CRS center for resource solutions

August 4, 2011

California Air Resources Board
1001 I Street
Sacramento, CA 95812

* Submitted electronically at
http://www.arb.ca.gov/lispub/comm/bcsubform.php?listname=capandtrade10&comm_period=1*

Re: Comments on Proposed 15-Day Modifications

Dear Chairman Nichols and Members of the Board:

The Center for Resource Solutions (CRS) appreciates the opportunity to comment on the proposed 15-day modifications to the California Cap on Greenhouse Gas (GHG) Emissions and Market-Based Compliance Mechanisms proposed regulations. CRS commends the California Air Resources Board (CARB) on the design of this cap and trade program that will help California transition to a clean energy future, and serves as a welcome supplement to the comprehensive set of regulations under AB32.

Accounting for Null Power Imports

While CRS applauds CARB for a well-designed cap and trade program, one section contains highly problematic language that enables the double counting of renewable energy attributes and would destabilize the well-functioning renewable energy markets that have been in place in the U.S. for more than a decade. Section 95852(b) pertains to the compliance obligations of first deliverers of electricity, with subsections 95852(b)(3) and 95852(b)(4) detailing the necessary documentation that first deliverers must show in order to claim the emissions of a renewable resource—which then allows them to have no compliance obligation for their import. While these sections require showing contract, ownership, or delivery of the underlying electricity from a renewable resource, there is currently no requirement for ownership of the renewable energy certificate (REC) alongside that electricity.

As currently written, it is possible for renewable energy facilities outside of California to sell their RECs to meet another state's renewable portfolio standard (RPS), or into the voluntary renewable energy market, and for the underlying electricity to be delivered into California and treated as emissions-free. This results in double counting, as both the entity purchasing the REC and the first deliverer in California are benefiting from the claim of zero-emissions energy from the same MWh of renewable generation.

Allowing the underlying electricity from renewable resources to carry the zero-emission attribute conflicts with the statutory and regulatory language of surrounding states. For example, the California Public Utilities Commission (CPUC) defines RECs as embodying all environmental

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attributes.[1] We strongly recommend that CARB not codify language that directly conflicts with CPUC definitions, and the contractual expectations of REC owners. The implications of including such conflicting language are enormous. Enabling the underlying electricity to carry the zero-emissions benefit would threaten renewable energy markets wherein RECs are defined as containing all environmental attributes of renewable energy generation. Furthermore, if this language is adopted, it is possible that entities that have already purchased the zero emissions attributes in the form of RECs will challenge CARB's actions. Further litigation would be likely in order to determine who has title to the zero-emissions attributes.

As administrator of the Green-e Energy certification program for renewable energy, CRS is extremely concerned, as implementation of this section would make RECs from facilities selling the underlying electricity into California ineligible for Green-e Energy. This would introduce risk into the voluntary market and greatly hinder its growth. This policy would also potentially cause other states to re-evaluate their own successful renewable energy programs and standards.

CRS strongly recommends requiring that first deliverers show ownership of the REC in order to claim emissions without a compliance obligation from a renewable resource, or the specific emissions factor of a renewable resource. Both Sections 95852(b)(3) and 95852(b)(4) should include language stating that "ownership of a REC" be added alongside the other criteria for first deliverers to claim zero emissions.

Should CARB be resistant to including this language, a second best solution is to insert the following as a new Section 95852(b)(5):*"To report imported electricity from a specified source of renewable energy, the electricity importer must own all property rights to the emissions, or lack of emissions, associated with the imported electricity."* The addition of this clause will help ensure that multiple claims are not made for the same renewable energy generation, prevent double counting, and aid in the continued growth of both voluntary and compliance renewable energy markets in the U.S., as well as guarantee that Californians are actually receiving the zero emissions energy they expect under the cap-and-trade program rules.

