[SUBMITTED ELECTRONICALLY VIA EMAIL TO FossilFuelReduct-2010-STD-0031@ee.doe.gov]

December 15, 2015

Dr. David Danielson, Assistant Secretary
Office of Energy Efficiency and Renewable Energy (EERE)
U.S. Department of Energy (DOE)—Forrestal Building
1000 Independence Avenue, SW
Washington, DC 20585

Re: Comments of Center for Resource Solutions (CRS) on Supplemental Notice of Proposed Rulemaking (SNOPR), Fossil Fuel-Generated Energy Consumption Reduction for New Federal Buildings and Major Renovations of Federal Buildings, Docket No. EERE–2010–BT–STD–0031

Dear Assistant Secretary Danielson:

CRS appreciates this opportunity to comment on the October 2014 Proposed Rule for Fossil Fuel-Generated Energy Consumption Reduction for New Federal Buildings and Major Renovations of Federal Buildings[1] ("SNOPR"). These comments focus on Section III.D.2 (pg. 61709-10) of the SNOPR, "Off-site and On-site Renewable Energy and Renewable Energy Certificates."

Introduction to CRS

CRS is a 501(c)(3) nonprofit organization that creates policy and market solutions to advance sustainable energy. Since 1997, CRS has been instrumental in the development of landmark state, regional and national renewable energy and climate policies. CRS has also provided regular technical assistance and guidance to attribute tracking systems and other renewable energy functional support entities around the country.

CRS also administers the Green-e® programs. Green-e Energy is North America's leading independent consumer protection program providing certification and verification for renewable electricity and renewable energy certificates (RECs) in the U.S. voluntary market. In 2013, that program certified the majority of the U.S. voluntary renewable energy market and 89% of retail REC sales. Green-e Climate is a global retail standard for carbon offsets sold in the voluntary carbon market. Green-e Marketplace recognizes and verifies the claims of companies that use certified renewable energy and carbon offsets to reduce their impact. Stakeholder-driven standards supported by rigorous verification audits are a cornerstone of Green-e and enable CRS to provide independent third-party certification of environmental commodity transactions in voluntary markets. The Green-e environmental and consumer standards are overseen by an independent governance board of industry experts, including representatives from environmental nonprofits, consumer advocates, and purchasers. Our standards

[1] Fossil Fuel-Generated Energy Consumption Reduction for New Federal Building and Major Renovations of Federal Buildings. 79 Fed. Reg. 61694 (October 14, 2014). Department of Energy (amending 10 CFR Parts 433 and 435). Available online at: https://www.federalregister.gov/articles/2014/10/14/2014-24151/fossil-fuel-generated-energy-consumption-reduction-for-new-federal-buildings-and-major-renovations.

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have been developed and are periodically revised through an open stakeholder process. Green-e program documents, including the standards, contract templates, and the annual verification report, are available at www.green-e.org.

Support for the SNOPR

First, we would like to express our support for several requirements proposed in the SNOPR.

1. *RECs are required for any renewable electricity usage claim, regardless of the purchasing or consumption method used.*

The SNOPR includes the following requirements.

> *"To receive credit against the reduction targets under any of the above scenarios, an agency would be required to ensure that the renewable energy environmental attributes are dedicated to meeting the fossil fuel reduction requirements of the subject new or renovated building and not used elsewhere. The renewable energy environmental attributes would need to be retained by the agency" (SNOPR, III.D.2, pg. 61710).*
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> *"Federal agencies that choose to use on-site renewable electricity generation would not be permitted to transfer the environmental attributes of the on-site generation. In other words, agencies would not be permitted to convey the REC associated with the onsite project to an off-site project" (SNOPR, III.D.2, pg. 61710).*

Since usage of any specified generation source on the shared electricity grid can only be determined contractually, RECs are used to demonstrate renewable electricity purchasing, delivery, and use within the broader context of functioning voluntary and compliance renewable electricity markets in the United States. RECs represent and convey the renewable, environmental and social attributes of renewable electricity generation to the owner, along with the legal right to claim usage of that renewable electricity.[2] Without RECs such a claim could not otherwise be substantiated. Consequently, use of electricity without RECs cannot be claimed as renewable or in this case non-fossil fuel-generated energy and must be classified and counted as "null power," having the attributes of the residual regional grid mix.

