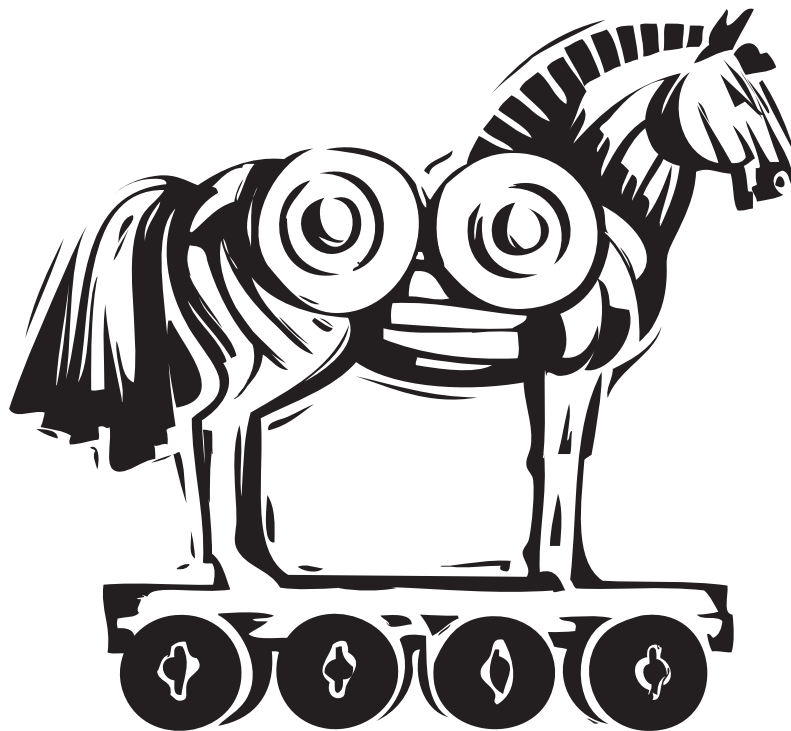


Renewable Energy Certificates: A Costly Illusion



by William Newell and John A. Charles, Jr.

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Renewable Energy Certificates: A Costly Illusion

INTRODUCTION

In 2007 Oregon passed Senate Bill 838, which established a state Renewable Portfolio Standard (RPS). The RPS mandates large utilities (those providing 3% or more of the state's electricity load) to supply a minimum percentage of electricity sold to retail customers derived from new “renewable” resources.

The RPS will be phased in over time, mandating that renewable sources account for 5% of all electric power generated by 2011 through 2014, 15% for 2015-2019, 20% for 2020-2024, and 25% by 2025. Smaller utilities are subject to lower standards.

A key feature of the law was the establishment of a system of Renewable Energy Certificates¹ (RECs), which allow public utilities to comply with the green power mandates without having to actually produce or purchase electricity generated from the required sources. Instead, utilities are allowed to buy RECs, which are not themselves a source of power. Each REC is a tradable commodity that purports to represent the “environmental amenities” associated with one megawatt-hour of electricity generated by certain renewable energy sources.

The purpose of this paper is to examine the “environmental amenities” that RECs supposedly represent. Two of the dominant renewable sources now being purchased by many utilities to comply with SB 838 – wind and solar – are intermittent generators that must be backed up at all times by more traditional sources such as coal, natural gas, or large hydro dams. Each of those sources has negative environmental externalities, such as air pollution or fish mortality. Therefore, it is not clear that the “environmental amenities” ascribed to RECs actually exist. If that is the case, REC brokers could be prosecuted under state or federal law for fraudulent behavior.

The remainder of this paper is structured as follows: The first section reviews the main requirements of SB 838. The second section discusses what Renewable Energy Credits are and how they are verified and traded. The next section examines the Oregon Unfair Trade Practices Act and general issues of false representation. The final two sections review how intermittent sources of power actually operate in a connected electricity grid. The analysis concludes by questioning whether RECs actually exist, and encourages state lawmakers to outlaw RECs as tradable commodities if they are associated with intermittent power sources such as wind and solar.

