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Climate Swindle:

The Mirage of Carbon Offsets

Photo sources: http://energytechstocks.com/wp/?p=839, http://www.standardsusers.org/mysr/index.php?limitstart=70.

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March 2010

Introduction

Carbon offsetting has spread quickly in the past few years, fueled by worries of human induced climate change. Some assert that the combustion of fossil fuels is causing a buildup of greenhouse gases in the atmosphere and consequently increasing global temperatures. Accordingly, many environmental organizations and governments around the globe advocate restricting fossil fuel use and increasing the use of mechanisms that claim to decrease human emitted greenhouse gases. One of these mechanisms is carbon offsets.

The Climate Trust, a non-profit carbon offset provider in Oregon, defines carbon offsets as "reduction, removal, or avoidance of greenhouse gas (GHG) emissions from a specific project that is used to compensate for GHG emissions occurring elsewhere. One carbon offset represents one metric ton of carbon dioxide equivalent."[1] By purchasing a carbon offset, businesses, electric utilities, or individuals pay someone to reduce greenhouse emissions elsewhere, rather than change their own behavior.

Climate policies such as the European Trading Scheme, the Kyoto Protocol, and other cap-and-trade programs have relied heavily on the use of offsets as an alternative for trading carbon credits. A carbon credit is a government issued permit to emit greenhouse gases; one credit typically allows a regulated entity to emit one ton of greenhouse gases. But if a regulated entity exceeds its allowable emission amount, it must purchase carbon credits from other regulated entities that have reduced their emissions or it can purchase carbon offsets instead. A carbon offset is purchased through a carbon offset project or a carbon offset marketer as opposed to being government issued. Climate policies aim to reduce greenhouse gases from a variety of sources, but currently it is too expensive to reduce greenhouse gas emissions from fossil fuel use. Carbon offsets often provide a cheaper path for regulated entities or individuals to reduce their greenhouse gas emission profile.

The newfound popularity of carbon offsets warrants a closer examination of their legitimacy. Studies of some carbon offset schemes have revealed examples of fraud and abuse. These examples caution against the use of offsets for regulatory compliance.

This report offers an in-depth look into one of the most prominent carbon offset marketers in the United States, the Bonneville Environmental Foundation (BEF). Because BEF is perceived as one of the nation's leaders in providing quality offsets, any problems found there would indicate that there are systemic problems within the industry.

First this report describes BEF's history. Then it examines BEF Carbon Offsets and provides a detailed analysis of specific projects. The report concludes with a discussion of how BEF Carbon Offsets are sold throughout the market and possible conflicts of interest with BEF and governmental policy making.

Bonneville Environmental Foundation Background

Origin

The nonprofit Bonneville Environmental Foundation was founded in Oregon in 1998 with the mission to improve the environment by promoting renewable energy and cleaning up watersheds.[2] Several groups were involved in BEF's inception, including the Emerald People's Utility District, the Natural Resources Defense Council (NRDC), the Northwest Energy Coalition (NWEC), and the Renewable Northwest Project (RNW). Though the organization receives substantial annual funding from the federal government, it is an independent organization with its own Board of Directors.

"Studies of some carbon offset schemes have revealed examples of fraud and abuse. These examples caution against the use of offsets for regulatory compliance."

The BEF founders agreed to endorse "select, environmentally preferred resources" such as wind, solar, and geothermal power, and the Bonneville Power Administration (the Pacific Northwest federal power marketing authority) agreed to sell electricity and "Renewable Energy Certificates" (RECs) from these power sources for an increased premium from their customers.[3] This premium and the sale of RECs would ultimately help form and fund BEF.

The Bonneville Power Administration (BPA) sells low-cost power generated from federal hydroelectric projects on the Columbia-Snake River systems. BPA also sells power from a growing number of expensive non-hydro projects such as wind turbines. In order for this "green" electricity to be competitively priced, BPA offsets the inherent cost premium by selling credit for the "environmental benefits" that are assumed to accompany wind power. These attributes are bundled into a "renewable energy certificate" and sold to various buyers such as electric utilities that are required by state law to sell minimum levels of so-called green power, businesses looking to burnish their environmental image, or individuals who simply want to support renewable energy. Each REC represents the alleged environmental benefits of one megawatt-hour (MWh) of electricity generated from an "eligible" renewable energy source, usually defined to include wind, solar, wave, geothermal and biomass. A REC is sold separately from the electricity generated by these sources.

BPA began its partnership with BEF to leverage private funds to benefit the region. A funding authorization from

Congress required BPA to protect fish and wildlife and promote non-hydroelectric renewable energy sources. Seeking to fulfill its statutory duty, BPA began giving 36% of the proceeds from REC sales to BEF, which had to be spent on watershed and renewable energy projects. BPA has given BEF this grant since its inception.[4] Now, however, BPA pays one sum each year of $1.3 million, which is adjusted for inflation, and comes with a discretionary allotment for more support if needed. This sum has no spending requirements and can be used for any function of BEF.[5] More recently, BPA has decided to extend contributions to BEF for twenty more years. BPA decided, without consulting BPA customers or having a public process, to make a series of annual payments with specific clauses that could allow BEF to receive over two billion dollars over the next twenty years.[6]

A few years after its founding, BEF realized that relying on grants and donations limited its influence. According to BEF Sales and Procurement Coordinator Lindsay Hamilton, "We needed a way to create a greater cash flow so we could expand our services and follow through on programs that we dreamed of implementing."[7] BEF began to buy RECs and sell them as BEF Green Tags in 2000, which it considered consistent with its mission of promoting renewable energy development.[8] Therefore BEF began buying RECs from other sellers besides BPA. Since 2000, BEF has bought RECs from BPA, directly from renewable energy project owners, and occasionally from public utility districts.[9] BEF resells these RECs (bought either at a discount or at cost) to their customers at a higher price.[10]

http://rivers.bee.oregonstate.edu/research.html

BEF Green Tags and BEF Carbon Offsets

Originally, BEF began selling BEF Green Tags to supplement the donations from BPA. BEF claims Green Tags represent the collection of environmental benefits created by "displacing the output from conventional, polluting power plants with the output from a new, non-polluting renewable power plant."[11] These environmental attributes were intended to include the reduction of carbon, mercury, particulates, and other "pollutants."[12] The environmental benefits are the second of two products to come from renewable power generation, the first being the actual electricity; they are sold as separate commodities with different contracts.[13]

BEF Green Tag profits have been used to buy more RECs and to invest in renewable energy educational programs (e.g., Solar4R Schools) and watershed restoration projects.[14]

"Unfortunately for BEF, it is not as easy as one may think to just rename RECs as carbon offsets. There are countless inconsistencies associated with selling RECs as carbon offsets to customers."

