

**Comments on the Center for Resource Solutions’  
Draft Green-e Greenhouse Gas Protocol for Renewable Energy**

**Electronic Comment Form**

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**Draft Green-e Protocol GHG Emission Reductions from Renewable Energy**

Please comment on the *Draft Green-e Protocol for GHG Emission Reductions from Renewable Energy* ([http://www.green-e.org/getcert\\_ghg\\_re\\_protocol.shtml](http://www.green-e.org/getcert_ghg_re_protocol.shtml)).

**Comment Space:**

*(Add additional pages if necessary)*

Attached are joint comments on the *Draft Green-e Protocol for GHG Emission Reductions from Renewable Energy* submitted by ERT on behalf of the following organizations:

- *The Environmental Resources Trust, Inc.,*
- *The Pew Center on Global Climate Change,*
- *The California Climate Action Registry, and*
- *The GHG Experts Network.*

# **Joint Comments on the Center for Resource Solutions Draft Green-e Greenhouse Gas Protocol for Renewable Energy**

**October 10, 2007**

## **Purpose**

This document presents the joint comments of the Environmental Resources Trust, California Climate Action Registry, the Greenhouse Gas Experts Network, and the Pew Center on Global Climate Change (“commenting organizations”) in response to the Center for Resource Solutions’ “Draft Green-e Greenhouse Gas Protocol for Renewable Energy.” (“Draft Green-e Product Standard for RE”) The commenting organizations would like to commend the Center for Resource Solutions for its leadership in the renewable energy industry, for its commitment to consumer protection, and for its development of the high integrity Green-e Program for tracking the usage of Renewable Energy Certificates (RECs).

## **Introduction: The Importance of Renewable Energy, Greenhouse Gas Offsets, and Offset Quality**

The commenting organizations are strong supporters of renewable energy and believe that it has a critical role to play in our fight against global climate change. We believe governments should enact stronger policies to spur additional renewable energy investments. However, it is vitally important that emerging policy achieves our collective end goal, reduction in greenhouse gas concentrations in the atmosphere. We support the promotion of renewable energy through mechanisms such as allowance set-asides for new capacity under an emissions cap and trade scheme, aggressive Renewable Portfolio Standard legislation, and tax credits or feed-in tariffs. We believe the carbon market can play a role in funding renewable electricity projects, but that there are several key challenges that should be addressed as the U.S. moves from a voluntary to a regulatory system.

Greenhouse gas offsets are also an important component of our fight against climate change. A greenhouse gas offset displaces, avoids, or sequesters greenhouse gas emissions through the

implementation of a specific project intended to compensate for emissions occurring at another source. The basic promise a greenhouse gas offset makes is that greenhouse levels in the atmosphere will be the same whether the purchaser retires an offset or reduces its own onsite emissions.

Greenhouse gas offsets are an important policy tool that can be integrated into an emissions cap and trade system. Offsets provide capped entities access to lower cost mitigation opportunities, which reduces overall costs for society. Offsets can help drive the development and deployment of new, lower carbon practices and technologies. Offset projects also often have environmental co-benefits, such as reduced air and water pollution, improved habitat and preservation of biodiversity, reduced soil erosion, and improvement of watersheds.

Accurately accounting for the greenhouse gas benefits of both renewable energy and offsets and assuring that they are properly represented to consumers are of paramount importance to the credibility of both the voluntary and regulated greenhouse gas offset markets. To this end we appreciate the fact that the CRS draft GHG Product Standard version 2 Section C-3 (3) makes renewable projects ineligible for CRS certification if they fall within a region “with a legally binding GHG cap on electricity...”. We fully agree with this CRS conclusion and believe that in the near-to-medium term, this stipulation will significantly phase out the number of CRS eligible projects. Our concern is that in the more immediate time frame, promoting these types of projects as viable GHG offsets domestically will damage their credibility and limit their utilization in emerging climate policy.

Much has been written over the past two years in the popular press questioning the integrity of some offsets sold in the U.S. voluntary market. Both the Federal Trade Commission and the General Accounting Office have launched investigations into claims that some consumers have not received legitimate offsets. Perceptions of questionable environmental integrity by observers of the voluntary market pose a serious threat to the integration of greenhouse gas reduction mechanisms in future regulatory policy.

Moreover, many states are implementing greenhouse gas reduction policies and programs, including registries and emissions caps. Most observers believe that federal climate legislation will be enacted in the next several years. The United States is beginning the transition from a smaller, mostly voluntary offset market to a larger, regulatory market. It is important to structure voluntary carbon markets so that this transition occurs smoothly. While the precise structure of regulation is for the most part unknown, the basic frameworks are fairly well understood. These frameworks should be taken into account when establishing products for the voluntary market.