BACKGROUND

The Oregon Renewable Portfolio Standard

In 2007, the State of Oregon enacted SB 838, also known as the Oregon Renewable Energy Act (OREA or the Act).² To meet the Act's goal of enabling Oregon to transition to a “more affordable and more reliable” energy system not based on fossil fuels, the Act establishes the Oregon Renewable Portfolio Standard (RPS). Oregon thus joined the ranks of states with RPS programs, now totaling 30.³

RPS requires the state's utility companies to meet a percentage of their retail electricity needs with “qualified” renewable resources. Qualified renewable sources include the electrical output from solar, wind, ocean thermal, ocean wave power, geothermal, hydrogen derived from renewable sources, biomass, municipal waste combustion, and small hydroelectric facilities. Large hydroelectric facilities, which have provided much of the Pacific Northwest's affordable power generation for decades, are generally defined as not “qualified” under OREA, even though they are considered renewable in most other contexts.



For Oregon's three largest utilities – Portland General Electric (PGE), Pacific Power (PacifiCorp), and the Eugene Water and Electric Board (EWEB) – OREA sets the RPS as follows: The standard started at 5% in 2011; it increases to 15% in 2015, 20% in 2020, and 25% in 2025. Smaller electric utilities in Oregon have standards of 5% or 10% in 2025, depending on their size.⁴ In order to meet the standards, utilities may, among other options, purchase renewable energy certificates (RECs) to demonstrate that they have obtained the mandated percentage of renewable energy.

Renewable Energy Certificates

Renewable Energy Certificates (RECs) are at the heart of Oregon's, and many states', renewable energy programs. 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.⁵ 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.”⁶

The Environmental Tracking Network of North America (ETNNA) states that RECs were developed for many reasons, but mainly because of:

“interest by Federal agencies and some businesses and industries in purchasing renewable energy; passage of state renewable energy mandates; and the difficulty encountered in obtaining a power purchase agreement for renewable energy projects that would pay enough to cover the cost of the renewable project plus a reasonable return on investment.”⁷

ETNNA notes that a system separating renewable energy into two parts has facilitated the sale of renewable energy nationally. Those two parts consist of the electricity produced by a renewable generator, and the environmental attributes associated with that generation.⁸

RECs are created by a regional tracking system. 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. WREGIS assigns each REC a unique identification number that indicates the generation project and the month in which the REC was generated. Account holders are then able to transfer their RECs via contract or sale to other entities, including utilities that use them to meet their RPS-required percentage of renewable energy.⁹

WREGIS verifies that the RECs in the accounts it maintains

were produced at a “clean energy” facility and ensures that no kilowatt-hour is sold twice. WREGIS does this by having generation reported on a monthly basis. The generation is generally reported by third parties rather than by the generators themselves. WREGIS acts very much “like a bank account. In the same way that an account holder would be unable to use the same dollars to pay two different creditors, a specific WREGIS certificate cannot be held by more than one entity at a time.”¹⁰

“One certificate is created in association with the generation of one megawatt-hour (MWh) of 'qualifying electricity.'”

The main driver of demand for RECs and renewable energy in Oregon is OREA, which imposes alternative compliance payments and penalties on utilities that fail to comply with statutory mandates to produce or purchase a particular amount of renewable energy.¹¹ Utility companies are fined based on the difference in the company's mandated megawatt-hours and the company's actual megawatt-hour production (or purchase) of renewable energy.

For example, if Pacific Power has a 10% renewable mandate and it obtains renewable energy only equal to 5% of its annual sale of megawatt-hours, it must pay a fine for each megawatt-hour of renewable energy that it did not obtain, up to 10%. The fines are then pooled in an account and are available to the utility upon Public Utility Commission approval for various purposes, including the future purchase of renewable energy (including RECs), low-income housing grants, and for energy efficiency programs.¹²