In 2008, BEF contracted to purchase just over 7,000 MWhs of RECs to be resold.[15] This past year, BEF began selling carbon offsets and renamed its BEF Green Tags to BEF Carbon Offsets. Since carbon offsets have become more mainstream the change might seem appropriate from a marketing perspective. BEF representative Lindsay Hamilton said, "Green Tags are the same as carbon offsets. We just gave them a new name. The term 'environmental attribute' is what I know as a synonym for an offset . . . . Our offsets reduce greenhouse gases by providing renewable energy to the US energy grid."[16]

According to BEF, each BEF Carbon Offset represents 1,000 kWh produced from renewable energy projects and allegedly offsets 1,500 miles driven in a standard car.[17] BEF Wind Offsets and BEF Wind and Solar Blend Offsets are said to represent 1,500 pounds of CO2 not emitted into the atmosphere; a pure BEF Solar Offset represents 1,295 pounds of CO2 not emitted.[18]

BEF has a carbon calculator on its website for customers to estimate how much carbon they emit and how many BEF Carbon Offsets they should buy to reduce their carbon footprints. The calculator is said to use a formula which ascertains how much air pollution comes from each person or business's consumption.[19] It then divides that amount by the quantity of air pollution avoided by one BEF Carbon Offset.[20] BEF states that it uses the best available data from trusted government sources, but admits that the calculation of each person's recommended carbon offset purchase is an approximation.[21]

In addition to selling BEF Carbon Offsets, BEF has partnered with several businesses to sell miniature carbon offsets which are marketed through programs called SkiGreen, Race Green, Paddle Green, and Tour Green.[22] These offset purchases supposedly offset emissions related to the travel to and from recreational activities like skiing, running, rafting, kayaking, and touring.[23]

Problems with BEF Carbon Offsets

There are significant problems with BEF Carbon Offsets. Unfortunately for BEF, it is not as easy as one may think to just rename RECs as carbon offsets. There are countless inconsistencies associated with selling RECs as carbon offsets to customers, including inaccurate assumptions of offsetting fossil fuel generation, lack of additionality, and inaccurate monitoring/verification of emission reductions.

RECs versus Carbon Offsets

The major problem with BEF Carbon Offsets is that they are not really offsets at all. There is a distinct difference between RECs (which BEF purchases to resell) and carbon offsets. BEF claims that this process is legitimate because the RECs are certified by an independent third party called Green-e Climate. Once certified by Green-e Climate, BEF sells the RECS as BEF Carbon Offsets. Green-e Climate claims that they only certify the emissions reductions associated with renewable energy and that RECs are just one part of the documentation required to show ownership.[24] But BEF representative, Lindsay Hamilton, states "Green Tags are the same as carbon offsets. We just gave them a new name."[25]

When asked if a REC is the same as a carbon offset, Green-e Climate's senior analyst replied, "A REC is not a carbon offset."[26] For Green-e, the REC standards and carbon offset standards differ in terms of "additionality." Carbon offsets (unlike RECS) are required to meet tests that show that the environmental attributes sold as offsets go above and beyond what would occur without the sale of an offset.[27]

RECs simply represent the supposed environmental amenities associated with green power production, bundled as a commodity for a given amount of kilowatt hours generated. In other words, RECs subsidize existing renewable energy projects. An offset is beyond "business as usual" and can only be considered additional and thus genuine if the project would not have been completed without the offset funding. For renewable energy, offset funding is intended to incentivize a project developer to build a renewable energy facility, not to subsidize an existing one.

Many have spoken out against the practice of turning RECs into carbon offsets, including another offset marketer, Climate Clean. Climate Clean asserts that additionality is the crux of carbon offsetting and RECs do not meet that criterion.[28] Climate Clean states, "RECs potentially stimulate clean power production, whereas offsets reduce and/or eliminate GHG emissions."[29] Climate Clean also asserts that RECs do not generally bring new renewable energy onto the grid.[30] This is supported by the fact that Green-e only certifies projects that are already generating energy.[31]

Climate Clean isn't the only company in the carbon offset industry that objects to the sale of RECs as carbon offsets. The Offset Quality Initiative (OQI), a collaborative effort of six nonprofit member organizations designed to bring credibility to the offset market, published a report challenging this practice. The OQI's report, Maintaining Carbon Market Integrity: Why Renewable Energy Certificates Are Not Offsets, criticizes organizations like BEF for selling RECs under a false identity.[32] The report clearly defines a carbon offset as a "reduction, removal, or avoidance of GHG emissions that is used to compensate for GHG emissions that occur elsewhere."[33] It then defines a REC as a "certificate that is issued when one megawatt-hour of electricity is generated and delivered to the grid from a qualifying renewable energy source."[34]

The report states that credible offset providers have legitimate claims to emission reductions through additionality and ownership tests.[35] For ownership, the OQI claims that no method exists to make sure that when RECs are sold from a particular renewable energy facility, the emissions reductions are not being claimed by "other grid-connected entities."[36] This means there could be double counting involved.

In addition, OQI finds that while some renewable projects may be additional, others would have been built anyway, because of government incentives like tax credits.[37] The OQI report concludes, "If the additionality of a REC cannot be determined, the failure of a REC to meet the additionality criteria alone makes it inappropriate for use as an offset."[38]

In short, RECs generated from renewable projects only represent a megawatt of electricity sent into the electrical grid. It has not been shown that this megawatt of electricity reduces carbon emissions, though it may reflect other environmental benefits of value to the purchaser.

Thomas Boyd/The Oregonian

Renewable Integration into the Grid

BEF's claims about its product are also misleading. BEF states, "When you purchase a Carbon Offset, you're canceling out (offsetting) a set amount of greenhouse gases your activities release into the environment." This means that purchasing a BEF Carbon Offset is assumed to directly stop, reduce, or offset an exact amount of greenhouse gases. In fact, BEF asserts, "A 1,000 kWh of electricity generated from clean, renewable resources (like wind and solar) displaces 1,000 kWh of electricity that would have been generated from dirty, polluting sources (such as coal or natural gas)."[39]

But an investment in renewable energy does not mean that the energy actually reduces emissions, replaces fossil fuel generation, or convinces a utility to resist building a coal plant in favor of a renewable alternative like wind. One of the larger BEF REC suppliers is the White Creek wind project in Washington State. The energy from this facility is integrated into the BPA system. The interesting thing to note about BPA-integrated wind farms is that they are incorporated into the electricity grid using hydroelectric power as the back-up source, which negates BEF's claim that renewable resources 'displace' fossil fuel generation.

In order to function properly, the electricity grid must remain in perfect supply and demand equilibrium. This means that adding an intermittent power source such as wind turbines to the grid makes it difficult for BPA to balance energy properly. When the wind blows and wind turbines begin generating electricity, another power source must be ramped down or shut off in order to prevent an overload of electricity. In the Pacific Northwest and under BPA, hydroelectricity is ramped down in order to accommodate wind power. **This means that the production of wind power is not directly offsetting any emissions at all; it is simply replacing another renewable energy source.** Thus the BEF claim that "1000 kWh of electricity generated from renewable resources (like wind and solar) displaces 1000 kWh of electricity that would have been generated from dirty, polluting sources" is false.

> ***"[A]n investment in renewable energy does not mean that the energy actually reduces emissions, replaces fossil fuel generation, or convinces a utility to resist building a coal plant…."***

Even the senior analyst from Green-e Climate, the third party certifier of BEF Carbon Offsets, agrees with this conclusion. When asked, "If renewable power was integrated into the hydro system then no emissions would be reduced, right?" A Green-e Climate senior analyst stated, "If the electricity is being integrated with hydropower, then yes."[40]

The massive expansion of wind power in the Pacific Northwest is creating significant problems for BPA; the hydroelectric system is reaching the point where it can no longer compensate for the unpredictable nature of wind energy. Therefore BPA has announced that natural gas power plants are being considered for construction in order to back up the energy from wind on the BPA's system.[41]

When asked if wind power was reducing carbon emissions from BPA, Deb Malin, BPA representative, answered, "No. They are, in fact, creating emissions."[42] The reason is that natural gas-fired power plants used to back up wind farms must be kept on-line at all times. This is known as the "spinning reserve", a phase that resembles the operation of an automobile idling. Though a natural gas facility may not be generating any actual electrical power while in spinning reserve, it is consuming fuel and emitting greenhouse gases.[43]

Thus new wind farms do not add any direct energy capacity to the electricity grid because they must always be backed up by another power source. If that source is BPA hydro projects, the wind farms are roughly carbon-neutral; if the hydro is tapped out and BPA must use natural gas plants held in spinning reserve, the wind projects actually increase carbon emissions.

