



**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Implement the Commission's Procurement Incentive Framework and to Examine the Integration of Greenhouse Gas Emissions Standards into Procurement Policies.

*[Also filed at the California Energy Commission]*

Rulemaking 06-04-009  
(Filed April 13, 2006)

CEC Docket 07-OIIP-01

**COMMENTS OF THE RENEWABLE ENERGY MARKETERS ASSOCIATION  
ON GREENHOUSE GAS ALLOWANCE ALLOCATIONS**

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**COMMENTS OF THE RENEWABLE ENERGY MARKETERS ASSOCIATION  
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Pursuant to the Administrative Law Judge's Ruling Modifying Schedule and Correcting Suggested Outline for Comments and Reply Comments, the Renewable Energy Marketers Association (REMA) is pleased to submit the following comments to the California Public Utilities Commission on the question of distribution of allowances.

Pursuant to Rule 1.4(b) of the Commission's Rules of Practice and Procedure, REMA requests to be made a party in the above captioned proceeding. REMA represents the collective interests of both for-profit and nonprofit organizations that sell or promote renewable energy products through voluntary markets, including renewable electricity and renewable energy certificates (RECs), to individuals, companies and institutions throughout North America.<sup>1</sup>

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<sup>1</sup> Members are 3Degrees, Bonneville Environmental Foundation, Community Energy, Conservation Services Group, Constellation NewEnergy, FPL Energy, Renewable Choice Energy, SmartPower, Sterling Planet, SunEdison and SunPower. *The views expressed by REMA in this regulatory filing do not necessarily represent the views of each individual member company.*

The Commission's consideration of greenhouse gas allowance allocation methods will have a direct impact on the sale of renewable energy products through voluntary markets. Accordingly, REMA's members are directly impacted by the Commission's consideration of greenhouse gas allowance allocation methods and other matters. REMA's comments address issues raised in the proceeding regarding greenhouse gas emissions allowances and the method of their allocation.

The market for green power (renewable electricity and RECs sold independently of electricity) is strong and growing. In 2005, U.S. consumers made voluntary purchases of renewable energy totaling about 8.5 million MWh, and 2006 purchases are estimated to total about 12 million MWh. The voluntary market grew by 62% in 2004, 37% in 2005, and 40% in 2006. Currently, the voluntary market represents nearly one-fifth of the overall renewable energy demand from both compliance and voluntary markets on a MWh-basis. If the voluntary market continues to grow at a rate of 35% annually, it will reach about 40 million MWh by 2010 and represent about one-quarter of the total U.S. demand from voluntary and compliance markets.<sup>2</sup>

The Center for Resource Solutions recently announced un-audited results indicating the sale of over 15 million MWh of Green-e certified renewable energy products in 2007, an increase of more than 50% over 2006.<sup>3</sup> Since sales of Green-e certified products account for over three-quarters of the total sales in voluntary renewable energy markets, total sales in 2007 are likely to be about 20 million MWh from new

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<sup>2</sup> Bird, Lori, and Elizabeth Lokey. *Interaction of Compliance and Voluntary Renewable Energy Markets*, Golden, CO: National Renewable Energy Lab, October 2007.

<sup>3</sup> Center for Resource Solutions, *NewSolutions*, Spring 2008. [http://www.green-e.org/news/CRS\\_NewsSpring2008.html](http://www.green-e.org/news/CRS_NewsSpring2008.html).

renewable resources.<sup>4</sup> This is approximately equal to the total MWh from new renewable resources that were delivered by state RPS compliance markets in 2007.<sup>5</sup> In short, voluntary purchases are driving as much new renewable energy as that mandated by compliance markets today. These data demonstrate that the voluntary market for renewable energy is much more significant than most people believe.

Depending on how it is implemented, a greenhouse gas cap can have a significant impact on voluntary renewable energy sales. Specifically, the treatment of renewable energy under a cap-and-trade program could undermine the voluntary green power market. A primary motivation for voluntary renewable energy purchases is to reduce the buyer's greenhouse gas (GHG) footprint. This benefit—the ability of individuals, companies, government entities and non-profits to reduce electric sector GHG emissions—would be eliminated if voluntary market purchases of renewable electricity and RECs are not somehow linked to the retirement of allowances or the reduction of the cap.

Therefore, with respect to the design of carbon cap-and-trade programs, REMA's primary objective is to ensure that any cap-and-trade program supports the ability of voluntary renewable energy demand to reduce GHG emissions. To accomplish this objective, voluntary demand for renewable energy must result in either retirement of allowances or in lowering of the cap.

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<sup>4</sup> Center for Resource Solutions, 2006 Green-e Energy Verification Report; and Green-e Energy Program; and Bird, Lori, Leila Dagher and Blair Swezey, *Green Power Marketing in the United States: A Status Report (Tenth Edition)*. NREL/TP-670-42502, Golden, CO: National Renewable Energy Laboratory, December 2007.