RPS compliance reports show that Oregon's largest investor-owned utilities are REC producers. They own multiple REC-generating energy plants.¹³ In fact, PGE, Pacific Power, and EWEB all produce a surplus of RECs every year. For example, PGE currently produces almost twice the RECs required to meet its RPS, and Pacific Power produces more than twice the amount of necessary RECs.¹⁴ These utilities bank or sometimes sell the extra RECs (those beyond the quantity necessary to meet OREA mandates) to green power traders, such as 3Degrees.¹⁵

Oregon Department of Energy regulations require that when utilities rely on RECs for compliance with the RPS,

the relied-on RECs be “retired.” Retiring a REC means that the uniquely identified REC is placed in a retirement account at WREGIS. Retired RECs cannot be used by any other utility or twice by the same utility. This prevents double counting and provides records for determining compliance with statutory mandates.

RECs are also sold in a voluntary market¹⁶ to ratepayers who opt to pay a premium for having what they believe to be “renewable energy” delivered to the grid. The standards for the compliance market are more rigorous for utilities than for the voluntary market.¹⁷

In a portent of things to come, the use of unbundled RECs was recently expanded as a way of easing SB 838 compliance for small utilities as they gradually get “bumped up” into the category of “large utilities.” In the 2014 state legislative session, legislation was passed unanimously in the House that would expand the use of RECs by small utilities to meet compliance mandates.¹⁸



Currently, small utilities are required to have 10 percent of their electricity sales from qualifying renewables by 2025. Large utilities must comply with intermediate steps, the most immediate being 15 percent by 2015. Currently, the law only allows 20 percent of a compliance mandate to be met with “unbundled” renewable energy certificates. The new legislation, HB 4126, would allow consumer-owned utilities in the process of becoming large utilities to use unbundled renewable energy certificates to meet 100 percent of the compliance mandates.¹⁹

The amount of unbundled RECs that can be used for compliance under the new legislation decreases to 75 percent for the next incremental mandate of 20 percent by 2020. When the 25 percent by 2025 mandate comes into effect, only 20 percent of the compliance mandate can be met through unbundled RECs. This new legislation essentially forces smaller utilities, many of which already get most of their electricity through cheap, renewable Columbia River hydropower contracts, to purchase RECs of dubious quality simply because most regional hydro resources are defined as non-renewable under the Orwellian terms of SB 838.

Oregon Unfair Trade Practices Act

In Oregon, when consumers have been subjected to deceptive tactics by a company that induces them to purchase real estate, goods, or services, they have a remedy under the Oregon Unfair Trade Practices Act (OUTPA). Consumers either can bring suit in their own right, or the attorney general can bring suit on behalf of Oregon's citizens. Under OUTPA, the term “real estate, goods or services” means those that “are or may be obtained primarily for personal, family or household purposes, or that are or may be obtained for any purposes as a result of a telephone solicitation....”²⁰

OUTPA states that a fraud is committed when a person or organization “represents that real estate, goods or services have sponsorship, approval, characteristics, ingredients, uses, benefits, quantities or qualities that they do not have.”²¹

DISCUSSION

a. The Marketing of RECs to Utility Customers Is Misleading and Deceptive

According to 3Degrees, a firm that markets and sells green energy products:

“Utilities and Load Serving Entities (LSEs) purchase RECs so they can offer their residential and commercial customers green power through voluntary programs. Businesses, government agencies, and nonprofits purchase RECs in order to take responsibility for the environmental impact of their energy use and make their operations, products, and services more sustainable. Green building professionals purchase RECs to mitigate the environmental impact of the electricity used in their buildings, helping them qualify for points under the LEED (Leadership in Energy & Environmental Design) Green Power Credit.”²²

In Oregon, major purchasers of RECs, other than utility companies and residential customers of such companies, are universities,²³ municipal governments,²⁴ and many private businesses.²⁵ The benefits of participating in green power programs for these organizations include advertising, reputation enhancement, and possibly “green building” certification. For many organizations, environmental credibility is critical to their overall marketing strategy.

Power companies in Oregon advertise that purchasing RECs can be used to offset carbon dioxide emissions from residential and commercial customers' electricity use. Two of the major power companies offer a carbon dioxide calculator, which allows customers to calculate the amount

of emissions that are “avoided” because they purchased RECs. The calculators show the “carbon dioxide savings” by calculating the tons of CO₂ equivalent “avoided” and by framing the savings in terms of miles not driven in a car or the number of trees planted.