As such, RECs are essential to any renewable electricity usage claim in the U.S., regardless of whether renewable electricity is purchased from an electricity provider or directly from a generation facility, unbundled RECs are purchased from a REC marketer, renewable electricity is delivered by a utility in conformance with a state requirement (e.g. state Renewable Portfolio Standard), or renewable electricity is consumed from an owned or on-site, grid-connected facility. Despite any differences between states and voluntary programs in terms of eligibility requirements, RECs are uniformly used as the primary means of tracking grid-connected renewable electricity generation and the ownership of, and rights to claim, all of its associated attributes. Trading a REC in the U.S., whether bundled or unbundled with underlying electricity, effectively transfers ownership rights over all of the attributes of

[2] Jones, T. (2014) *The Legal Basis of Renewable Energy Certificates*. Center for Resource Solutions. Available online at: http://www.resource-solutions.org/pub_pdfs/The%20Legal%20Basis%20for%20RECs.pdf.
Also see U.S. Environmental Protection Agency (EPA). (2008) *Renewable Energy Certificates*. Available online at: http://www.epa.gov/greenpower/documents/gpp_basics-recs.pdf.

the associated renewable electricity generation to the REC purchaser. They are part of the machinery of electricity markets. They function as the currency for the renewable energy market.

It is therefore both appropriate and necessary for DOE to require that RECs are acquired and retired for purchased electricity (meaning RECs may be retired on behalf of federal agencies) and that RECs are retained for electricity consumed from owned or on-site renewable generation facilities that is claimed or counted toward fossil fuel-generated energy consumption reduction requirements.

2. Off-site renewable electricity usage and low-cost options should be available to federal agencies.

According to the SNOPR:

> *"On-site renewable resources may not be feasible or available in many cases. Thus, use of off-site renewable electricity resources and/or Renewable Energy Certificates, may be necessary. In addition, with offsite renewable resources, agencies may be better able to optimize production or reduce costs because of resource availability, economies of scale, and other factors" (SNOPR, III.D.2, pg. 61710).*

First, to reiterate, RECs are the way attributes and usage of specified renewable generation are tracked and the instrument that makes it possible to claim use of grid-connected renewable energy in the U.S. RECs must therefore be used/retained even in the case of consumption from an on-site renewable resource. RECs can be sold separately from electricity (called "unbundled RECs"), the use of which DOE appears to be referencing in this statement and elsewhere in the SNOPR. This is an important distinction to make.

Regarding off-site and unbundled REC purchasing options, thirty years ago in the U.S., purchasing renewable energy/attributes was very difficult, and in most areas around the country, impossible. In the last two decades, tremendous public and private resources have been invested to create infrastructure and mechanisms to allow renewable energy generators to have access to markets, largely as a means to allow demand to drive growth in the industry. The effectiveness of these investments is reflected in the now low transaction costs, and ease, associated with renewable energy purchasing.

While we certainly encourage DOE to create requirements that incentivize new investments in renewable energy and impact the mix of built resources on the grid to the greatest extent possible, participation in renewable energy markets and use of off-site grid-connected resources can convey the same benefits and claims to federal agencies at reduced costs while supporting market efficiencies that allow renewable energy to be built where it makes the most sense to build it. Purchasing off-site renewable energy and unbundled RECs has an important aggregate impact on the supply of renewable energy, and long-term purchasing through these options may do as much to support project development and continued operations as other more expensive options.[3]

Responses to DOE Concerns and Requests for Comments in the SNOPR

Next, we would like to address several concerns raised by DOE and respond to certain specific requests for comment in the SNOPR.

[3] See Holt *et al.* (June 2011) *The Role of Renewable Energy Certificates in Developing New Renewable Energy Projects*. National Renewable Energy Laboratory (NREL). Technical Report NREL/TP-6A20-51904. Available online at: http://apps3.eere.energy.gov/greenpower/pdfs/51904.pdf.

1. *Concerns with federal agencies' lack of control over off-site renewable energy and generation at facilities generating unbundled RECs*

According to the SNOPR:

> *"DOE has some concerns with allowing the use of off-site renewable energy, including Renewable Energy Certificates, without limitation. DOE is concerned that energy representing a Renewable Energy Certificate that is not under substantial control of the Federal agency claiming the REC because ECPA, as amended, requires that each Federal agency meet the reduction requirements for each of its Federal buildings" (SNOPR, III.D.2, pg. 61710).*

Again, we assume that DOE is referring to unbundled RECs in particular and acknowledges that RECs must be used regardless of whether renewable energy is consumed from an on-site source or purchased from an off-site source.