There are three wind farms from which BEF buys RECs where fossil fuel plants are used to integrate the power into the grid. This means that helping to fund new renewable generation from those wind farms through the sale of BEF carbon offsets does not necessarily prevent new fossil fuel plants from being built. It may actually encourage the construction of new fossil fuel plants.

In Germany, the heavy integration of wind power has not reduced carbon emissions, and additional coal and natural gas plants have been constructed to "ensure reliable delivery."[44] Flemming Nissen, the head of development at a West Danish generating company, ELSAM, one of Denmark's largest energy utilities, has stated that "wind turbines do not reduce carbon dioxide emissions."[45]

In summary, RECs, which are what BEF purchases and repackages as offsets, do not offer a direct and verifiable emission reduction, and may actually spur the development of new fossil-fueled facilities. Thus BEFs' claims of directly displacing fossil fuels by adding renewable energy to the grid are false.

Green-e Certification

BEF has its carbon offsets certified by a third party in an attempt to appear legitimate; however, the certification process itself is flawed. BEF Carbon Offsets are not additional and are not accurately monitored to verify whether they actually reduce greenhouse gases.

Center for Resource Solutions' Green-e Climate program certifies BEF Carbon Offsets. Green-e Climate is an independent, voluntary, national nonprofit carbon offset consumer protection standard that certifies greenhouse gas emission reductions sold in the voluntary market.[46] (Green-e also provides another type of certification, Green-e Energy, which certifies RECs, green pricing programs, and competitive electricity products.) Green-e Climate certifies carbon offsets, not participating marketer companies, projects, or generating facilities, or project developers.[47]

Green-e Climate certifies that BEF Solar Energy Offsets, BEF Wind Energy Offsets, and BEF Wind & Solar Energy Blend Offsets meet the minimum environmental and consumer protection standards established by the nonprofit Center for Resource Solutions (CRS).[48] Green-e Climate aims to ensure that carbon offsets are not double counted or double claimed. To do this, Green-e Climate requires that auditors verify supply and product content information using electronic tracking systems, and requires copies of tracking system reports during its annual verification process.[49] It purportedly aims to set a standard that helps consumers know that they are buying something that will help the environment.

The Green-e Climate program verifies that (1) a seller's offset sales do not exceed its supply (to ensure that there is no double counting); (2) consumer disclosures are accurate; and (3) the GHG reductions that the offsets are claimed to offset are independently confirmed by an Endorsed Program.

Green-e's role is easier to understand when the process of buying and selling offsets is clear. Project developers or generation facilities sell the environmental attributes of their projects to offset marketers. In this case, a wind or solar energy facility (or developer) will sell its environmental attributes (e.g., offsets or RECs) to BEF, a marketer. In order for BEF to get its product certified by Green-e Climate for resale to consumers, the offsets that it purchases must be approved by an Endorsed Program. Endorsed Programs examine renewable energy projects to determine whether they actually reduce greenhouse gas emissions and are additional to business as usual. BEF buys offsets that were approved by an Endorsed Program (which happens to be the Green-e Climate Protocol for Renewable Energy). Then Green-e Climate certifies offsets for resale to consumers. Consumers presumably buy the offsets and feel that the product is actually offsetting their greenhouse gas emissions because it is certified by Green-e Climate.

To be clear, Green-e Climate is not responsible for the direct testing of renewable energy projects (e.g., RECs/offsets sold directly by a wind facility), but only certifies products that have already been approved by an Endorsed Program. An Endorsed Program is an independent third party that verifies that certain environmental benefits are actually achieved via the carbon offset. In order to be considered an Endorsed Program, the program must meet the criteria outlined in the Green-e Climate Standard. Green-e Climate currently recognizes four programs as Endorsed Programs, including one that it created: the Green-e Climate Protocol for Renewable Energy. Green-e first initiated the Green-e Climate program when there were no Endorsed Programs for renewable energy, which is why it created its own. All BEF Carbon Offsets are first "project approved" by the Green-e Climate Protocol for Renewable Energy. Then Green-e Climate can officially certify the offsets and make sure that they are registered in an electronic tracking system.

The Green-e Climate Standard for Endorsed Programs

The Green-e Climate Standard requires two "additionality" tests to assess that an Endorsed Program is properly analyzing whether a carbon offset project is additional and real. For BEF, the Endorsed Program is Green-e Climate's Protocol for Renewable Energy. So, first, Green-e tests the specific project and then Green-e certifies their own test.

The first test involves legal, regulatory, and institutional guidelines that attempt to validate that the projects were not completed in pursuance of a regulation, policy, guidance or industry standard, but go above and beyond that requirement.[50] In other words, if the project was mandated by a local, state, or federal government agency, or was required under any legal requirement or settlement, then it cannot be considered additional. All of the Green-e Climate Endorsed Programs' projects must meet this test.

The second test, the Timing Test, requires that the Endorsed Programs' projects must have become operational on or after January 1, 2000.[51] The Green-e Climate Standard states, "The assumption is that any project that became operational before this date was not induced by the existence of the GHG emission reduction market."[52] Green-e Climate thus assumes that any projects built before 2000 that offset emissions are not additional because the carbon offset market was not established well enough to induce them to create the project. Yet Green-e Climate also assumes that all projects built after 2000 are created to reduce carbon emissions and are only able to be constructed through the additional funds provided by the sale of carbon offsets. This is not the case.

> ***"[G]reen-e Climate assumes all projects built after 2000 are created to reduce carbon emissions and are only able to be constructed through the additional funds provided by the sale of carbon offsets. This is not the case."***

Beyond these two tests, the Endorsed Programs' projects must also pass one of the "additional" tests. These tests mainly focus on the technology and funding aspects of the project. The tests require that projects must reduce GHG emissions below those produced by "common practice," or that emission reduction funding is essential for the project to move forward.[53]

If a program properly uses these tests to assess its specific offset projects then it can be certified by Green-e Climate as an Endorsed Program.

Green-e Climate Protocol for Renewable Energy

BEF has decided to have all of its projects assessed by Green-e Climate's own Endorsed Program, the Green-e Climate Protocol for Renewable Energy (Protocol). The Protocol looks into specific projects that BEF buys RECs from and assesses whether the projects are additional and lead to real reductions in emissions. The Green-e Climate Standard sets the overall offset standard for Green-e certification but the Protocol has more specific standards that relate to renewable energy offsets.

Under the Protocol, specific offset projects must pass several tests. The first test is the performance and technology test, which is simply an assessment of whether the project is an eligible renewable resource. Projects that are eligible include wind, solar, geothermal, some biomass projects, and some hydro projects.[54]

The second test is similar to the Green-e Climate Standard Timing Test, yet the Protocol is stricter. The Protocol

states that the renewable energy project has to be operational on or later than January 1st, 2005.[55] Again, the assumption is that renewable energy projects before the arbitrary date of 2005 were not induced by the carbon market, but after 2005 they were built because of carbon offset funds. This is a significant assumption that makes the additionality of any project approved by the Protocol questionable. The problem with this test and the Green-e Climate Standard Timing Test is that not all projects created after these dates were in fact created to offset emissions. Many facilities are built to diversify energy sources, meet renewable portfolio standards, and meet other governmental requirements. In addition, the lucrative tax incentives offered to renewable energy developers on the federal and state levels are a driving force behind renewable energy construction that dwarfs any impact of REC or offset sales.