95841.1 Voluntary Renewable Electricity

CRS is very pleased to see the inclusion of a set aside for the voluntary renewable energy market, and commends CARB for allowing voluntary purchasers of renewable energy to continue to reduce GHG emissions. This provision will further stimulate renewable energy growth in California, thus promoting job creation and reducing GHG emissions beyond the level set by the cap. While CRS appreciates the hard work of CARB staff in designing this set aside, altering a few details would enable the program to run more smoothly, present less risk to market participants, and promote more growth of renewable energy capacity within California.

[1] California Public Utilities Commission D08-08-028; "A REC includes all renewable and environmental attributes associated with the production of electricity from the eligible renewable energy resource, including any avoided emissions of pollutants to the air, soil or water; any avoided emissions of carbon dioxide" and other greenhouse gases. Washington State RCW 19.285.030 states a REC "includes all of the nonpower attributes ... including but not limited to ... avoided emissions of carbon dioxide and other greenhouse gas emissions." Oregon PUC in OAR 330-160-0015 similarly endows RECs with all "environmental, economic, and social benefits associated with the generation of electricity from renewable energy resources..."

Online Date

Section 95841.1(a) requires that voluntary renewable electricity be generated from facilities that came online after July 1, 2005. This date is not consistent with the established new date for the voluntary renewable energy market. The use of this arbitrary cutoff date would exclude a large portion of the renewable energy capacity currently serving the voluntary market in California, resulting in a reduction in environmental benefits currently supported by voluntary customers, removing an important source of revenue for these generators, and negatively impacting the clean energy industry in California.

The voluntary renewable energy market is a national market with an established 15-year rolling online date.[2] By disallowing California facilities with online dates prior to 2005 to qualify for the voluntary renewable energy set aside, many generators based in California would be excluded from participating in this national market. Section 95841.1 already prescribes eligibility criteria for generation that can qualify for allowance retirement as requiring the generators be certified as RPS eligible by the California Energy Commission (CEC).

Should CARB keep the 2005 new date instead of relying on the RPS definition in determining generator eligibility, approximately half of the voluntary renewable energy capacity in California would no longer be able to participate in this national market.[3] This figure includes all biomass, geothermal and landfill gas facilities, and half of the wind capacity in California that currently participates in the national voluntary market. These are generators that anticipated REC revenue from the voluntary market in order to be built, and by using a 2005 new date they would no longer receive this revenue.

CRS suggests not setting an arbitrary new date that puts California capacity at a competitive disadvantage compared to the rest of the U.S. If CARB moves forward with the 2005 date, REC providers both in California and nationally would turn to out-of-state RECs for their green power products, and the role of California generators in this market would be diminished. This would particularly impact California utilities that offer their customers green electricity, as they tend to own their own generation capacity or buy renewable energy generated within the state.

Reporting of Contract or Settlement Data

Section 95841.1(b)(1)(D) requires requests for allowance retirement to be accompanied by "contract or settlement data for sale of the electricity or RECs associated with the generation of the electricity to the end-user or entity purchasing on behalf of the end-user." CRS requests feedback on what level of data is needed for reporting purposes, and whether the data submitted by market participants will have to be vetted by a third party.

Many renewable energy marketers have a large number of customers and hence a great deal of contracts. Requiring the reporting of data on each individual contract would be time-consuming and cumbersome to both the party seeking allowance retirement and to CARB staff. Furthermore, many utilities offer green pricing programs where an official contract is not

[2] Both the U.S. EPA Green Power Partnership and Green-e Energy originally used an online date of 1997, which was recently changed to a 15-year rolling date.

[3] This figure refers to renewable energy capacity based in California and participating in the Green-e Energy program.

available, as the voluntary purchase of renewable electricity or RECs is simply a line item on a utility bill.

In lieu of reporting all individual contracts, market participants seeking allowance retirement should be able to submit aggregated sales records containing the total quantity of renewable electricity or RECs sold into the voluntary market, so long as the data is supported by an independent audit. The auditor should sample all individual contracts and sales records to confirm that the information reported is accurate.

