with electricity imported into the EIM, and Oregon claimed the environmental benefits originally associated with that power through a REC, this would seem to result in double counting.

PacifiCorp presented that, under the California Mandatory Reporting Program, “all energy imported into California, including zero-emitting energy, must be reported to the [CARB],” and “[r]eporting null power is not allowed.”<sup>8</sup> It seems as though the CARB reporting requirement is leading to an emissions factor being applied to energy, which in turn leads to California making a claim on an environmental attribute of the power. This activity in California causes double counting concerns in Oregon, as our state’s administrative rules define a REC (which in this case was originally associated with the power imported into California) as a “unique representation” of environmental benefits.

### 3. Next Steps

Notwithstanding our affirmative answers to the two questions posed by ODOE, we recognize that there may be other potential broader market implications regarding imports into California beyond the narrow EIM question that ODOE has teed up with stakeholders. Just as CARB’s cap and trade rules have implications that extend beyond California’s borders, Oregon’s rules could also have implications outside of the state. Rather than finding ourselves in a situation where we may be reacting to each other’s policies, we recommend that Oregon decision-makers help facilitate additional conversation with potentially affected stakeholders in neighboring states and throughout the region so that our policies can be harmonized to the extent possible. At a minimum, it would be important for Oregon to better understand potential implications prior to taking formal action.

Thank you for the opportunity to comment.

*/s/ Dina Dubson Kelley*  
Chief Counsel, Renewable Northwest

*/s/ Michael O’Brien*  
Research Director, Renewable Northwest

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<sup>7</sup> OAR 330-160-0015(15).

<sup>8</sup> Renewable Energy Certificates Associated with Energy Imported into California via the Energy Imbalance Market, PacifiCorp Presentation at Oregon Department of Energy Stakeholder Meeting, June 15, 2017, [www.oregon.gov/energy/energy-oregon/Documents/2017\\_6\\_PacifiCorpREC\\_Presentation.pdf](http://www.oregon.gov/energy/energy-oregon/Documents/2017_6_PacifiCorpREC_Presentation.pdf)

**Comments of the Western Power Trading Forum  
to the Oregon Department of Energy on Issues related  
to Accounting of Renewable Energy and Greenhouse Gas Emissions  
July 14, 2017**

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## **Introduction**

The Western Power Trading Forum (WPTF) is pleased to provide input to the Oregon Department of Energy (ODOE) on its consideration of issues related to renewable energy certificates (RECs), the Oregon renewable portfolio standard (RPS), and renewable energy imported into California via the energy imbalance market (EIM) and counted towards California's cap and trade program. WPTF is an organization of power marketers, generators, investment banks, public utilities and energy service providers, whose common interest is the development of competitive electricity markets in the Western United States. WPTF has over 80 members participating in power markets throughout the west, including the EIM. Many of our members are also covered entities in the California cap and trade program, and participate as both buyers and sellers in the California and Oregon RPS programs.

With the expansion of the EIM, as well as the potential for development of a regional ISO and additional Western state programs to address greenhouse gas (GHG) emissions, it is essential that Oregon and other states think clearly about the interaction between energy, carbon and REC markets to ensure that are appropriate and do not interfere with renewable energy development and integration

ODOE has requested stakeholders to respond to two specific questions:

1. Does the definition of a REC in ODOE's RPS administrative rules (OAR 330-160-0015) include the *direct* greenhouse gas zero-emissions attributes associated with renewable energy generation?
2. Does the California Air Resource Board's assignment of a zero-emissions factor to renewable energy imported into California via the EIM constitute a claim on the RECs associated with that renewable energy?

WPTF considers the correct response to both questions to be no, for the reasons discussed below and recommends that ODOE issue a formal opinion clarifying these issues. We also recommend that ODOE request that WREGIS rescind its draft opinion

### ***RECs should not convey the direct emission attribute of the renewable resource***

As ODOE noted in its request for comment, its consideration of these issues has been prompted by concerns raised to and by the Western Renewable Energy Generation Information System (WREGIS), as to whether RECs associated with electricity imported into California and counted toward California's cap and trade program would be eligible for RPS compliance in other states.

As a starting premise, WPTF argues that there is no double-counting problem created by the interaction of a greenhouse gas (GHG) cap and trade program for the electric sector and an RPS program. The reason for this is two-fold. First, the points of compliance for the two programs are completely different. California's cap and trade program is effectively a source-based program; compliance obligations fall on electricity generators, and in the case of imports, on the importer based on the underlying emissions profile of the generator, if known, or the power system as a whole. Conversely, the compliance obligation for the RPS falls on load-serving entities.

Second, a cap and trade program and an RPS program track two separate things. A cap and trade program is concerned with the actual (direct) emissions of resources covered by the program, whereas an RPS is concerned solely with the procurement of renewable generation. RECs are instruments to track RPS compliance – they are not intended to track GHG emissions. To the extent that RPS programs address GHG benefits in defining the characteristics or ‘attributes’ of these RECs, the programs typically refer to ‘avoided emissions’ or the right to claim credit for avoided emissions.