Our comments on the Draft GHG Product Standard for Renewable Energy fall into two categories: 1) Additionality and 2) Ownership and Double Counting. Our conclusion is that renewable electricity is not well suited to serve as the basis for greenhouse gas emission offsets in the future U.S. market due to several key challenges. We also provide a recommendation for a treatment of Renewable Energy Certificates (RECs) that allows them to participate in the voluntary greenhouse gas markets, but not as an offset. This treatment provides a very large market for RECs and allows for significant growth in renewable energy.

### **Additionality**

The most important characteristic of a greenhouse gas offset is its additionality; meaning that the financial value associated with selling greenhouse gas emissions reductions is a key consideration in deciding whether or not a project will be implemented. A rigorous demonstration of additionality is the basis of a credible offset. If a project fails to demonstrate additionality, then the basic promise that an offset is equivalent to an onsite reduction is violated. Due to this, a credible greenhouse gas offset product standard must incorporate a rigorous procedure for determining additionality. Projects that fail to meet commonly accepted tests for additionality should not be eligible to sell greenhouse gas offsets.

There are a number of different tests for additionality. The combination of additionality tests applied should provide a high level of assurance that the majority of projects that are determined to be additional are in fact projects that would not have happened anyway. We support the analysis that the World Resources Institute submitted in its comments during the first comment period regarding additionality. In summary, it appears that the Green-e Draft Protocol's proposed

additionality tests will qualify as additional any new renewable energy project that is not required by legal or regulatory obligations. For some types of renewable energy projects, such as those involving solar photovoltaics, it can be reasonably assured that projects meeting these criteria will almost always be additional. For other types of renewable technologies, such as biomass and wind, the picture is not so clear. Despite the rarity of these technologies in the overall U.S. generation mix, a significant subset of wind and biomass projects would probably be implemented regardless of REC purchases because they are cost competitive without additional revenue in many circumstances.

According to the National Renewable Energy Laboratory (NREL) data cited in the latest draft of the Green-e Protocol, up to 1,400 MW out of 4,000 MW of renewable capacity installed to meet non-RPS market demand between 2000 and 2005 was *not* built to serve green power markets.<sup>1</sup> We are concerned that Green-e's currently proposed additionality criteria will not effectively screen out this apparently significant cohort (at least 35 percent) of business-as-usual projects in the future, and the risk is that the Green-e Protocol will be subject to public criticism if such projects are credited and later singled out for scrutiny.

However, we believe that it is possible to specify further additionality criteria for these types of projects that would be both practical and credible. Despite this, in the context of the U.S. market, there are still impediments to the sale of GHG offsets from renewable energy projects, even if those projects are additional. This stems from two related and fundamental issues: ownership of emissions reductions and double counting of emissions reductions.

### **Ownership and Double Counting of Emissions Reductions**

The commenting organizations support the Draft GHG Product Standard for Renewable Energy's assertion that the primary greenhouse gas effect of renewable energy projects is a reduction in combustion emissions from grid-connected electricity generation. And that this reduction is the result of two principle effects: "1) a reduction because the renewable energy facilities instead of new a fossil-based power plants, and 2) a reduction caused by displacing potential emissions from existing fossil-based power plants currently operating on the grid."<sup>2</sup>

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<sup>1</sup> Green-e Protocol for Greenhouse Gas Emission Reductions from Renewable Energy, September 2007. pp. 34-35.

<sup>2</sup> Green-e Protocol for Greenhouse Gas Emission Reductions from Renewable Energy, September 2007. page 15.

The Draft GHG Product Standard for RE defines a REC as “The property rights to the environmental attributes from generating electricity from renewable energy sources.”<sup>3</sup> Moreover, it states that, “In order for RECs to be eligible under this program, they must contain all the greenhouse gas emissions reduction benefits from the generation of non-emitting, grid-connected electricity.”<sup>4</sup> Given the current accounting and tracking practices in the U.S. electricity market, we believe that it is very difficult for this condition to be met. This is because the physical greenhouse gas emissions reductions occur at the fossil fuel fired power plants elsewhere on the grid and are registered in the direct (Scope 1) footprint of the generating source. Thus, the emissions are “owned” by the fossil fuel generators and emissions reductions are reported by the fossil fuel generators.

