

April 11, 2011

Senate Energy and Natural Resources Committee
304 Dirksen Senate Building
Washington, DC 20510

RE: Comments from the Renewable Energy Markets Association on the Committee's Clean Energy Standard White Paper Solicitation

Executive Summary

REMA represents the collective interests of both for-profit companies and nonprofit organizations that sell or promote the sale of renewable energy products, including renewable technology, renewable electricity, and renewable energy certificates (RECs), to individuals, companies and institutions throughout North America. REMA is the leading national organization focused on maintaining the integrity and continued growth of voluntary renewable energy markets.

Senators Bingaman and Murkowski must first be applauded for demonstrating their leadership toward transformative energy policy. This nascent policy vehicle presents an uncommon opportunity to harness American innovation across businesses and technologies. REMA recognizes that a Clean Energy Standard (CES) may undoubtedly require energy generation from low and emissions-free sources. Unbeknownst to many policy makers, the market for green power (renewable electricity and RECs sold independently of electricity) has already laid the groundwork for such a CES, totaling in excess of 30 million megawatt hours (MWh) in 2009, and growing at an average annual rate of 41% since 2005. Integration of a CES with the existing voluntary markets is vital to continued renewable energy deployment and financing options.

Expanding the installation and use of renewable energy through a CES will help create jobs and move the nation toward a stronger economy and cleaner environment. However, the pursuit of a CES should not come at the expense of the voluntary market for renewable energy. Compatible policies should be implemented to ensure cohesion across markets and government requirements (state Renewable Portfolio Standards included). It is within this understanding that REMA offers the following CES design recommendations, advancing both clean energy generation and allowing consumers to make a meaningful impact through voluntary purchases of renewable energy.

REMA CES Recommendations:

- Above all, the ownership of RECs (or equivalent credit tracking tool) must be made clear.
- Maximum CES credit should be awarded to new energy technologies that neither emit carbon emissions nor utilize fossil fuels as an energy resource.
- State and federal compliance mechanisms should incorporate a linked or cooperative tracking system that permits the appliance of RECs (or equivalent) toward one use (compliance or voluntary) only.
- Provisions should be incorporated to protect the growth and sale of voluntary renewable energy outside a compliance system and promote the cleanest energy sources.
- Project developers can best support the growth of clean energy through the sustained presence of well-crafted government loan and tax incentive programs.

A well-crafted CES should avoid the unintended consequences of limiting the American consumer's ability to freely choose his or her source of electricity and investment of their own financial resources. Incorporating the aforementioned recommendations would bridge a CES and the existing voluntary markets, thereby promoting emissions reductions and economic growth across states, communities, and industries while preserving consumer choice and impact.

Question 1: What should be the threshold for inclusion in the new program?

Clarifying Question: *How should a federal mandate interact with the 30 existing state electricity standards?*

The integrity of renewable energy purchases relies on the accurate tracking and ownership of the environmental attributes associated with one Mega-Watt hour (MWh) of emissions free electrical generation. This tool is a Renewable Energy Certificate (REC), and it is used nationwide by states, utilities, and green power marketers to track renewable generation, at least until ‘green electrons’ are invented. Each REC has a unique serial code, and once the REC is retired after it is used for state RPS compliance or sold as a voluntary renewable energy product. In instances where a single REC is sold to and claimed by multiple parties, the REC has been double counted and is worthless. Most state RPS programs already prohibit the use of voluntarily purchased RECs toward state compliance targets in an effort to prevent double counting.¹

The CES under discussion must—in order to be effective—develop a similar tracking system that distinguishes between “clean energy” electrons and “non-clean” electrons. Previous legislative proposals have called for creating a new instrument called a Federal REC. While REMA supports some form of federal tracking instrument, the ownership of and rights to the Federal RECs should be clear to prevent double counting. When a clean energy generator has sold electricity and/or clean energy credits, certificates or attributes associated with such generation under a contract that were entered into before the date of enactment of the federal RES, ownership of the Federal RECs associated with such generation should remain with the party that purchased the original renewable energy credits. Clean energy operators should not be penalized for producing emissions-free power prior to legislation, nor should they be penalized for failing to anticipate new policy at the federal level.

A federal tracking instrument can be crafted to integrate smoothly with existing state electricity standards and goals. REMA recommends that one federal credit be retired for every one REC used to satisfy a state RES or to supply a voluntary renewable energy product. Removing a federal REC from federal compliance obligations upon retirement of REC will prevent simultaneous claims of “clean energy” attributes (double counting).

Question 2: What resources should qualify as “clean energy”?

Clarifying Question: *Should qualifying clean energy resources be expressly listed or based on a general emissions threshold?*

First, REMA recognizes that the inclusion of clean energy technologies that are not renewably generated, e.g. are dependent on fossil fuels sources, may be a reality of the current political landscape, and should not constitute a fatal flaw to this policy enterprise. With the understanding that a CES may provide partial or full credit to generators using fossil fuels, REMA recommends that qualifying “clean energy” should rely on an end emissions and fuel input profile, and not on the description of the technology itself.