Oregon’s REC definition does not mention avoided emissions, but instead refers to “the environmental, economic and social benefits associated with the generation of electricity from renewable energy sources...”<sup>1</sup> These environmental benefits should not be interpreted to include the direct emissions or emission factor of the underlying renewable generation because to do so leads to absurd results. Consider a hypothetical state that has a cap and trade program covering all in-state electricity generators (assume no electricity imports). Renewable generators would be subject to the cap, but because these resources are zero emission, they would not have a compliance obligation. Now the state adds an RPS program for its load-serving entities, which is met by acquiring and retiring RECs generated by renewable resources in the state. If the direct emissions or the emission factor of the underlying resource were considered to be part-and-parcel of the REC, then the procurement of RECs by LSEs would preclude renewable resources from reporting actual (zero) emissions and avoiding compliance obligations under the cap and trade program. This outcome would be absurd, and would economically disadvantage renewable resources.

California’s attribution of a zero-emission factor under the cap and trade program to renewable electricity that is imported into the state is exactly analogous to the hypothetical scenario assigned above because it results in the attribution of direct emissions to the renewable resource. With respect to the EIM in particular, we do not believe that there is anything unique about that market that would necessitate any different treatment vis-à-vis Oregon’s RPS. We recognize that the EIM currently overattributes low-emission power, including renewables, to California but we are confident the California Independent System Operator’s proposed “two-pass” approach<sup>2</sup> will significantly reduce this problem.

Some stakeholders have argued that the hypothetical scenario works because the REC and its environmental attributes are being claimed by a single state. The problem, according to those stakeholders, comes when energy is “claimed” by two separate states. These stakeholders argue that California’s attribution of the direct emissions of renewable generation that sinks in the state should thus invalidate those RECs for compliance with Oregon’s RPS. WPTF disagrees with this argument. Oregon’s RPS program clearly provides for the use of both bundled or

<sup>1</sup> “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. *OAR 330-160-0015(15)*

<sup>2</sup> <https://www.cao.com/Documents/RevisedDraftFinalProposal-EnergyImbalanceMarketGreenhouseGasEnhancements.pdf>

unbundled RECs for compliance.<sup>3</sup> If Oregon were instead to established a ‘deliverability’ requirements analogous to California’s bucket one, whereby only bundled RECs could be used for RPS compliance, then there would be a problem with the RPS recognizing RECs from energy that is claimed by another state. But because the Oregon statute explicitly allows for RECs from renewable generation anywhere in the WECC and allows the power to be sold separately, then it does not matter where power actually sinks.

For these reasons, WPTF strongly believes that RECs should not be considered to include the direct emissions or direct emission factor attribute of the renewable resource. We request ODOE to issue a formal opinion clarifying that the reference to environmental benefits in the REC definition does not include the direct emissions of the resource generating the REC. This approach is consistent with that taken by the states, including Oregon, participating in the Western Climate Initiative in 2010.<sup>4</sup> It is also consistent with the California Energy Commission’s interpretation of a REC.<sup>5</sup>

***California’s assignment of direct emissions to energy imported from renewable resources does not constitute a claim on RECs associated with that energy***

California’s cap and trade program distinguishes between unspecified and specified power based on whether a particular resource can be identified as the source of the power, and in the case of power that is imported bilaterally or through the CAISO markets, the nature of the importer’s contractual relationship with the power supplier. For power that is deemed delivered to California via the EIM, all resources are individually identified, thus all EIM imports are considered specified imports under California’s cap and trade program.

In no case does the attribution of a specified import depend on presentation or claim to a REC. For resources that are eligible under California’s RPS program, REC serial numbers must be reported to enable CARB to verify that energy from the same resources is not associated with the program’s “RPS Adjustment”, but this information is not a condition for reporting imported renewable power as specified with an associated zero-emission factor. In fact, CARB has explicitly clarified that directly delivered renewable power from which the REC has been stripped (i.e. null power) must still be reported as specified under its program.<sup>6</sup>

WPTF requests ODOE also clarify that it does not consider the attribution of emissions to a renewable resource under a cap and trade program, including the imported generation from renewable resources under the California cap and trade program, to be a claim against a REC.

<sup>3</sup> OAR 330-160-0025 states that “A bundled or unbundled renewable energy certificate may be used to comply with the RPS... “ and the REC definition in 330-16-0015 provides that “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.”

<sup>4</sup> <http://www.westernclimateinitiative.org/document-archives/Electricity-Team-Documents/Treatment-of-Renewable-Energy-Credits-in-the-WCI-Cap-and-Trade-Program/>

<sup>5</sup> See footnote 35 at

<https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahUKEwih5IbH8ePUAhVB4mMKHaG6DcsQFggpMAA&url=http%3A%2F%2Fwww.energy.ca.gov%2F2015publications%2FCEC-300-2015-001%2FCEC-300-2015-001-ED8-CMF.pdf&usg=AFQjCNHitD6YG5sBc7HKyMmyKNEUSjQaSw&cad=rja>

<sup>6</sup> See slide 7 at <https://www.arb.ca.gov/cc/capandtrade/meetings/20151214/rps350.pdf> and question 1.1.6. at <https://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep-power/epe-faqs.pdf>



Because the environmental benefits do not include direct emissions, attribution of direct emissions to a resource's output does not 'split' the REC, nor represent a claim on the REC.

**WREGIS Role**

WPTF believes that WREGIS's draft opinion inappropriately addresses policy issues that should be left up to the states. Individual states establish RPS program rules defining REC attributes, rules for deliverability or bundling, and when RECs must be retired. Although WPTF would like to see the states coordinate their renewable (and carbon) policies, this is not the role of WREGIS; WREGIS should be policy neutral.

WPTF recommends that ODOE request WREGIS rescind its opinion.