The third test is the legal and regulatory test.[56] This test is similar to the Green-e Climate Standard but specifically deals with renewable energy and mandatory greenhouse gas reduction caps. Green-e Climate Protocol for Renewable Energy certification does not involve in-depth research into confirming this test. For the projects on BEF's website, Green-e conducted only superficial inquiries into regulatory requirements. In some cases, this involved a simple internet search for articles that may have stated that a renewable energy facility was built in accordance with a law or renewable portfolio standard mandate. When nothing is found, Green-e deems the facility as additional and this test is complete.

"[T]he lucrative tax incentives offered to renewable energy developers on the federal and state levels are a driving force behind renewable energy construction that dwarfs any impact of REC or offset sales."

Green-e states that the project is not additional if it was built because of a legal or regulatory mandate. But in many cases renewable energy projects are built because of the existence of renewable portfolio standards, state solar expansion goals, or other regulatory requirements. Most renewable energy facilities are developed by renewable energy developers and investors that are separate from the utility. The developers then sell the electricity and RECs from the facility to willing buyers. Green-e often makes the case that there was no regulatory mandate that "specifically" required the construction of the facility. Although the developer of a facility is not bound by an RPS mandate, the utility is. A renewable energy developer would certainly be influenced to locate and construct a renewable energy facility in a state that is mandated to purchase renewable energy, since this almost guarantees its product will be purchased.

Green-e Climate senior analyst confirms that this could be a problem: "Our test doesn't make sure whether the developer built the wind farm because of the existence of the RPS." Many (if not all) BEF projects were incentivized by legal requirements such as an RPS.[57]

Although the Green-e Climate Standard may require an additional test that assesses whether offset funding was needed to move the project forward, the Green-e Climate Protocol for Renewable Energy does not. In fact, the Protocol completely ignores financial additionality even though it is one of the most important tests for carbon offsets. If it cannot be proven that carbon offset funding was necessary for the project, then it cannot be proven to any satisfactory degree that the carbon offsets are actually reducing greenhouse gases.

The Offsets Quality Initiative (OQI) confirms that financial additionality is the foundation for proving the existence of real reductions in greenhouse gases. OQI asserts that the reductions resulting from offset projects must be shown to be in addition to reductions that would have occurred without the offsets: "The economic incentives afforded by offset credit value should be reasonably expected to have enabled the implementation of an offset project. All high quality offset programs require rigorous demonstrations of additionality."[58]

BEF Carbon Offsets are never scrutinized in this way. The Green-e Climate Protocol for Renewable Energy states that "some stakeholders have suggested using a project-by-project financial additionality test." But the Center for Resource Solutions (CRS), the founder of Green-e, has decided that it would be an "administrative burden" and that "assessing project financial additionality is technically difficult, and any assessment made of a project would rely on subjective interpretation of financial data." The Green-e Climate Protocol for Renewable Energy goes even further and states, "Given the difficulty in determining a project's financial additionality, the administrative costs associated with the burden of proof would be quite high."

The CRS also understands the dilemma caused by tests for financial additionality. The CRS believes that a "financial additionality test makes eligible only those projects on the margin financially and therefore promotes the construction of marginal projects. This can have a perverse effect of pushing a project developer to build a smaller facility (in order to 'qualify' as financially additional) instead of a large facility that would take advantage of economies-of-scale."[59]

CRS is essentially stating that they are wary of using a financial additionality test because it would disqualify some "good" projects. This implies that CRS is motivated to "pass" projects even if they are not additional, because they believe or hope that the projects are reducing emissions. Instead of attempting to prove additionality, CRS has decided not to test any of the projects for financial additionality, fearing that companies would never pass unless they gave up on achieving economies of scale.

Green-e Climate certification is a good marketing gimmick. It makes BEF Carbon Offsets appear to be more legitimate

than the competitors' offsets. Yet Green-e makes numerous assumptions and never proves additionality. The flaws with the Green-e Climate Standard and the Protocol for Renewable Energy clearly show that BEF Carbon Offsets are not real, verifiable reductions in emissions.

> ***"Because renewable energy projects do not reduce emissions directly, there is no way to accurately monitor and measure emission reductions, thus offsets cannot be claimed."***

Financial Additionality and Federal Subsidies

Green-e ignores financial additionality and BEF assumes that the funding provided by carbon offset sales is essential in moving renewable energy projects forward. This assumption is hard if not impossible to prove, mainly because of lucrative federal subsidies.

RECs (and thus BEF Carbon Offsets) cannot have much effect on the development of renewable energy. Wind developers charge around $51 per megawatt hour for the electricity they sell to utilities. They get a little over $20 per megawatt hour in federal tax breaks plus up to $20 more in accelerated depreciation of capital.[60] In addition, there are myriad tax incentives, grants, and subsidies offered to developers on the state level. John Calaway, chief development officer for U.S. wind power at Babcock & Brown, an investment bank that funds new wind projects states, "[A REC sale] doesn't support building something that wouldn't otherwise be built."

The primary federal incentive for wind and solar energy during certain years is the Production Tax Credit (PTC) - a credit of 2.1 cents per kilowatt-hour. This tax credit has been essential to the industry's growth.

Wind project developers can also choose to receive a 30% investment tax credit in place of the PTC for facilities placed in service in 2009 and 2010, and also for facilities placed in service before 2013 if construction begins before the end of 2010.[61]

These federal subsidies are the major driver of renewable energy development. This is evidenced by the boom and bust cycles of renewable energy development in the U.S. that directly coincides with the expiration and extension of tax credit cycles.[62]

The sale of RECs may help renewable energy developer's profit margin, but it would be impossible to prove that the existence of a REC market or a carbon offset market was needed to motivate the construction of renewable energy facilities. Without this proof the offsets claimed to exist are questionable or false. This is exactly the case with BEF Carbon Offsets.

Dubious Assumptions of Emissions Reductions

Another essential aspect of establishing real and additional greenhouse gas emission reductions is that the claimed reductions must be accurately quantified and monitored. The Climate Trust asserts there are two aspects of carbon offsetting that are essential in assuring real and permanent reductions in greenhouse gases: (1) additionality and (2) monitoring/ verification.[63] As discussed, BEF Carbon Offsets lack proof of additionality. They also lack proper and accurate monitoring and verification. Because renewable energy projects do not reduce any emissions directly, there is no way to accurately monitor and measure emission reductions, thus offsets cannot be claimed.

The Green-e Climate Protocol for Renewable Energy makes an attempt to determine the amount of greenhouse gas emissions that are offset through the purchase of a specific BEF Carbon Offset. These figures are determined through a variety of questionable assumptions.

The first assumption is that Green-e classifies intermittent sources such as wind as baseload generation. Green-e does state that "[renewable energy sources] are not dispatchable and generally do not follow load."[64] This means Green-e understands that intermittent sources cannot generate energy when needed or meet peak electricity demands. Despite this acknowledgment, Green-e Climate assumes that "non-baseload [power sources] like wind or solar is actually backing down other sources like coal plants or other fossil fuels."[65] This assumption is built into Green-e's greenhouse gas reduction estimates.