It is not currently possible for a renewable generator selling a REC to assure that all of the emissions reductions benefits are being conveyed with the REC and that those emissions reductions are not being counted or claimed by other grid-connected entities whose emissions are impacted by the addition of renewable generating capacity. These reductions are reflected by both power plants reporting Scope 1 emissions, as well as end users reporting Scope 2 emissions. Currently, “stack-based” accounting is the primary approach used to report greenhouse gas emissions. This is likely to be true for emerging cap and trade regimes (whether generator-based, e.g., RGGI, or load-based, e.g., Western Climate Initiative) and the multi-state climate registry (now 39 states), and will almost certainly be the case for federal legislation as well. Fundamentally, we do not believe that renewable energy producers have an unambiguous ownership claim to the emissions reductions associated with physical reductions occurring elsewhere on the grid that they can sell.

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<sup>3</sup> Green-e Protocol for Greenhouse Gas Emission Reductions from Renewable Energy , September 2007. page 13.

<sup>4</sup> Green-e Protocol for Greenhouse Gas Emission Reductions from Renewable Energy, September 2007. page 6

The implication of this approach to defining ownership and conducting accounting for emissions is that selling an offset from a renewable energy project may involve double counting. The Draft RE Protocol defines double claiming (or double counting) as: “a situation [in which] the same GHG reduction is sold to more than one party, resulting in a situation of double claiming or double counting.” We concur that this is one type of double counting and commend the Draft GHG Product Standard for RE for including provisions to prevent this from occurring. However, as proposed, the Draft GHG Product Standard for RE would allow for double counting in other areas under current greenhouse gas accounting practices for U.S. electricity markets.

There are three areas in an electricity grid that the emissions reductions associated with the addition of a renewable energy project will manifest:

1. In the direct emissions of fossil fuel generators;
2. In the reduced average grid intensity that is registered in the scope 2 emissions of reporting entities; and,
3. From the sale of RECs as emissions reductions products.

As noted previously, the physical greenhouse benefit of renewable energy occurs from fossil fuel generators emitting less. Renewable energy generation acts to lower the direct emissions of fossil fuel generators connected to the same grid. If a renewable energy generator sells the greenhouse gas benefit resulting from the production of a REC, and this physical emissions reduction occurs at a fossil fuel-fired plant, that environmental benefit will be reflected twice, once by the purchaser of the REC and once by the lower emissions of the fossil fuel fired plant. Without a means for the direct emissions of fossil fuel generators to be adjusted to exclude the emissions reductions resulting from renewable generation from their stack-based accounting, allowing the sale of a REC as an offset would be allowing double counting, which the Draft GHG Product Standard for RE clearly and correctly wants to prevent.

Renewable energy projects can make very good greenhouse gas offset projects under some circumstances. Greenhouse gas offsets are only valid, however, where their additionality is clear and ownership claims to their associated emissions reductions are uncontested and

unambiguous.<sup>5</sup> Because power plant owners in the United States are increasingly beginning to track and report their greenhouse gas emissions (a precursor to making claims to emission reductions) and because regulation of greenhouse gas emissions from fossil fuel power plants in the United States is highly likely in the near- to medium term (in which case the legal ownership of greenhouse gas reductions by those plants will very likely be unambiguous), we strongly believe that the certification of voluntary greenhouse gas offsets from grid-connected renewable energy projects is problematic at best and will become increasingly untenable in the near future.

Certifying the use of RECs as greenhouse gas offsets is therefore a practice we believe will come under increasing scrutiny and skepticism as the U.S. climate policy landscape evolves. We believe that the renewable energy community would be better served by the establishment of a more credible greenhouse gas accounting framework for renewable power purchases that would complement, and be compatible with, any likely future greenhouse gas regulatory system for the power sector in the United States.

### **A Recommended and Sizable Role for RECs in the Voluntary Market**

It is clear that RECs are not greenhouse gas offsets. We have described above why we believe that it is improper to treat them as such. However, we propose a recommended treatment that allows RECs to play a significant role in the voluntary market. This treatment provides a large market for RECs and allows for significant growth in renewable energy to serve the voluntary market, in addition to that provided for renewable energy under future regulation and by renewable portfolio standards.

We believe that a REC represents unique and exclusive proof that one megawatt-hour (MWh) of electricity has been generated from a qualifying renewable resource connected to the grid. The majority of renewable energy is clearly emissions free electricity. One of the original purposes of RECs was to facilitate the ability of consumers to purchase from renewable energy generators, regardless of its availability on their local grid.

