

**Testimony before the Senate Committee on Business and Transportation  
Regarding HB 4126-A  
February 25, 2014**

My name is John Charles and I am President of Cascade Policy Institute.

HB 4126-A proposes to increase the use of unbundled RECs for purposes of SB 838 compliance in certain circumstances. The problem with this is that RECs don't actually exist. They are a fraudulent commodity that can never be verified. Eventually this scam will become known to the public, and many people will be left holding piles of worthless certificates. The sooner the legislature begins phasing out RECs, the sooner we can repair the damage.

### **Background**

According to the Oregon Department of Energy, a REC is:

“A unique representation of the environmental, economic, and social benefits associated with the generation of electricity from renewable energy sources that produce Qualifying Electricity. One certificate is created in association with the generation of one megawatt-hour (MWh) of ‘qualifying electricity.’ The legal term ‘qualifying electricity’ refers to the electric generation that comes from plants that use designated renewable energy sources for generation by the Oregon RPS [Renewable Portfolio Standard] statute.<sup>1</sup> 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>2</sup>

The sole tracking system for overseeing the generation and purchase of renewable energy in Oregon is the Western Renewable Energy Generation Information System (WREGIS). When WREGIS receives information that one megawatt-hour of electricity has been generated by an account-holding energy producer, such as a wind farm operator, a REC is electronically created and deposited in the producer's WREGIS account.

Power companies in Oregon advertise that purchasing RECs can be used to offset carbon dioxide emissions from residential and commercial customers' electricity use. This, however, is a misrepresentation of: (1) the RPS compliance system; and (2) how the grid itself is organized.

The system does not involve a direct transfer of money between the customer and the producer of energy from a “qualified facility.” There is no requirement that any of the RECs be

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<sup>1</sup> See ORS §469A.010<sup>1</sup>, Qualifying electricity, <http://www.oregonlaws.org/ors/469A.010>

<sup>2</sup> “Renewable Energy Certificates.” Oregon Department of Energy. October 2<sup>nd</sup>, 2013.  
<http://www.oregon.gov/energy/RENEW/RPS/Pages/RPS-RECs.aspx>

proven specifically to have saved a certain amount of carbon dioxide from entering the atmosphere.<sup>3</sup>

A 2010 White Paper, prepared by the Environmental Tracking Network of North America, confirms this. It states:

“None of the current REC tracking systems, with the exception of the NARR (North American Renewables Registry), currently display information on the amount of carbon [dioxide] that has been avoided by the amount of clean generation embodied in a REC.”<sup>4</sup>

One reason the claims cannot be proven or disproven is that obtaining information on RECs is impossible. When contacted, WREGIS refused to display specific REC numbers along with their purveyor and place of origin.<sup>5</sup> Pacific Power refused to provide specific REC numbers or the history of individual RECs because of “the volume of RECs transacted.”<sup>6</sup> The Oregon Department of Energy also refused to display them.<sup>7</sup>

### **Relying on Intermittent Renewable Energy Facilities Does Not Obviate the Need for Redundant Traditional Energy Sources**

Many utility-scale “qualified resources” fail to produce any power most of the time, because the fuel source (sunlight or wind) is intermittent. As a result, the environmental benefits of “clean” energy are minimal or non-existent.

For example, power supply companies must have backup capacity because electricity demand and supply on the power grid must be in equilibrium at all times. Since backup power in most cases comes from fossil fuel generators or the Columbia River hydropower system, this effectively limits the carbon dioxide-reducing potential of new wind or solar capacity.<sup>8</sup>

The Oregon Department of Energy does not take intermittency into account, nor does WREGIS.<sup>9</sup> According to Eugene Water and Electric Board (EWEB), intermittency is not accounted for because their tracking method “only register[s] when the generating unit is producing energy.”<sup>10</sup> WREGIS also notes that it “tracks [only] actual generation, not scheduled,

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<sup>3</sup> Campbell, James. (10 April, 2013). Telephone Interview.

<sup>4</sup> “The Intersection between Carbon, RECs, and Tracking: Accounting and Tracking the Carbon Attributes of Renewable Energy February 2010.” *Environmental Tracking Network of North America*. Environmental Tracking Network of North America. February, 2010. 18, April 2013.