<sup>5</sup> Jeff Deyette, Union of Concerned Scientists, May 29, 2008. Compared to RPS demand for both new and existing renewable resources, the voluntary market accounted for more than 25% of 2007 RPS demand.

### *The Voluntary Renewable Energy Marketplace in California Today*

Presently, there are nine utility green pricing programs within the state of California.<sup>6</sup> Of these programs, four rank in the Top 10 for one or more categories nationwide according to the National Renewable Energy Laboratory. Not everyone wants or has access to a utility-sponsored renewable energy option; some customers choose to purchase renewable power outside the utility offerings. For this reason, there is a large voluntary market for RECs unbundled from electricity and for on-site customer owned renewable power driven by public commitment to renewable power development and a commitment to GHG reduction. In this regard, many businesses and an unknown number of residential consumers buy RECs separate from electricity, or invest in on-site renewable power. California has more corporate customers of voluntary renewable energy enrolled in the U.S. EPA Green Power Partnership than any other state with the exception of Texas. Of the nearly 950 organizations that participate in the EPA's Green Power Partnership, the California-based Partners on that list represent 111 organizations or 11.7%.

It has been suggested that if California raises its RPS to 33%, voluntary demand will fall because consumers will see that the mandates are doing the job for them. This view fails to recognize the multiple factors that motivate purchasers of green power. For example, most purchasers buy renewable electricity or RECs because they want to drive demand even harder than the floor set by the state mandates, and they wish to take personal responsibility for their energy use. In short, they want to make a difference. In

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<sup>6</sup> These are Anaheim Public Utilities, Burbank Water and Power, Los Angeles Department of Water and Power, PacifiCorp (Pacific Power), Palo Alto Utilities, Pasadena Water & Power, Roseville Electric, Sacramento Municipal Utility District, and Silicon Valley Power.

addition, the corporate buyers that are driving the tremendous growth in the voluntary market are trying to meet individual corporate goals.<sup>7</sup> Most of them are not covered by a greenhouse gas cap, and buying RECs or investing in on-site solar is a recognized way to reduce their carbon footprint. These rationales will continue even if the RPS minimum is increased.

A recent study by the National Renewable Energy Laboratory (NREL) found little evidence that the adoption of an RPS will negatively affect voluntary market sales. After examining four states with a long history of green power sales and with the introduction of an RPS, the authors concluded, “There is no apparent decline in sales once the RPS is adopted, at least to date. In fact, sales continue to grow over time. Furthermore, we found that customer participation rates in utility green power programs were higher on average in states with an RPS than in those without. This finding was statistically significant based on an analysis of 2006 customer participation data provided by utilities.”<sup>8</sup>

Concerns have also been expressed that if California raises its RPS to 33%, there will not be enough renewable energy to satisfy both the RPS and voluntary demand. This is a static view that does not take into account the longer term dynamics of supply and demand. Another study undertaken by NREL found that the combined demand of 25 states with an RPS and national voluntary market demand for green power creates a near-term deficit in supply, but that the “results do not necessarily portend a long-term

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<sup>7</sup> Nearly three-quarters of total green power purchases (by volume) in 2006 was attributable to nonresidential demand.

<sup>8</sup> Bird, Lori and Elizabeth Lokey, *Interaction of Compliance and Voluntary Renewable Energy Markets*. NREL/TP-670-42096, October 2007.

shortage as it is likely that, with continuing Federal and state support, the renewable energy industry can greatly ramp up deployment and production over the medium and long term.”<sup>9</sup> Such an increase in renewable energy supply is the goal of both RPS standards and the voluntary market.

In California, a shortfall of supply relative to demand would lead to higher prices, which may dampen voluntary demand temporarily, but the RPS would not jump to 33% overnight. Similar to the NREL conclusion, supply can be expected to respond to higher prices. If state policy is to increase renewable resources, it does not make sense to jettison the voluntary market—that would be a zero-sum game.

Our own concerns are in the opposite direction: That carbon regulations that *prevent* green power purchases from affecting GHG emissions levels may be adopted, and thus undermine environmental objectives of customers who voluntarily purchase renewable energy. A robust market for renewable electricity, RECs and distributed renewable energy generation already operates in California. Without an allowance allocation for renewable energy provision under AB32, California’s voluntary renewable energy market may cease to exist because the leading market driver – the ability to make a difference in reducing GHG emissions through consumer choice tied to market forces – will have been eliminated.

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<sup>9</sup> Swezey, Blair, Jorn Aabakken, and Lori Bird, *A Preliminary Examination of the Supply and Demand Balance for Renewable Electricity*. NREL/TP-670-42096, October 2007.