However, as noted earlier, energy sources such as solar and wind cannot serve baseload generation because of their inherent variable nature.

To calculate the emission reductions from a specific renewable energy facility, Green-e incorporates two figures: build margin and operating margin.

The build margin represents the emissions reduction that is assumed to occur because the renewable facility was built instead of the typical power plant. This figure is calculated by determining the average current emission rates of plants in the region and the emission rates of plants that are planned to be constructed in the next few years.

The operating margin estimates the amount of reduced emissions caused by backing down other generating facilities when the renewable energy facility is generating power.

For solar and wind energy, the operating margin and build margin are weighted equally and then averaged in order to determine the emission reductions of a specific renewable energy facility. This is not based on actual monitoring. In fact, it is impossible to monitor emission reductions from a renewable energy facility simply because there are no direct emission reductions.

Another problem is the assumption that other power sources are backing down as a direct response to intermittent

renewable energy entering the grid. In fact, frequently the reverse is true; the growth in renewables prompts the construction of new natural gas turbines as back-up sources.

> ***"When a customer purchases a BEF Carbon Offset, they are not only getting a non-additional, non-verifiable offset, but part of the proceeds does not even go into deploying new renewable energy."***

The Green-e process for determining emission reductions is not based on empirical data. According to the Green-e Climate Manager, the methodology for determining emissions reductions "is definitely an assumption but hopefully as accurate as it can be."[66] Yet the Green-e Climate Standard states that in order for a carbon offset to be considered real an offset must "represent actual emissions reductions and are not artifacts of incomplete or technically flawed accounting."[67] Green-e also establishes that greenhouse gas reductions must be "readily monitored and verified."

If a trustworthy measurement of emission reductions cannot be completed as in the case with all BEF Carbon Offsets, then offsets that are claimed to exist may not be real. This means that BEF Carbon Offsets are neither additional nor verifiable.

Reinvesting and Supporting New Renewable Energy

BEF claims that the profit made from selling BEF Carbon Offsets is reinvested in new renewable energy. BEF states, "The revenues from BEF's Green Tag sales go directly to the generation of energy from new renewable energy facilities."[68] Yet this is technically not true. A significant portion of the profit goes into activities that do not promote renewable energy at all. BEF's other goal is to promote watershed restoration so a portion of the profit from selling carbon offsets funds the BEF watershed program as well.[69] When a customer purchases a BEF Carbon Offset, they are not only getting a non-additional, non-verifiable offset, but part of the proceeds does not even go into deploying new renewable energy.

BEF Project Portfolio

The majority of the BEF's renewable energy portfolio comes from wind farms (approximately 99.6%) and a smaller amount from solar facilities (approximately 0.3%). This is mainly due to wind farms generating more electricity than smaller solar installations. In the previous section, many problems were described that affect all of BEF Carbon Offset projects. What follows is a detailed look into the additionality of specific BEF projects.

Solar Projects

The BEF website lists solar facilities that produce the BEF Solar Energy Offsets. These projects include SunEdison's installations in Murrieta, Fresno, and Moreno Valley. These projects make up a total of 1.937 megawatts or .36% of the total renewable generation that is listed on the BEF website.

Project Name: Kohl's Fresno West

Capacity (megawatts): .406
Project Owner: SunEdison KHL22 Fresno, LLC
Project Type: Solar
Project Location: California

The Fresno West solar facility is a .406 megawatt project owned by and located at the Kohl's Department store in Fresno West.[70] In return for Kohl's commitment to buy electricity from the SunEdison Solar Electricity Company, SunEdison agreed to operate and manage the facility.[71]

http://polorise.wordpress.com/2009/07/28/kenya-harnesses-wind-solar-power-to-stave-off-brownouts/

Kohl's has made a significant push to install solar panels at stores across the country.[72] Although the department store chain retains the RECs for many of their facilities, SunEdison retains the RECs from Fresno West.[73] BEF purchases RECs from this facility and resells them as BEF Carbon Offsets.

Green-e claims that the Fresno facility is additional and can be certified under Green-e Climate. The basis for this decision was on three points: First, since it was built in 2007, Green-e assumes that this facility was built primarily because of the carbon offset market. Second, the Green-e Climate Protocol for Renewable Energy list of zero-emitting renewable resources includes solar. Lastly, Green-e claims that the facility was not built to satisfy any legal, regulatory, or other such mandate.

Problems with the Fresno Solar Facility

California (where this facility is located) began strongly incentivizing solar energy in 2007 to meet a stringent statewide goal.[74] This goal is a major aspect of California's Solar Initiative (CSI), an incentive program operated by the California Public Utilities Commission.[75] With incentives provided to solar developers primarily in the form of rebates, the CSI has set a goal to have 1,940 MW of solar power installed by 2017.[76] According to an article from the Milwaukie, Wisconsin Journal Sentinel, Kohl's launched its solar program in California because "it has an abundance of sunshine and an aggressive state program to encourage solar energy use. The other six states where Kohl's stated they may install solar energy systems also have incentive programs for businesses."[77]

"Apparently the carbon offset market was not a major or even minor factor in bringing this project to fruition, state based incentives and plenty of sunshine was."

A Forbes article also stated that the driving factor for the installation was the significant amount of state based incentives. Forbes states that the power purchase agreement between SunEdison and Kohl's makes economic sense in the state because of "significant solar rebate programs."[78]

Mark Culpepper, Vice President for Strategic Marketing at SunEdison, in testimony before the U.S. Senate Environment and Public Works committee, implicitly admitted that state based incentives are what drive these projects when he said, "we install wherever state policies are right."[79] Likewise, Jigar Shah, founder and chief strategy officer of SunEdison, said that regulatory and tax policies in New Jersey and California have made those states the company's biggest markets.[80]

Apparently the carbon offset market was not a major or even minor factor in bringing this project to fruition, state based incentives and plenty of sunshine was.

On top of the financial incentives, state renewable energy goals significantly influenced the Kohl's projects to be built. The Wisconsin Journal Sentinel article stated that "Kohl's solar deployment represents about 15% of the state's installations to date. When complete, Kohl's solar deployment will represent about 1% of California's 10-year objective."[81]

A Kohl's press release confirmed that the Kohl's solar facilities are being built to help meet California's renewable energy goals. The press release states, "Kohl's is working closely with the State of California to help meet the goals set by Governor Schwarzenegger and the Public Utility Commission."[82] Ken Bonning, Kohl's executive vice president of logistics, states "Through our solar introduction, we're further extending our commitment to green power and making a significant contribution to California's renewable energy goals."[83]

The Green-e Climate Protocol for Renewable Energy clearly states, "[S]everal utilities have built renewable energy to serve all their customers with some portion of renewable energy in response to local directives from municipal boards or utility commissions . . . these facilities would not be eligible for voluntary markets . . . ."[84]

When asked if the CSI goal was required or simply a goal, Aiden Floui from SunEdison replied, "It's a pretty firm policy goal."[85] With Kohl's solar facilities being incentivized by government subsidies and counting towards meeting a government goal, the additionality of this project is questionable at best.