Organizations and corporations attempt to burnish their green credentials through press releases and favorable news stories about their efforts. For example, an Oregon State University (OSU) news release claimed that, because OSU purchased RECs, they were offsetting their carbon dioxide emissions from electricity.

Utilities market RECs as offsets, implying that there is some direct action that shuts down the fossil fuel plant so that renewable energy sources can operate in their place. 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.” In fact, there is only an indirect connection between energy customers and the renewable energy they purchase. Rather than paying for the cost of the electricity generated by a green producer, they are simply paying for RECs.

Some of the claims made by utility companies marketing their green power programs include the following:

Pacific Power:

- *“When you sign up for Blue Sky, Pacific Power contracts for RECs to match the equivalent of your ongoing electrical needs or the number of Blue Sky blocks you elect to purchase. Thus, the more RECs that are sold, the more demand is created for renewable power. As renewable facilities sell out their RECs, demand shifts to bring more renewable energy sources on-line.”*
- *“New renewable energy sources are being constructed across the United States to meet the demand created for renewable energy. Your purchase of RECs benefits the environment by encouraging greater renewable energy generation and displacing non-renewable generation from the electricity system.”*
- *“The Blue Sky program allows organizations to support renewable energy as a way to reduce the environmental impacts associated with their electricity use and achieve their environmental goals through a renewable energy purchase that represents a specific percentage of their energy use.”*

Portland General Electric (PGE):

- *“Since 2002, PGE customers have kept more than 5 billion pounds of CO₂ from entering the atmosphere, the equivalent of taking more than 505,000 cars off the road for one year.”*
- *“Your purchase of a renewable power option from PGE contributes to the development of new renewable generation sources in the Pacific Northwest. Your purchase also helps reduce air pollution. In fact, an average Oregon household using 790 kWh per month on our Green Source plan for a year offsets CO₂ emissions by more than 12,124 pounds.”*
- *“The renewable electricity you purchase will be delivered to the regional electricity grid, not specifically to your house or business. It is not possible from a technical or logistical perspective for utilities to add an entirely new set of power lines for solely carrying the electrons generated from renewable facilities. So, while we cannot send the renewable power directly to your location, what we can assure you is that the amount of renewable electricity you purchase will be delivered into the grid to displace the more polluting energy you would have purchased otherwise.”²⁶*



Despite these “feel good” claims, there is no evidence that RECs represent any “environmental attributes” of the fuel sources with which they are associated. In fact, Pacific Power admits there is no requirement that any of the RECs be proven specifically to have saved a certain amount of carbon dioxide from entering the atmosphere.²⁷

A 2010 White Paper, prepared by ETNNA, confirms this position. 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.”²⁸

One reason the claims cannot be proven or disproven is that obtaining information on RECs is difficult, if not impossible. For instance, when contacted, WREGIS refused, on privacy grounds, to display specific REC numbers along with their purveyor and place of origin.²⁹ Pacific Power refused to display specific REC numbers of the history of individual RECs because of “the volume of RECs transacted.”³⁰ The Oregon Department of Energy also refused to display them.³¹ The lack of transparency in tracking individual RECs is a problem for the program because it prevents public accountability of the program’s environmental impacts.

“Most of the projects produce only small amounts of electricity and do not account for additional environmental benefits.”

In the voluntary market, when individuals pay extra to participate in green power programs, they are actually just donating money to a regulated utility rather than creating any real-time demand for “green power.” All ratepayers, including those in green power programs, pay the basic service rate, which pays for the service utilities give to all basic customers. When individuals signs up for a green power program, they pay an extra amount of money on their electricity bill, and this money is used to pay for a number of RECs matching to the nearest megawatt-hour the customers’ electricity use. Energy utilities can buy RECs from companies, such as 3Degrees, which aggregate and market RECs from other regions or nationally.³²

Sometimes utilities buy RECs directly from generators. For example, PGE purchases RECs from Green Mountain Energy, a Texas-based company.³³ The law does not require that such purchases be immediate upon a customer consuming another megawatt-hour of energy; rather, they can be purchased at the convenience of the utility.³⁴ Thus, there is no direct link in time or location between the payments a customer makes for “green” alternative energy and the production of that electricity or its delivery to the customer paying for it.