<sup>5</sup> Coon, Andrea (Communication 26 April, 2013)

<sup>6</sup> Customer Relations (Communication 29 April, 2013)

<sup>7</sup> O’Neil, Rebecca. (Communication 1 May, 2013)

<sup>8</sup> Korchinski, William. “The Limits of Wind Power.” *Reason Foundation and Cascade Policy Institute*. October, 2012. Accessed 26 April 2013. [http://cascadepolicy.org/pdf/pub/Oregon\\_Limits\\_of\\_Wind\\_Power.pdf](http://cascadepolicy.org/pdf/pub/Oregon_Limits_of_Wind_Power.pdf)

<sup>9</sup> O’Neil, Rebecca (Communication 1 May 2013)

<sup>10</sup> Gray, Catherine (Communication 2 May 2013)

so [it does] not need to account for intermittency.”<sup>11</sup> As long as a kilowatt hour of electricity has been generated by a source designated as renewable, this larger picture is irrelevant.

### **Alternative Sources of Energy Frequently Have Harmful Effects on the Natural Environment**

Wind power has been the primary beneficiary of REC sales, but wind energy is not as environmentally friendly as claimed. For example, wind turbines are estimated to kill 100,000 birds annually in the US.<sup>12</sup> One wind farm alone has killed more than 2000 golden eagles.

Until recently, no wind farm operators were ever prosecuted for these deaths. On Friday, November 22, 2013, however, the U.S. Department of Justice announced that it had settled its first ever criminal prosecution under the Migratory Bird Treaty Act for “avian death takings at wind projects.”<sup>13</sup> The government alleged that Duke Energy had caused the death of 14 golden eagles and 149 other protected birds at a wind facility the utility operates in Wyoming.

The terms of the settlement require Duke to pay a \$1,000,000 penalty and puts the company on probation for five years, while requiring it to implement an environmental compliance plan for the four wind farms it operates in Wyoming.

Solar energy has also been found to have adverse environmental effects. In early November 2013, migratory birds were found dead at solar facilities in California, many of them suffering from singed wings.<sup>14</sup>

Cycling intermittent power sources with constantly operating backup sources makes the environmental impact of intermittent sources worse, as described in the following real-time analysis of back-up generation in Colorado:

“Cycling coal plants to accommodate wind generation makes the plants operate inefficiently, which drives up emissions. Moreover, when they are not operated consistently at their designed temperatures, the variability causes problems with the way they interact with their associated emission control technologies, frequently causing erratic emission behavior that can last for several hours before control is regained. Ironically, using wind to a degree that forces utilities to temporarily reduce their coal generation results in greater SO<sub>2</sub>, NO<sub>x</sub>, and CO<sub>2</sub> than would have occurred if less wind energy were generated and coal generation were not impacted.”<sup>15</sup>

<sup>11</sup> Coon, Andrea (Communication 18 April 2013)

<sup>12</sup> <http://www.politifact.com/truth-o-meter/article/2010/may/03/checking-george-will-birds-and-wind-turbines>

<sup>13</sup> <http://www.justice.gov/opa/pr/2013/November/13-enrd-1253.html>

<sup>14</sup> [http://www.mydesert.com/article/20131109/BUSINESS0302/311090054/Palen-project-raises-concerns-across-Coachella-Valley?gcheck=1&nclick\\_check=1](http://www.mydesert.com/article/20131109/BUSINESS0302/311090054/Palen-project-raises-concerns-across-Coachella-Valley?gcheck=1&nclick_check=1)

<sup>15</sup> How Less Became More. April 16th, 2010. <http://docs.wind-watch.org/BENTEK-How-Less-Became-More.pdf>

In short, alternative, non-fossil fuel-based energy systems have many adverse environmental effects, especially if they are intermittent. Since RECs purport to represent the “environmental amenities” of such sources, yet these amenities are never verified, the most prudent course of action for the legislature would be to begin phasing out the value of RECs.

HB 4126-A moves in the opposite direction. I suggest that the committee simply table the bill and take up the issue again in 2015, by which time the fate of IP-3 will also be known.