Kohl's objective was clear. It aimed to expand solar energy at its facilities with the help of state and federal incentives. What is not clear is whether Kohl's needed the additional financing provided by the small amount of carbon offset funds. Once again, if additionality cannot be proved then there is no additionality at all.

www.treehugger.com

Project Name: Kohl's Murrieta

Capacity (megawatts): .346
Project Owner: SunEdison KHL38 Murrieta, LLC
Project Type: Solar
Project Location: California

Murrieta Solar Facility is owned and located at the Kohl's Department store in Murrieta, California.[86] The .346 megawatt solar facility is managed by the SunEdison Solar Electricity Company which has made an agreement to operate and manage the facility in exchange for Kohl's purchasing the electricity.[87] The RECs at the Murrieta Solar Facility are retained or sold by SunEdison.[88]

Problems with the Murrieta Solar Facility

This facility suffers from the same lack of additionality that was discussed with the Fresno facility. It cannot be proven that this project's completion required the extra funds from RECs. This project is also not additional because it is considered part of the California Solar Initiative.

Project Name: Moreno Valley Solar

Capacity (megawatts): 1.185
Project Owner: SunE WG113 Moreno Valley, LLC
Project Type: Solar
Project Location: California

The solar facility at the Walgreens Pharmacy in Moreno Valley, California is one of three solar facilities which BEF purchases their RECs from to sell to their customers as BEF Solar Offsets.[89] Although the 1.185 MW facility is owned by Walgreens, it is operated and managed by the SunEdison Solar Electricity Company in exchange for the purchase of electricity by Walgreens.[90] RECs generated by the project are kept or sold by SunEdison.[91]

Problems with the Moreno Valley Solar Facility

Green-e claims that the Moreno facility is additional and can be certified under Green-e Climate. Yet the interesting thing to note is that Walgreens started installing solar panel projects in 2007 as part of its plan to go 'green' and now Walgreens has almost 80 active systems in Connecticut, New Jersey, California, and Oregon. In September of 2009, Newsweek named Walgreens as one of the top 500 greenest companies of 2009.[92] Walgreens was committed to expanding solar energy on its buildings, which makes the argument that the carbon market pushed the project forward questionable.

Once again, no attempts were made by BEF, Green-e, or anyone else to prove that this project wouldn't have been completed without the extra funds from carbon offset sales.

http://getsolarsmart.com/home/?q=node/2

Wind Projects

The BEF website lists wind facilities that are part of the BEF Wind Energy Offsets. The projects include Forest Creek, Sherbino, Wilton and White Creek wind facilities, making up a total of 528.4 megawatts or 99.6% of the total renewable generation portfolio that is listed on the BEF website.

Project Name: E.ON Forest Creek Wind Farm, LLC

Capacity (megawatts): 124.2
Project Owner: E.ON Climate & Renewables North America Inc.
Project Type: Wind
Project Location: Texas

Forest Creek Wind Farm is one of four wind facilities that BEF purchases RECs from for resale as BEF Carbon Offsets.[93] Located just outside of Big Springs, Texas, the Forest Creek Wind Farm is a 125 megawatt wind facility with 54 turbines.[94] GE Energy Financial Services, Fortis Capital, and Wells Fargo invested more than $120 million on the wind farm.[95] Airtricity, an international renewable energy company operates and owns the facility.[96] Electricity generated at Forest Creek is sold in total to TXU Wholesale, and sold through TXU Energy, the largest deregulatory marketer in Texas.[97] The electricity is integrated into the Electric Reliability Council of Texas (ERCOT).[98]

Problems with Forest Creek Wind Farm

Although Green-e Climate claims this facility is additional and not built to meet any mandate, law, or regulatory measure, a Wells Fargo press release stated, "The project will help Texas meet its renewable energy requirement to produce 5 percent (5,880 megawatts) of its power from renewable sources by 2015."[99] In ERCOT's annual report to the Public Utility Commission of Texas regarding Renewable Portfolio Standard efforts, the Forest Creek Wind Farm is listed as a participating entity.[100] ERCOT representative, Warren Lasher, confirmed that every megawatt of electricity generated for the grid from a renewable resource is counted toward the state's renewable portfolio standard (RPS).[101]

The Green-e Climate Protocol for Renewable Energy allows a renewable energy facility to sell a portion of their RECS in a compliance market and still be eligible for selling "additional" offsets (i.e., offsets that are claimed to go beyond what would occur without the offset market). This is problematic. Even where the driving motivation to build a renewable energy facility is to help utilities comply with statutory renewable portfolio standards, Green-e will permit some of the RECs from the same facility to be sold as offsets even though they would exist without the

carbon offset market.

On another note, ERCOT representative, Warren Lasher stated that although wind power is being developed in Texas, investors are working toward building a larger number of coal powered plants.[102] This was followed up by an email from the ERCOT communications manager which stated, "Three coal units totaling 2,043 MW are committed for completion in the next five years, and 5, 080 MW of new coal units are under review by the ERCOT planning department."[103] This confirms that more fossil fuel plants are still needed to meet the consumers' electricity needs, putting doubt on Green-e's assumption that a wind facility causes other grid-connected facilities to reduce their output and/or prevents or delays the addition of new fossil fueled power plants. Lasher also stated that while wind power for Texas can generally be forecasted 48 hours in advance, there are backup resources of natural gas solely operating to make up for inconsistencies.[104]

"[An ERCOT representative] confirmed that the REC or carbon offset market was not the determining factor in moving wind projects forward."

Related to financial additionality, Lasher confirmed that the REC or carbon offset market was not the determining factor in moving wind projects forward. Lasher asserted federal production tax credits were the biggest reason for the construction of wind projects. This demonstrates a clear problem with offset additionality.[105]

Project Name: Sherbino I Wind Farm, LLC

Capacity (megawatts): 150
Project Owner: Sherbino I Holdings LLC and NRG Sherbino LLC
Project Type: Wind
Project Location: Texas

BEF purchases RECs from the Sherbino I Wind Farm to sell to its customers as BEF Carbon Offsets.[106] Sherbino I is a 150 megawatt capacity wind farm that consists of 50 turbines in Pecos County, Texas.[107] The project was a collaboration between BP Wind Energy and Pandoma Wind Power, a subsidiary of NRG Energy.[108] Electricity from the project is integrated into the ERCOT grid.[109]

http://locksparkfarm.wordpress.com/2008/06/29/wind-farm/

Problems with Sherbino Wind Farm

Sherbino I has problems similar to those at Forest Creek.

In ERCOT's annual report to the Public Utility Commission of Texas regarding Renewable Portfolio Standard efforts, the Sherbino I Wind Farm is listed as a participating entity.[110]

In addition, the Energy Information Administration states, "Without doubt, some State initiatives have significantly propelled the development of renewable energy capacity, especially in Texas . . . ."[111]

Because this facility is used to meet an RPS and ultimately was most likely built because of the RPS, there is a clear problem with additionality.

Project Name: Wilton Wind Project or FPL Energy Burleigh County Wind

Capacity (megawatts): 49.5
Project Owner: FPL Energy Burleigh County Wind, LLC
Project Type: Wind
Project Location: North Dakota

The Wilton Wind project has a capacity of 49. 5 megawatts and consists of 33 turbines near Wilton, North Dakota.[112] The project was jointly sponsored by FPL Energy, who built and operates the project, and the Basin Electric Power Cooperative, who has a long term contract to buy all electricity produced by the project.[113]

Problems with Wilton Wind Project

Basin Electric Power Cooperative (BEPC) Representative Jeremy Woeste attested that the project was built for a number of reasons, none of which point to carbon offset funds as a motivating factor. Woeste stated that the project was built to meet the Cooperative's nine state region Renewable Portfolio Standards. He also stated that the project was competitive

and moved forward because of tax credits and because the permitting and building process for wind is easier than traditional sources of electricity like coal.[114] Woeste stated that when the Cooperative becomes "more serious" about wind production, they will build additional natural gas facilities just to back up the wind.[115]

Also, when asked if the integrated wind would lead to the closing of traditional power facilities, like coal, Woeste stated, "No, there's no plan to shut facilities down. . . . We will always need something to back [wind power] up."[116]

For the purposes of additionality, the RECs generated from the Wilton Wind Energy Center are used to go toward North Dakota's voluntary RPS, which the BEPC members have elected to meet.[117] Those RECs not counted toward the RPS standard are "sold to others who may need RECs for compliance."[118] But the incentives provided by the RPS and tax credits make the additionality of carbon offsets from this facility questionable.