It is interesting to note that utilities offering customers a chance to invest in green energy through the purchase of RECs market them as keeping carbon dioxide from entering the atmosphere, although this was not the stated purpose of

OREA. Certainly, most of the alternative, non-fossil-fueled sources of renewable energy do result in less carbon dioxide entering the atmosphere, at least at the point of generation (and setting aside the impacts of back-up facilities). Nevertheless, RECs are theoretically available for the combustion of biomass, often suggested as a means of employing people in the logging industry through their employment in the clearance of forest floors and then using the resulting debris as fuel. It is not clear that this form of alternative energy would significantly reduce carbon dioxide emissions.

RECs in the voluntary market are more like an accounting mechanism for donations than a way to directly encourage increased production of electricity from renewable sources.

Unbundled RECs – which are sold separately from the electricity from which RECs are derived – are relatively inexpensive (between \$0.70 and \$5.00, a price determined by the market).³⁵ Because the proceeds of unbundled RECs going to power generators are minimal, the effect they have on expanding electricity production is also minimal. The law does not require generators to use the proceeds from RECs to expand their energy production capabilities.³⁶

Any money not used to purchase RECs is put into a fund for promoting regional renewable energy projects. In the past, the money has been spent to partially fund small projects on schools and other public buildings.³⁷ Most of the projects produce only small amounts of electricity and do not account for additional environmental benefits.³⁸ In this way, customers are not offsetting or neutralizing their carbon dioxide.

It is revealing that a major promoter of renewable power – the Energy Trust of Oregon, a group funded through mandatory assessments on electric utility customers – has obtained RECs for years through a program of subsidizing green energy projects, yet the Trust lists these “assets” as having no value on its financials:

In the process of funding above-market costs of renewable energy resources, Energy Trust negotiates the contractual ownership of Renewable Energy Certificates (REC) with funding recipients.

Energy Trust’s RECs represent an intangible asset, as defined in ASC 350-30, General Intangibles Other Than Goodwill. In 2010, the Organization assigned value to its RECs based on their estimated fair value at acquisition using the guidance in ASC 820, Fair Value Measurements and Disclosures. The fair values of RECs contractually held by the Organization at December 31, 2010, are not considered material to the financial statements and, therefore, no intangible asset has been recorded in the statements of financial position. In

*2011, the Organization amended policy 4.15.000-P to remove provisions allowing the sale of RECs, as a result all current and future RECs will have a fair value of \$0 at December 31, 2011.*³⁹

Because the system for funding renewables is complex, it has opened itself to claims of misleading and deceptive advertising. Customers may think their electricity is coming from a clean, renewable source when it is not. This would appear to violate the spirit of the Oregon Unfair Trade Practices Act (OUTPA). In many cases, customers would be better off simply donating the extra money they provide a utility for “green energy” to the non-profit organization of their choice. For example, a customer who pays Pacific Power (a regulated monopoly not in need of donations) to participate in the Blue Sky Habitat program instead could donate money directly to The Freshwater Trust and take a tax deduction.

As noted earlier, OUTPA applies to goods or services obtained primarily for personal, family, or household purposes. Thus, it would apply to the marketing of utility services. Those providing such services cannot represent that the services have benefits or qualities they do not have. Examining the statements used to encourage utility customers to pay extra each month to support green energy, such statements appear to claim benefits or qualities they do not actually offer, at least as understood by the consumer. Hence, these enticements should not be allowed.