REMA supports the deployment of renewable technologies produced from sources that replenish themselves naturally, never run out, and are cleaner for the environment than non-renewable fuels. These resources include but are not limited to:

- a) Wind;
- b) Sunlight (solar energy);

¹ L. Bird, et al, *Interaction of Compliance and Voluntary Renewable Energy Markets*, Golden, CO: National Renewable Energy Laboratory, 2005, pg. 11, <http://apps3.eere.energy.gov/greenpower/pdfs/42096.pdf>

- c) Biomass (landfill, clean wood and agricultural waste);
- d) Geothermal (heat stored in the earth);
- e) Water (some low-impact and run-of-river hydroelectric facilities).

Some clean energy technologies may be capable of producing electricity with lower emissions than traditional fossil fuel sources, yet they still produce infinitely more greenhouse gas emissions than the above-mentioned renewable resources. Only renewable energy technologies link wind, solar, geothermal, and low-impact hydro can produce genuinely clean energy, not simply settling for *cleaner*. With these considerations in mind, REMA recommends that the maximum CES credit should be awarded to new energy technologies that neither emit carbon emissions nor utilize fossil fuels as an energy resource, possibly following a tiered incentive structure as outlined in REMA's response to Question 4.

Question 3: How should the crediting systems and timetables be designed?

Clarifying Question: *Should the same credit be available to meet both the federal mandate and an existing state standard or should a credit only be utilized once?*

REMA recommends that the CES crediting system be designed first with the priority of preventing double counting and ensuring that voluntary purchases of renewable energy are meaningful. The CES under discussion must—in order to be effective—develop a similar tracking system that distinguishes between “clean energy” electrons and “non-clean” electrons. This is not only a matter of correct accounting; it is to ensure consumer protection and prevent litigation, as green energy (or in this context, “clean energy”) claims can only be made by one party. To meet these concerns, previous legislative proposals have called for creating a new instrument called a Federal REC.

While REMA supports some form of federal tracking instrument, the ownership of and rights to the Federal RECs should be clear to prevent double counting. When a clean energy generator has sold electricity and/or clean energy credits, certificates or attributes associated with such generation under a contract that was entered into before the date of enactment of the federal RES, ownership of the Federal RECs associated with such generation should remain with the party that purchased the original renewable energy credits. Clean energy operators should not be penalized for producing emissions-free power prior to legislation, nor should they be penalized for failing to anticipate new federal policy.

For interaction between existing state and federal crediting systems, REMA recommends that a credit tracking system link state, federal, and voluntary systems to avoid the double counting of “clean” energy generated. As noted in an earlier REMA response, a federal tracking instrument can be crafted to integrate smoothly with existing state electricity standards and goals. REMA recommends that one federal credit be retired for every one REC used to satisfy a state RES or to supply a voluntary renewable energy product. Removing a federal credit from national compliance obligations upon retirement of a state or voluntary REC will prevent simultaneous claims of “clean energy” attributes (double counting).

Question 4: How will a CES affect the deployment of specific technologies?

Clarifying Question: *Could different crediting and requirements than those proposed by the President be more effective in deploying clean technologies?*

Whatever CES is enacted should be structured as to not interfere with the renewable energy market's ability to deliver much-needed financing to new renewable projects. The sale of RECs helps to reduce project risk and provide an additional revenue stream for the deployment of renewable energy generation. RECs provide wind farms, solar generating stations and other renewable electricity project owners with revenues outside of those they secure selling the electricity generated by their project. By financing renewable energy that's been delivered directly into the power grid, RECs help reduce the output needed from existing fossil fuel burning power plants. Incorporating provisions that account for the growth and sale from the voluntary renewable market will assist the CES in meeting its threshold.

Through 2009 (the last year for which data is available), voluntary renewable energy purchases exceeded renewable energy produced for compliance markets, such as state RPS mandates.² A CES mechanism should harness this private market to bolster the mandate, thereby allowing citizens and businesses the opportunity to go above and beyond proposed standards of 80% clean energy by 2035; consumers may turn the CES ceiling into a floor.

Role of the Voluntary Market in CES Compliance

Voluntary markets for renewable energy complement the growth of clean energy mandates. The National Renewable Energy Laboratory (NREL) has concluded that "the availability of the two markets [compliance and voluntary] for project output can also help alleviate some supply and demand balance issues."³ For example, renewable energy generation is often built en masse, taking advantage of economies of scale. The presence of voluntary markets provides value to a REC supply that may surpass RPS capacity, making future compliance easier and bolstering project developer confidence and investment. Voluntary markets also demonstrate support for clean energy legislation or an increase in existing mandates: consumers often vote with their dollars first and ballot second. The key to permitting meaningful private consumer purchases within a CES is incorporating explicit voluntary market protections, an allocation system, or both.