Project Name: White Creek Wind I

Capacity (megawatts): 204.7
Project Owner: White Creek Wind I, LLC
Project Type: Wind
Project Location: Washington

The White Creek Wind Project in Roosevelt, Washington has a full capacity of 204.7 megawatts and is comprised of 89 turbines, each capable of producing 2.3 megawatts of electricity.[119] The project was started in 2006 by the Last Mile Corp and four public utility districts (PUDs). The project was later sold to Lehman Brothers and then New York Life with an option for the PUDs, including Cowlitz PUD, Klikitat PUD, Lakeview Light & Power, and Tanner Electric, to buy the farm back in 20 years.[120] Each of these PUDs receives a portion of the electricity produced: Cowlitz receives 46%, Klickitat and Lakeview 26% each, and Tanner receives 2%.[121] The electricity is integrated into the region's electricity grid through Klickitat PUD and then the Bonneville Power Administration's Rock Creek substation.[122] BEF buys RECS from this project through the PUDs receiving its power.

"[T]hey will build additional natural gas facilities just to back up the wind."

Problems with White Creek

Despite the Green-e certification, the project lacks additionality because regulations motivated this project. The biggest investor of the project, Cowlitz PUD, is required by a Washington State Renewable Portfolio Standard (Initiative 937) to acquire 15 percent of their power from non-hydroelectric renewable energy by 2020.[123] A representative from Cowlitz PUD is quoted as saying, "the I-937 requirements pretty much sealed the deal on Cowlitz's involvement."[124] An article in The Daily News also confirmed that the facility was built because of the existence of the Renewable Portfolio Standard.[125] This means that a regulatory mandate was one of the leading reasons that motivated this project to be built, not the sale of green tags/carbon offsets. This precludes the additionality of any carbon offsets from this project.

In addition, the project does not lead to any direct and verifiable reductions in carbon dioxide. Because the energy from White Creek is fed into the BPA's electrical grid and integrated using hydropower, no direct reduction in emissions occur when White Creek is generating electricity.

BEF's Sphere of Influence

The sale of BEF Carbon Offsets is not limited to the customers that buy directly from BEF. BEF also sells carbon offsets at wholesale to a variety of other vendors in order for other companies to allow their customers to go "carbon neutral" or simply portray a "green" image for public relations purposes. This means that the sale of non-additional BEF Carbon Offsets is spreading throughout the entire United States.

Hundreds of companies around the nation have purchased BEF Green Tags and BEF Carbon Offsets.[126] Corporate customers that have purchased BEF Green Tags to support renewable energy have not been misled. BEF Green Tags are essentially RECs which simply represent a certain amount of renewable energy being created. This is something that can be monitored and verified. Yet corporate customers that purchase BEF Carbon Offsets and make claims about offsetting their carbon footprints are incorrect since BEF Carbon Offsets are neither real nor verifiable.

Companies including Northface, Silk Soymilk, REI, Aspen Skiing Company and many others are claiming that they have offset their greenhouse gas emissions with a BEF Carbon Offset purchase. Other companies such as greenshipping.com buy BEF Carbon Offsets in bulk at a discounted rate and then resell the offsets to customers who want to offset the greenhouse gases that are emitted from shipping a package.

BEF corporate customers that purchase offsets to improve their image (subsequently passing this added cost down to

their customers) and BEF corporate customers that resell BEF Carbon Offsets do not have an incentive to look into the validity of the offsets. When a business decides to go "green" with carbon offsets, it is primarily a marketing scheme to increase its customer base. Many organizations and businesses that use the "green" image for marketing do not care if the offsets they purchase are real and additional. As long as it looks legitimate and customers get a good feeling that they purchased from a company that supposedly cares about environmental stewardship, companies win. BEF corporate customers that purchase offsets for resale such as greenshipping.com also have no incentive to examine the validity of the offsets, since questioning the validity would mean questioning their entire business model.

"Many organizations and businesses that use the "green" image for marketing do not care if the offsets they purchase are real and additional….This means that there is no true accountability on BEF products."

This means that there is no true accountability on BEF products. BEF corporate customers will continue to purchase offsets regardless of whether they are actually reducing greenhouse gases; they will simply pass this cost down to their customers who will never know that their "carbon footprints" were never actually reduced.

Conflict of Interest?

The Bonneville Environmental Foundation operates in the voluntary offset market, not the compliance market (created by government mandates), yet BEF's direct or indirect participation in forming governmental policy has created conflicts of interest.

Angus Duncan, the president of BEF, has been with the organization since it began. BEF's website states that he has "been pivotally involved in the renewable energy market and policy development for more than three decades."[127] Mr. Duncan has helped shape public policy regarding climate change and energy for many years. He has also advocated for public policies that could increase BEF sales.

In addition to his position at BEF, Mr. Duncan chairs the Oregon Governor's Global Warming Commission and helped create the West Coast Governors Global Warming Initiative, both of which have significant influence in promoting climate change policies.

The West Coast Governors Global Warming Initiative, set up in 2003, tasks its members, including the Governors of Washington, Oregon, and California, to come up with detailed recommendations to reduce greenhouse gases.[128] This was a precursor to the Western Climate Initiative (WCI), set up in 2007 as a collaborative effort of seven U.S. states and four Canadian provinces to identify, evaluate, and implement measures to reduce greenhouse gases. The WCI built on work already undertaken individually by the participating states and provinces, as well as the West Coast Governors Global Warming Initiative that Angus Duncan helped create. The Western Climate Initiative's main strategy for reducing greenhouse gases is the implementation of a regional cap-and-trade program. This program would rely heavily on the use of carbon offsets. It has proposed that regulated facilities in this program would be allowed to use offsets to meet up to 49% of their mandated cap instead of purchasing permits to emit. This means offsets are a very significant aspect of a regional cap-and-trade program; offsets that could eventually be provided by BEF.

But where does Angus Duncan fall into the WCI cap-and-trade program? Mr. Duncan is the president of the Oregon Global Warming Commission (OGWC). The OGWC was created by the 2007 Legislature through House Bill 3543. The Commission's general duty is to "recommend ways to coordinate state and local efforts to reduce Oregon's greenhouse gas emissions consistent with Oregon's goals and to recommend efforts to help the state, local governments, businesses and residents prepare for the effects of global warming."[129] The OGWC recommends statutory and administrative changes, policy measures, and other actions to the Oregon Legislature. In the 2009 Oregon legislative session, the OGWC advocated that the state move forward with the WCI plan for a regional cap-and-trade program.[130] Mr. Duncan was a key player in making sure the OGWC recommended the regional cap-and-trade program.