Furthermore, should CARB require the reporting of individual records, CRS recommends that names of customers not be disclosed on any publicly available documents. This not only ensures privacy for the renewable electricity and REC purchasers, but also eases the concerns of competitive suppliers of losing their purchasers to other market sellers.

Attestations made by Voluntary Renewable Energy Market Participants

Section 95841.1(b)(1)(E)(1) requires voluntary renewable energy market participants to attest that they "have not authorized use of, or sold, any renewable electricity credits or any claims for electricity… in any other voluntary or mandatory program" for which they are seeking allowance retirement. Such an attestation is unsuitable for the voluntary renewable energy market, as claims to zero-emissions electricity are precisely what REC and renewable electricity providers are selling to their customers. Ownership of a REC or renewable electricity entitles the purchaser to make statements surrounding their emissions-free electricity use. It is also both commonplace and encouraged for these purchasers to participate in other programs, including the U.S. EPA's Green Power Partnership, Green-e Marketplace, the U.S. Green Building Council's LEED certification program, and within greenhouse gas registries where REC purchases by the end user can be recorded as zero emissions electricity use.

As currently written, the attestation in this section suggests that the voluntary renewable energy participant is the entity making the claim, whereas most of the time this is not the case. Rather, the voluntary renewable energy market participant is selling the claim to the end-user, or renewable energy purchaser, and seeking allowance retirement on their behalf. CRS understands the intent of this language is to prevent the double counting of renewable energy, and not retire allowances on behalf of renewable energy that is being double-sold. However, as currently written, market participants would have difficulty signing such an attestation.

CRS recommends changing the attestation to clarify that the renewable energy or REC end user is allowed to make a claim and participate in voluntary programs that recognize renewable energy purchasing. One suggestion is to insert "to any party other than the renewable energy purchaser" after "claims of electricity" in the section in question. With this modification, the attestation would read "I certify under penalty of perjury of the laws of the State of California that I have not authorized use of, or sold, any claims for electricity to any party other than the renewable energy purchaser for which I am seeking ARB allowance retirement, in any other voluntary or mandatory program."

REC Retirement and Renewable Energy Tracking Systems

Sections 95481.1(b)(2)(D) and 95481.1(b)(3)(E) require "REC retirement reports" to be submitted by voluntary renewable energy participants seeking allowance retirement. The term REC retirement report is not defined within the regulations and CRS seeks more detail on what such a report encompasses.

The most secure way to ensure that RECs are properly retired is through renewable energy tracking systems, such as the Western Renewable Energy Generation Information System (WREGIS). Renewable energy tracking systems are electronic databases that create and track certificates representing the non-energy attributes of the metered renewable energy generation of enrolled facilities. These tracking systems operate similarly to bank accounts in that RECs, each with their own unique serial number, can be transferred between account holders, and ultimately retired on behalf of end users. Once a REC is retired in a tracking system, it cannot return into circulation. By requiring the use of electronic tracking systems by market participants seeking allowance retirement, it ensures that the correct number of allowances will be retired on behalf of each renewable energy sale.

While electronic tracking systems are the preferred means for showing REC retirement, they can be cost-prohibitive to generators below a certain size. CRS recommends that for generators below 10 MW an attestation be allowed in lieu of a retirement report from a tracking system. This attestation should state that the market participant has ownership of the renewable energy generation, and that they have not sold the renewable energy attributes separately to other customers or used it to make other renewable energy claims.[4]

Section 95841.1(d) introduces a potential voluntary renewable electricity tracking system as a way to show that the requirements of 95841.1(b) are met. WREGIS, an existing renewable energy tracking system, could be used as opposed to creating a separate tracking system specifically for the voluntary market. WREGIS is currently used by the California Energy Commission, as well as other state programs, to verify REC ownership for RPS compliance. WREGIS can incorporate a function in which the certificates can be retired into accounts specifically for the voluntary renewable energy set aside. This would cost considerably less than developing an entirely new tracking system, and provide the same functionality needed for the set aside.