Moreover, if customers understood many of the following drawbacks of renewable energy, support for OREA might be considerably lessened, and utilities would have a more difficult time persuading such customers to increase their monthly bills to support the program.

b. Relying on Intermittent Renewable Energy Facilities Does Not Obviate the Need for Redundant Traditional Energy Sources That Cause Environmental Problems

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 install backup capacity available instantaneously, because electricity demand and supply on the power grid must be in equilibrium at all times to avoid blackouts. 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 capacity.⁴⁰ According to a 2009 report produced for the U.S. Army Corps of Engineers, “BPA has already experienced large ramping events of several hundred megawatts of

unscheduled changes in wind output occurring within an hour as the percentage of wind penetration grows the risk of having a major system failure even from an unpredicted change of the wind energy level increases.”⁴¹

“Ironically, using wind to a degree that forces utilities to temporarily reduce their coal generation results in greater SO₂, NO_x, and CO₂ than would have occurred if less wind energy were generated and coal generation were not impacted.”

According to Eugene Water and Electric Board (EWB), intermittency is not accounted for because their tracking method “only register[s] when the generating unit is producing energy.”⁴² WREGIS also notes that it “tracks [only] actual generation, not scheduled, so [it does] not need to account for intermittency.”⁴³ As long as a kilowatt-hour of electricity has been generated by a source designated as renewable, this larger picture is considered irrelevant.

This cycling makes the environmental impact of intermittent sources worse, as described in the following real-time analysis of back-up generation in Colorado:

“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 SO₂, NO_x, and CO₂ than would have occurred if less wind energy were generated and coal generation were not impacted.”⁴⁴

Even if wind is cycled with natural gas and not with coal, there are still large emissions from the plants, and the emission levels are higher than they would have been had the plants not been cycled. This is due to the inefficiency of ramping generators up and down.⁴⁵

Nevertheless, the increased reliance on natural gas has pushed Oregon utilities into building new gas-generated energy capacity to balance wind and to meet its growing

energy demand. PGE is building new natural gas plants at Boardman and Port Westward for this purpose.⁴⁶

Hydropower has its own limitations and environmental impacts. The Bonneville Power Administration (BPA) uses two methods to regulate electricity output: 1) storage reservoirs and 2) spilling excess water over dams.

Holding water in reservoirs can increase water temperatures, while increasing water flow through the dam's turbines can reduce downstream water temperatures and push less oxygenated water downstream. Both of these results can harm fish. Fluctuating reservoir levels can also disturb sensitive fish, waterfowl, and bottom-dwelling organisms.⁴⁷

Spilling water has both legal and environmental drawbacks that come from limits placed on the levels of total dissolved gas in rivers. Excessive amounts of dissolved nitrogen gas can cause fish die-offs among salmon and other endangered species.⁴⁸ Finally, the cost of building new reservoirs or even new dams is extremely costly and would reverse the Pacific Northwest's long trend towards removing dams.⁴⁹

Despite hydroelectric power looking like the best method for backing up intermittent wind power, the hydroelectric system in Oregon, and along the Columbia River specifically, is being stretched to its balancing limits.⁵⁰ As more wind power has been added to the regional grid, it has strained and limited BPA's ability to fully provide the backup necessary to meet Oregon's growing energy demand and still balance other economic, cultural, and environmental concerns.



This problem was seen in 2011 with BPA's shut off of wind generation (and all other fossil fuel and nuclear generation) on its transmission lines due to heavy winter snows and the subsequent large spring run-off.

Part of the reasoning behind the transmission shut-off was to protect salmon from gas bubble disease caused by "spilling," as well as wanting to protect ratepayers in BPA's service territory from paying for more expensive wind energy.⁵¹ BPA's claim was disputed by wind developers and some environmental groups; but regardless, the situation highlighted the increasingly complex system BPA operates.