Regarding the ECPA requirement that federal agencies meet reduction requirements for buildings, this requirement pertains to federal agencies' *own use and consumption*, which can be addressed by purchasing renewable electricity from the grid, even from non-controlled and existing sources. This is not equivalent to a requirement for reductions of fossil fuel use on the grid overall. But federal agencies can effectively fuel switch by changing purchasing options, by purchasing renewable electricity or RECs alone from the grid, and this will entitle them to a reduction in their own use of fossil fuel generated electricity. This principle is discussed further under Nos. 2 and 3 below on concerns around "additionality" and impact.

Depending on the RECs or renewable electricity that are in fact purchased and supply and demand in the market at the time of purchase, an individual purchase may not result in the creation of new renewable generation or a new renewable plant to supply that renewable electricity, that REC, for the federal agency. The REC or renewable electricity may be sourced from existing renewable plants on the grid and/or an existing supply of RECs. However, in this case, the purchaser (the federal agency) is nevertheless receiving renewable electricity and its benefits (given certain quality assurances, for example, provided through Green-e certification), which are the property of the REC owner and do not depend on whether the project is existing or new. The federal agency may therefore legitimately claim to have changed its own usage and reduced its impact. The purchase will contribute to overall, aggregate demand for renewable energy, which will ultimately drive the creation of new renewable sources and additional generation.

Regarding control over generation with respect to the right to claim use of renewable energy, federal agencies need not have direct control over generation in order to claim use of that generation. It is also important to distinguish between control over generation and control over attributes. The attributes of generation, including fuel type and the associated impacts and benefits, occur at the point of generation and are separate from electricity; they are not embedded in the electrons and do not travel along the wires to consumers. The market for RECs is the market for renewable attributes in the U.S. and it allows customers to express demand for and effectively control the attributes of their electricity generation. As such, these requirements for federal agencies are concerned with attributes, and the REC purchaser is in fact the entity that is paying for and controlling the renewable attributes, including fuel type used. Green-e certification reduces any risks associated with control, including with double counting and double claims.

2. Concerns with the additionality of off-site renewable energy and generation of unbundled RECs

The SNOPR includes the following requirement and statement.

> *"Agencies would be required to ensure that any renewable energy resources used to meet the rule represent new capacity and are not drawn from existing resources" (SNOPR, III.D.2, pg. 61710).*
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> *"DOE is also concerned […] that a REC may not represent new or additional capacity" (SNOPR, III.D.2, pg.* 61710).

It is not necessary for DOE to require that renewable energy is not sourced from existing resources in order for federal agencies to make valid renewable energy usage claims or indeed for federal agencies to have an impact on the development of new renewable resources (see No. 3 below).

The purpose of the voluntary renewable energy market and of the REC instrument is to allow grid customers to access output from new and existing renewable facilities. Even in the case that consumers express specific preferences for new capacity, this does not change the claim that may be made by these consumers, and this does not equate to project-level "additionality" as it has been defined in a carbon market setting. Renewable facilities are not being tested for additionality in any way that would enable a claim to overall or grid-wide change. Even if DOE were to require that federal agencies exclusively source from new renewable sources built specifically to serve these agencies, it could not necessarily conclude that there will be a proportionate decrease in fossil fuel usage on the grid beyond a baseline since, for example, use of fossil fuels may simply be reallocated to other grid users or increase as a result of other factors. In this case, both the claim and the impact remain the same as if renewable energy was purchased from existing off-site facilities.

Use is also critical to the development of new resources. Ultimately, it will be growth in overall demand for renewable resources that leads to increased development of renewables on the grid. Preventing federal agencies from participating in the broader renewable energy market or to support and sustain existing renewable resources in this market will not help the market to efficiently produce new renewable resources or send the appropriate market signals to drive and sustain projects. In the extreme, driving investment in renewable energy to less cost-effective nearby or on-site projects could slow the overall rate of new renewable energy development.