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<sup>5</sup> For example, under the Kyoto Protocol's Clean Development Mechanism the governments of developing countries, by approving emission reduction projects from renewable energy projects provide a de facto assignment of emission reduction property rights to project developers instead of owners of fossil fuel power plants.

We believe that RECs can be a useful tool for accounting for an entity's Scope 2 electricity emissions. Under the international greenhouse gas accounting practices as defined by the World Resources Institute/World Business Council for Sustainable Development GHG Protocol, entities report both their onsite direct emissions (Scope 1) and the indirect emissions associated with their consumption of electricity (Scope 2). Note that for Scope 2, the emissions embodied in the purchased electricity physically occur elsewhere, and so are also accounted under some other entity's Scope 1 emissions. We propose the following for voluntary market Scope 2 accounting of greenhouse gas emissions: for end user purchases of RECs in the voluntary market, we believe it is appropriate to treat these purchases as zero emissions electricity.

RECs, as a representative of unique and exclusive proof of one MWh of electricity generated from a qualifying renewable resource, are an effective means of representing zero emissions electricity. RECs should not be used as offsets for Scope 1, Scope 2, or Scope 3 purposes, but rather can be used as an emissions tracking tool for scope 2 by end users. This can be accounted for by multiplying by zero (to represent the zero emissions associated with its generation) the number of MWh of electricity for which RECs have been purchased and retired. The remaining MWh's should be multiplied by an adjusted average grid intensity factor. Under this accounting approach, a company could purchase RECs equal to 10% of its megawatt hours under scope 2 and multiply those MWh's by zero. The remaining megawatt hours (in this case 90%) would then be multiplied by the average grid intensity factor to calculate its remaining scope 2 emissions profile.

However, there are still issues concerning double counting that will need to be addressed with this proposed approach, but that we believe are surmountable.

Scope 2 emissions footprints are most commonly calculated using average emission factors rates provided by a utility when available, or the Emissions and Generation Resource Integrated Database, or e-GRID, administered by the US Environmental Protection Agency. The e-GRID average represents the average GHG emissions from a region's power generation mix. *When a single entity privately claims a REC as zero emission electricity for a MWh of its Scope 2 inventory, the average grid intensity for all other MWh's consumed should be proportionally*

*increased.* If a consumer purchases RECs from a wind plant and uses them to make a GHG reduction claim, the zero emissions electricity claim is double counted because it is already reflected in that end users (and others connected to the grid) proportionally lower Scope 2 emissions as measured by the average grid intensity factor. This is simply an artifact of current accounting systems and is no way the fault of the renewable generators or the purveyors of RECs, but should be addressed as soon as possible.

We propose the use of a comprehensive, closed accounting system that tracks all generation, not just renewable. Infrastructure has been put in place to develop a credible accounting system for RECs and to determine Scope 2 emission factors in the form of certificate tracking systems such as the Generation Attribute Tracking System (GATS) and Western Region Electricity Generation Information System (WREGIS). These systems can both prevent the double counting of RECs and provide a service to all entities by providing a credible and consistent average Scope 2 emission factor that nets out REC retirements. Such an approach respects the private claim by REC consumers of their zero emission electricity purchases, ensures the environmental integrity of these claims, and provides an added incentive for further REC purchases by penalizing those that fail to support green power as much as it rewards those that do.

In the interim, we believe that a credible accounting system should be established by, for example, the Green-e administrators that could accurately and effectively track RECs bought and sold in the voluntary market. This group could then publish an accurately adjusted average grid intensity factor for those regions that Scope 2 reporters in the voluntary market could then use. This will lay important groundwork for a future regulatory accounting system that more accurately tracks and conveys ownership and the emissions reduction benefit associated with the purchase of renewable energy.

We support the development of these certificate tracking systems so that the net average grid intensity can be adjusted to accurately reflect the impact of renewable energy when those projects are selling RECs. New guidance will need to be given to entities in the United States so that they can accurately identify the appropriate Scope 2 emission factor to use and that allows them to unambiguously claim ownership over zero emissions electricity represented by a REC. While much of this groundwork has already been laid, more work is needed for this accounting

system to work effectively in the U.S. electricity market. Because of its involvement in certificate certification and tracking initiatives across the United States, CRS is uniquely suited to take on an interim role in ensuring that grid emissions factors are adjusted to reflect renewable energy sales in the voluntary market. We support the generation and sale of REC's as a means of supporting renewable energy and as an accounting tool for entity-level Scope 2 emissions, but do not believe it is appropriate to treat RECs as offsets.