Hydropower dams in the Northwest are being used in ways for which they were not designed. This can result in increased maintenance costs, equipment failures, and cracks in dam foundations. Sporadic operation induces wear and tear, whereas under normal conditions dams are continuously operated.⁵²

This situation means that either new storage capacity is required, new hydro plants must be built, or more open energy market transactions must be made. Absent these solutions, fossil fuel plants must be built in order to meet the reserve requirements for new wind.

c. Alternative Sources of Energy Frequently Have Harmful Effects on the Natural Environment Regardless of What Back-up Sources are Used

Putting aside the environmental footprint of specific back-up sources, utility-scale wind power facilities are not as environmentally friendly as claimed. For example, wind has "many...negative externalities that are commonly overlooked, such as land and material use, construction emissions and habitat destruction."⁵³ Wind turbines are also estimated to kill 10,000 birds a year.⁵⁴ In addition, 600,000 bats were estimated to have been killed by wind turbines in 2012.⁵⁵ One wind farm alone has killed more than 2,000 golden eagles. Killing one eagle, let alone several thousand, is a Federal crime under the Migratory Bird Treaty Act (MBTA); even possessing the feathers of a golden eagle can land one in prison.

Until recently, no wind farm operators were ever prosecuted under the statute.⁵⁶ On Friday, November 22, 2013, however, the U.S. Department of Justice announced that it had settled its first ever criminal prosecution under the MBTA for "avian deaths takings at wind projects."⁵⁷ The government alleged that Duke Energy had caused the deaths of 14 golden eagles and 149 other protected birds at a wind facility the utility operates in Wyoming.

It also must apply for a take permit for golden eagles. Implementing the compliance plan will cost the power company approximately \$600,000 per year.⁵⁸ Much of the initial \$1,000,000 penalty will be provided to various environmental groups, which may well incentivize those groups to encourage further prosecutions under the MBTA.

The case demonstrates that wind farms may become more expensive to operate as they are required to implement mitigation against harmful effects on migratory birds. These costs, of course, will be passed on to consumers.

The Obama Administration has responded to these problems by carving out a major exemption for wind power

generators. In December 2013 the U.S. Interior Department issued a rule that would grant 30-year permits allowing wind farms and other energy projects to accidentally kill federally protected eagles, provided they meet certain criteria.⁵⁹ This rule is being challenged by the National Audubon Society.⁶⁰

Solar energy also has been found to have adverse environmental effects. In early November 2013, migratory birds were found dead at utility-scale solar facilities in California, many of them suffering from singed wings.⁶¹ At the residential level, a concern with solar panels is the dangers they pose to firefighters and others when they are involved in a fire. Not only do they expose fire fighters to a source of live electricity that cannot be shut off, they can also release harmful fumes.⁶²

In short, alternative, non-fossil-fuel-based energy systems have many adverse environmental effects. Utilities offering customers opportunities to purchase additional RECs do not advertise these effects. Moreover, all consumers will pay for mitigation of these effects through their monthly utility bills as they raise the cost of renewable energy that utilities must obtain.



CONCLUSION

RECs are supposed to represent the “environmental amenities” associated with politically designated types of electricity generation. However, nowhere in the process of buying or selling RECs are those amenities verified. Outsiders cannot validate them because utilities, the OPUC, REC producers, and REC traders refuse to grant access to relevant data. Unlike many food products, where prospective purchasers can easily learn relevant attributes such as the exact location of the farm, pesticide/hormone use, and even date of harvest, the REC market is shrouded in secrecy.

Upon examination, RECs from intermittent sources like wind and solar appear to be a fake commodity, created out of thin air. The result is that between forced purchases mandated by RPS rules and voluntary sales based on false advertising, a subprime carbon market has been created in which the certificates being traded have no real assets behind them.

The major political players in the REC market are satisfied with the illusion because they all get something of value. The utilities (PGE, PacifiCorp, and EWEB) are content because they have an easy way to comply with the Oregon Renewable Portfolio Standard. Certain legislators and their political allies are satisfied because it is a legislative “victory.” WREGIS, Green-e, and 3Degrees benefit from the business of authenticating RECs, even if they do not have to ask the harder question of whether RECs are beneficial for the environment.

The only people not benefitting are ratepayers, who bear all the costs of the fake commodities.

The Oregon Attorney General should investigate whether the marketing of RECs is consistent with the requirements of the Oregon Unfair Trade Practices Act. In addition, the Oregon Legislature should amend the OREA to prohibit the use of RECs if they are associated with intermittent power sources such as wind and solar.

ENDNOTES

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