Incorporating Voluntary Market Provisions in a CES

Numerous state and regional (and pending federal) energy programs have incorporated the voluntary renewable energy market to encourage energy outside a compliance system, whether through a set-aside or off the top allocation, to permit consumer purchases to further incentivize clean energy deployment. As noted, voluntary purchases turn energy mandates into floors, promoting clean energy deployment above and beyond incremental requirements. For example, California's Air Resources Board (ARB) has begun to incorporate voluntary renewable energy purchases within their carbon emissions regulation AB 32; here, a set amount of overall annual allowances are set-aside exclusively for voluntary purchases.⁴

Yet another method for ensuring that clean energy technologies are deployed is the inclusion of "Do-No-Harm" provisions within a CES. Recent legislation from the 112th Congress, S. 559, highlights how CES policies may be structured to prevent undue harm to the voluntary market for renewable energy. Simple and straightforward text used in this and past proposed legislation expresses national support for voluntary renewable energy markets and that "nothing in ... [in the legislation] is intended to interfere with or prevent the continued operation and growth of the voluntary renewable energy market."⁵ A vibrant voluntary market can complement the growth of a

² L. Bird, J. Sumner, *Green Power Marketing in the United States: A Status Report (2009 Data)*, Golden, CO: National Renewable Energy Laboratory, pg. v, Sep. 2010, 2 Nov. 2010, http://www.renewablemarketers.org/pdf/resources/NREL_2009_VRE.pdf

³ L. Bird, et al, *Interaction of Compliance and Voluntary Renewable Energy Markets*, Golden, CO: National Renewable Energy Laboratory, 2005, pg. 11, <http://apps3.eere.energy.gov/greenpower/pdfs/42096.pdf>

⁴ California Air Resources Board, *Staff's Suggested Modifications to the Original Proposal: Attachment B*, 16 Dec. 2010, pg. 8, <http://www.arb.ca.gov/regact/2010/capandtrade10/res1042attB.pdf>

⁵ U.S. Congress, Senate, 112th, S. 559, March 10, 2011, <http://thomas.gov/cgi-bin/query/F?c112:1:./temp/~c1129H7YXk:e137379:>

federally regulated market—like a CES—but only if the voluntary market is allowed to continue its mission of customer choice and customer-driven impact.

Tiered CES Credits for Generation Technologies

In addition to recognizing the continuing role of the voluntary markets, REMA is interested in creating a tiered credit structure that provides appropriately weighted incentives for the deployment of the cleanest energy generation possible. While already explained in REMA's response to Question 2, certain clean energy technologies employ fossil fuels to generate electricity, producing GHG emissions or radioactive waste and weakening the overall CES goal. To help fulfill the promise of a clean energy economy, renewable energy technologies like wind and solar should be afforded CES credit multipliers. This will ensure that zero emissions-based energy sources are fully considered for their contributions to a robust clean energy mandate compared to the known emissions and risks associated with non-renewable sources. A CES that awards equal--or near equal--credits to fossil bases-sources as it does to wind power misses the opportunity to invest in the emissions-free energy and prolongs dependence on a finite fossil resource.

Question 6: How would the CES interact with other policies?

Clarifying Question: *Are there specific supporting policy options that should be considered for coal, nuclear, natural gas, renewable energy, and efficiency?*

Outside of CES provisions that account for the role and growth of the voluntary renewable energy markets, supporting loan and incentive programs should be sustained to encourage additional renewable energy deployment. Although RECs provide a valuable revenue stream for renewable energy project developers, more can be done to provide project developers the regulatory and policy certainty needed to break down on expansive solar or wind projects. For example, the 1603 Treasury Cash Grant Program has provided much needed flexible financing to project developers a time when the market for tax equity financing collapsed. A recent analysis from the Bipartisan Policy Center found that the revised program has delivered twice the impact compared to traditional renewable energy tax credits.⁶ Yet, despite the program's success, funding has not been slated to continue past 2011, which will surely dampen any other related government goal of expanding renewable or clean energy generation.

Further instability is generated through the uncertain funding levels of the Department of Energy's 1703 and 1705 Loan Guarantee program. Competing House, Senate, and Obama Administration statements have clouded the program's future, as once such budget proposal threatens to revoke over \$15.5 billion in loans for 31 pending projects.⁷ Again, renewable and clean energy technologies cannot be realistically expected to meet a CES 80% goal without supportive tax and loan policies.

Finally, as previously noted in REMA's response to Question 4, policies that impact the voluntary renewable energy markets should be tailored to avoid unnecessary interference a robust private market. In proposed legislation, this has appeared as a "Do-No-Harm" provision. S. 559 from the 112th Congress highlights how CES policies may be structured to prevent undue harm to the voluntary market for renewable energy. Simple and straightforward text used in this and past proposed legislation expresses national support for voluntary renewable energy markets and

⁶ Bipartisan Policy Center, *Reassessing Renewable Energy Subsidies: Issue Brief*, 25 Mar., 2011, <http://www.bipartisanpolicy.org/library/staff-paper/reassessing-renewable-energy-subsidies-issue-brief>

⁷ Office of Senator Feinstein, *Dear Colleague*, 15 Feb., 2011, <http://thehill.com/images/stories/blogs/energy/feinsteindoe.pdf>

that “nothing in ... [in the legislation] is intended to interfere with or prevent the continued operation and growth of the voluntary renewable energy market.”⁸

⁸ U.S. Congress, Senate, 112th, S. 559, March 10, 2011, <http://thomas.gov/cgi-bin/query/F?c112:1:./temp/~c1129H7YXk:e137379:>