DOE may choose to incentivize purchases and usage that more directly impact the development of new facilities (such as on-site development and direct, long-term renewable power or REC purchase agreements with new facilities), and we encourage this, but we recommend that other, more affordable and flexible options remain available depending on the circumstances of individual agencies. These agencies would regardless be affecting demand-side change on the grid simply by purchasing in the market. DOE may also wish to consider other purchasing requirements that increase the impact of purchases on renewable energy development but that do not limit the purchasing options available, such as requirements for long-term purchasing.

It is however important that DOE require that renewable energy generation that is used to meet the rule not be double claimed or used to meet a state or other regulatory requirements for renewable energy (such as a state Renewable Portfolio Standard (RPS)). This "regulatory surplus" allows federal agencies in this case to go above and beyond what is required by law with their purchases and ensures that they are supporting resources that rely on demand from the voluntary market. Regulatory surplus can be achieved by ensuring that the RECs are retired by or on behalf of the federal agencies and not counted

toward a state RPS. Green-e certification requires regulatory surplus and also includes additional checks against double claims.

3. Concerns and comment on the impact of purchasing off-site renewable energy and unbundled RECs with respect to reductions in fossil fuel generation

According to the SNOPR:

> *"DOE is also concerned about, and requests comment on, how the current state of information and markets would allow Federal agencies to reliably trace a Renewable Energy Certificate to an actual reduction in fossil fuel use" (SNOPR, III.D.2, pg. 61710).*

As stated previously, RECs function to provide access to and monetize demand for renewable energy separate and apart from other electricity generation sources and purchasing RECs has an aggregate impact on the supply of renewable energy in the same way that purchasing most any other clean product will have an aggregate, though perhaps not direct impact on the creation of more clean products, depending on supply and demand. The more RECs that are bought (the more renewable energy consumers choose), the more the market will respond to that demand by creating more renewable energy. In this way, federal agencies that purchase off-site renewable energy and/or unbundled RECs affect demand-side change on the grid.

As also stated previously, purchasers of RECs and renewable electricity may claim a reduction in terms of their own usage or consumption of fossil fuel-generated electricity regardless of supply and demand or the relationship between an individual purchase of renewable energy and the generation of new renewable electricity on the grid. The claims of using renewable energy do not depend on whether the renewable energy project is additional or pre-existing. The REC owner's claim is regarding the owner's own use and impact. But use of renewable energy does not necessarily cause system-wide reductions or reductions beyond what would have otherwise occurred. This is not unique to the unbundled REC purchasing option. Purchasing from an on-site facility or directly from a new facility also could not necessarily be traced to a system-wide or additional reduction in fossil fuel use. Unbundled RECs, therefore, should not be disallowed on this basis.

4. Concerns with tracking and accounting of RECs

The SNOPR includes the following statement.

> *"DOE is also concerned about RECs being not properly tracked and accounted for" (SNOPR, III.D.2, pg. 61710).*

Tracking and accurate accounting and allocation of renewable energy attributes, use, and delivery is achieved precisely through the use of RECs, i.e. would be impossible without trading attributes. The fact that RECs can be tracked and verified from generation to end-use on the grid, whereas electricity cannot, is their primary value and the reason for their creation and use.

RECs allow federal agencies and other purchasers of renewable energy to confidently use renewable energy to comply with performance standards, and they provide assurances to DOE and the public of the delivery and ownership of renewable energy. RECs are a well-established way to track renewable energy and can be easily verified and recorded. DOE must standardize verification of renewable energy by requiring that RECs must be retired for verification of all renewable energy used by federal agencies

for compliance with the performance standards. This retirement can occur in one of several REC tracking systems, which also issue, serialize, and track ownership of RECs[4], and can be verified to match federal agencies' purchases through Green-e certification. DOE can limit eligible renewable energy to facilities that are participating in tracking systems, or, where generation facilities are not participating in a tracking system, which is sometimes the case for smaller and distributed generation facilities, RECs can be created, transferred and retired contractually, in which case verification of unique ownership and complete retirement of RECs must be performed manually.

We recommend that DOE require Green-e certification for all renewable energy consumption and purchases to meet performance standards. Green-e certifies retail sales through utilities, competitive providers and REC marketers, as well as on-site and direct procurement of renewable energy.

Thank you for your consideration of our comments and please contact me with any questions, for more information, to discuss further, or if we can otherwise be of assistance.

Sincerely,

Todd Jones
Manager

[4] See http://etnna.org/learn.html#tracking.