Mr. Duncan's support for a cap-and-trade program, which would likely help BEF through increased sales of BEF Carbon Offsets, is potentially a serious conflict of interest. BEF sees nothing wrong with Mr. Duncan's position as the chair of the OGWC and his support of a cap-and-trade program.

http://blogs.wweek.com/news/2009/12/22/draft-enviros-pge%E2%80%99s-boardman-coal-plant-is-oregons-dirtiest/

A BEF employee has stated in the BEF blog, "[S]ince BEF is a non-profit, Angus would not earn profits from any increased sale of carbon offsets. Sure if BEF could sell more carbon offsets, the foundation would have more to invest in mission-related work, like putting more solar panels on schools and giving more support to regional watersheds, but no one at BEF would be lining his or her pockets with riches."

The BEF employee further states, "Also, it does not necessarily follow that the voluntary market in which BEF sells carbon offsets would be buoyed by a legislated cap-and-trade system. Sales may increase significantly as you assert or they may decrease substantially . . . ."

"Unfortunately, BEF has strayed from selling support for renewable energy into selling false claims of offsetting greenhouse gases."

Although increased sales of BEF Carbon Offsets probably won't directly "line his pockets," they would help grow BEF and thereby improve the possibility for increased compensation. The BEF employee stated that there is a possibility that sales could "increase significantly" or "decrease substantially" with the passage of a cap-and-trade program. It seems much more likely that sales would improve. This is supported by a recent Portland Business Journal article, in which Pat Nye, vice president of the climate business group at BEF, confirms that adding a new compliance-mandated market is expected to complement the nation's existing voluntary market: "In Europe, we've seen where a compliance market bolsters a voluntary market. That's what we are hoping for."[131]

In addition, Angus Duncan has used the OGWC to help indirectly market BEF products. The OGWC has a website called keeporegoncool.org. This website provides information on global warming, climate policy, ideas for taking action to reduce greenhouse gases, background on the commission and numerous OGWC documents.

Throughout the website, web links are dispersed that guide the web user towards purchasing and supporting BEF. On the "Take Action" tab, one action promoted by the OGWC is to buy offsets.[132] But not just any offset, only offsets certified by Green-e. This recommendation also offers a link to supporting "green power programs" in Oregon. The link drives web users to the Renewable Northwest Project site that displays a variety of green power programs, most of which advertise that they are selling BEF Carbon Offsets/Green Tags.[133]

A tab called "snow pack" is on the home page of the OGWC website. Once clicked, the website states that "snowpack in the Cascades is declining and mountain glaciers are melting." It also gives the web user a direct advertisement for BEF, stating, "You can help. . . . [B]uy a ski-green tag and offset the emissions from your trip." Ski-green carbon offsets are sold only by BEF and participating ski resorts.

Another promotion for BEF products appears on the "keeping score" page on the website. This page describes local initiatives that curb the release of greenhouse gases. One of the local initiatives directly promotes BEF by stating, "The City [of Ashland] partners with the Bonneville Environmental Foundation to offer Green Tags (Renewable Energy Credits) to customers of the municipal utility."[134]

With the president of BEF serving on the OGWC and the promotion of BEF products on the OGWC website, there appears to be a clear conflict of interest.

Conclusion

BEF's established purpose is to help support renewable energy. It has pursued this task by offering BEF Green Tags to customers. Originally BEF's product, BEF Green Tags, represented one megawatt hour generated by renewable sources. This definition was accurate since energy created by renewable energy facilities can be calculated and monitored. Unfortunately, BEF has strayed from selling support for renewable energy into selling false claims of offsetting greenhouse gases. Although BEF operates in a voluntary market, there are serious issues with selling a product with false claims. Customers are assuming that they are spending money to offset their carbon footprint even though no real reduction in greenhouse gases is occurring.

Through examination into BEF Carbon Offsets, it is clear that the BEF carbon offsets cannot be considered additional, real, or verifiable reductions in greenhouse gases. This is a problem both for BEF and the industry generally; carbon offset projects around the world suffer from the same problems.

The inquiry into Green-e certification of BEF Carbon Offsets paints another negative picture of the validity of carbon offsets.

"Since BEF is essentially receiving millions of dollars in government funding and possibly billions over the next twenty years, all Pacific Northwest utilities and ratepayers are forced into paying for bunk carbon offsets."

Despite certification by a third party, numerous problems remain with the underlying foundation of carbon offsets.

This is particularly problematic because the use of carbon offsets has become mainstream in voluntary and compliance markets for reducing greenhouse gases. If one truly believes that a national or international cap-and-trade program is necessary to reduce greenhouse gases then one should question the use and integration of carbon offset mechanisms in such programs. Carbon offsets could weaken the integrity and purpose of climate policies that are geared towards reducing greenhouse gases from human activities. Additionally, there are serious implications for the Bonneville Power Administration and Pacific Northwest ratepayers. Since BEF is essentially receiving millions of dollars in government funding and possibly billions over the next twenty years, all Pacific Northwest utilities and ratepayers are forced into paying for bunk carbon offsets. Although BEF claims to sell offsets in a voluntary market, the vast transfer of funds to BEF forces all BPA customers to be silent partners in the carbon offset racket.

> ***"Customers are assuming they are spending money to offset their carbon footprint even though no real reduction in greenhouse gases is occurring."***

This audit casts serious doubt on whether carbon offsets will ever be a product that can be verifiable and additional. The problems that plague the carbon offset concept will most likely never be solved, meaning that the offset mechanism will always be questionable in delivering real verifiable reductions in greenhouse gases.

In accordance with the findings in this report, the following recommendations are offered:

- Statutory mandates requiring businesses or individuals to purchase carbon offsets should be repealed. Oregon has such a mandate: House Bill 3283, passed in 1997.[135] This law mandates baseload natural gas and non-baseload fossil fuel power plants to offset carbon dioxide in accordance with a greenhouse gas emission standard. **Oregon should repeal House Bill 3283, since it has forced ratepayers to spend millions of dollars for "benefits" that cannot be verified.**

- **The Oregon legislature should avoid including carbon offsets as part of any future regulatory measure related to greenhouse gas reductions.** Carbon offsets weaken the integrity of any climate policy and lead to no real reductions in greenhouse gases.

- **The Bonneville Power Administration should reverse its recent decision to provide 20 years of annual funding to BEF.** By providing millions in funding, Pacific Northwest ratepayers are being forced to pay for carbon offsets that do not lead to real reductions in greenhouse gases.

- A deceptive trade practice is defined as an activity in which an individual or business engages that is calculated to mislead or lure the public into purchasing a product or service. Oregon's Unlawful Trade Practices Act prohibits false advertising and misrepresenting the characteristics, benefits, and qualities of the product or services offered. BEF is misleading the public into believing that real, verifiable, and additional greenhouse gas reductions have occurred from a BEF Carbon Offset purchase when they have not. Because of this, **the Oregon Attorney General should conduct a consumer fraud investigation of BEF Carbon Offsets, and offsets sold by other providers such as the Climate Trust.**

- Under the Uniform Deceptive Trade Practices Act, one cannot cause confusion or misunderstanding as to certification of goods or services nor can one engage in any other conduct which similarly creates the likelihood of confusion or of misunderstanding. BEF and Green-e create the likelihood of misunderstanding of the claimed benefits of BEF Carbon Offsets. The Center for Resource Solutions and, indirectly, BEF asserts that Green-e Climate certified offsets are additional when, in fact, they are not. **The Federal Trade Commission should conduct a consumer fraud investigation of BEF Carbon Offsets and the Center for Resource Solution's Green-e Climate program.**

Endnotes

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35. *Id.*

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