Although the use of a tracking system will help meet a majority of the requirements of 95841.1(b) more efficiently and effectively, the tracking system should not be used in lieu of all requirements. The reporting requirements in Section 95841.1(b)(1)(D), regarding the contract or settlement data for the sale of the electricity or RECs, should still be required as this information cannot be reported in a tracking system.

Emission Factors

Section 95841.1(c) requires use of the default emission factor for unspecified power when calculating the amount of allowances to be retired for the voluntary set aside. A more widely

[4] For sample language, please see the Green-e Energy Small Generator Attestation and the Green-e Energy Attestation From Program Participant, Appendix H to the Green-e Energy Annual Verification Instructions, both found at: http://www.green-e.org/verif_docs.html

accepted rate for determining the equivalent emissions avoided from renewable energy generation is use of the non-baseload output emission rate, employed by both the U.S. EPA Green Power Partnership and by Green-e Energy.[5,6] The Regional Greenhouse Gas Initiative (RGGI) also recommends using the marginal rate of electricity generation when available to calculate the amount of allowances to retire on behalf of the voluntary renewable energy market.[7]

The default emission factor recommend by CARB is closer to a system average, which does not take into account the true effects of renewable energy generation on the grid, which generally is to back down plants operating on the margin. Since it is more accurate, the number of allowances to be retired on behalf of voluntary renewable energy would ideally be calculated using the non-baseload output emission rate. Likewise, imports of underlying electricity of renewable energy generation that has been stripped of its RECs would be assigned the emissions equivalent to the non-baseload output emission rate, in order to avoid double counting. CRS realizes that it is more likely that if imports of renewable energy generation absent RECs were to be assigned emissions as unspecified power, they would be assigned the default emissions rate. Thus, for consistency, CRS finds it sufficient that the default emission rate is also used for calculating the number of allowances to retire for the voluntary set aside.

Truing Up

While Section 95841.1 addresses many of the details necessary to effectively operate a set aside for the voluntary renewable energy market, the one key item missing is how to account for oversubscription. CARB should outline what will happen if the number of allowances requested for retirement exceeds the size of the set aside specified in Section 95870(c). The preferable solution would be to follow the RGGI Model Rule, and "true up" allowances at the end of each compliance period. In this scenario, a predetermined amount of allowances are taken out of circulation at the beginning of the compliance period. At the end of the period, if the number of allowances requested for the voluntary market exceeds the set aside amount, then the appropriate number of allowances are taken out of circulation in the subsequent compliance period. Having a truing up mechanism reduces the risk that there won't be enough allowances for all voluntary sales in a given year, thus providing more market certainty and aiding in the growth of renewable energy capacity in California.

If it is not possible to exceed the amount prescribed in Section 95870(c), the second best solution is to roll over any excess allowances from the set aside at the end of each year such that they can be used in the event the set aside is oversubscribed in future years. Regardless of the approach taken, CARB should specify both what happens if the set aside is oversubscribed, and what happens with potential excess allowances, so that there is certainty to all market participants.

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[5] U.S. EPA Green Power Partnership, Green Power Equivalency Calculator Methodologies http://www.epa.gov/greenpower/pubs/calcmeth.htm

[6] Green-e Energy Appendix B: Code of Conduct and Customer Disclosure Requirements, http://green-e.org/getcert_re_stan.shtml

[7] Regional Greenhouse Gas Initiative Model Rule, http://www.rggi.org/docs/Model%20Rule%20Revised%2012.31.08.pdf, p. 42

Thank you very much for accepting these comments. We are very pleased with the proposed regulations, and are impressed by CARB staff's hard work, dedication, and responsiveness in working through these issues.

Sincerely,

Jennifer Martin
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