## I. DISCUSSION

If, because of the design of the cap-and-trade regime, no direct reduction in GHG allowances can be attributed to new clean renewable generation sold to voluntary buyers, it is not only retailers of RECs, but also developers and owners of renewable energy facilities, whose effect on emission reductions would be ignored. Eliminating the role of voluntary renewable markets in reducing emissions is an unnecessary casualty of a poorly designed cap and trade system and represents a missed opportunity for non-covered entities (renewable energy generators) to cost-effectively lower the overall level of emissions through voluntary action.

A well-designed cap and trade regime can insure a “best of both worlds” outcome where voluntary markets are additive to compliance targets. This is desirable because not all actors in the economy will be covered by the cap and because it respects the voluntary choice of corporations and individuals to reduce GHG emissions under the cap.

To determine whether and to what extent the Commission is taking into account the benefits of voluntary demand for renewable energy to a carbon cap and trade program, REMA reviewed the following documents:

- Interim Opinion on Greenhouse Gas Regulatory Strategies (Feb. 8, 2008) which recommends that the compliance obligation in a carbon cap and trade program be placed on the entity that first delivers the power to the electricity grid in California (the deliverer point of regulation). This interim opinion also recommends that allowances be allocated by a combination of administrative action and by auction, but does not specify precisely how this will be done.

- Joint California Public Utilities Commission and California Energy Commission Staff Paper on Options for Allocation of GHG Allowances in the Electricity Sector (Apr. 16, 2008)

The allocation methods in these documents are not described in sufficient detail to say whether they would meet our objective, but we believe that an administrative allocation or an administrative allocation combined with an auction, could easily accommodate consumer, business and government and institutional demand for renewable energy to reduce carbon in the atmosphere. The following examples illustrate how this could be done.

**A. If allowances are distributed administratively:**

**1. Allowances should be allocated to emitting generators and new renewable generators based on output**

Allowances could be allocated to generators/first deliverers (including the first deliverers of renewable generation) based on their proportion of total MWh generated or delivered (output-based allocation). This would be the most cost-effective approach. The Staff Paper found that “Numerous research studies support the conclusion that output-based allocation results in lower energy price increases relative to other emission-based or auction allocations.” p.27

If an output-based allocation were adopted, the Staff Paper recommends that rather than allocate to all generation, allowances should be allocated to emitting generators, but staff note significantly that “...a variation on this approach that warrants additional analysis is the inclusion of incremental generation from new renewable sources in the eligible generation. This approach would help counter the

competitive disadvantage that renewables face under a fossil fuel-only output-based allocation method (Burtraw, Palmer and Kahn 2005).” p.31

REMA strongly supports this variation of output-based allocation to include new renewables. New renewable projects that meet the definition of “renewable electricity generation facility” contained in California Public Resources Code 25741 should receive the allowance allocation, except that to accommodate the first deliverer approach such facilities would not be limited only to in-state facilities. In this way, new renewable generators would have control of some allowances that they could sell to emitting plants that require additional allowances, or they could sell them along with RECs to retail consumers with an interest in reducing their carbon footprint. The latter disposition would enable the retail purchasers to satisfy their goal and expectation that their purchases of renewable energy reduce GHG emissions, and would encourage greater voluntary purchase of renewably generated electricity. If unbundled RECS were sold to the voluntary market, the remaining energy should no longer be considered carbon-free for purposes of the California cap and trade rules, nor should the energy qualify toward state RPS requirements. By excluding the use of the underlying power (stripped of its RECs) from qualifying, additionality would be ensured and double counting is avoided.

We believe the merits of this modified output-based approach include the following:

- It strengthens market-based mechanisms to help achieve emission reductions.
- It builds on the market growth and momentum that voluntary demand for renewable energy has already achieved.

- It supports and substantiates consumer expectations that their voluntary actions create emission reductions.
- It is consistent with state policy to strongly encourage renewable energy development.

This approach could also work well for entities other than the first deliverers of electricity, such as smokestack industries, with an emissions compliance obligation. In this case, such covered entities would be motivated to purchase renewable electricity and its attributes (or tradable RECs if they are allowed) as long as such purchases include the emissions allowances that have been allocated to the renewable generator. In this way renewable energy can become a true compliance strategy integral to the cap and trade program.

## **2. Allowances could be retired by the cap-and-trade administrator on behalf of voluntary market demand for renewable energy**

An acceptable alternative to the modified output-based allocation described above is similar to the approach taken by the RGGI states. If allowances are allocated only to emitting generators, the allocation design could include explicit provision to retire allowances for voluntary renewable energy demand *before* the remainder is distributed. Prior to each compliance period, the Air Resources Board or regulatory agency would estimate the anticipated volume of voluntary renewable energy purchases from all eligible renewable energy facilities for an upcoming compliance period and retire the appropriate number of emissions allowances on behalf of the voluntary renewable energy market before allocating the remainder.<sup>10</sup>

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<sup>10</sup> Eligible renewable energy could be defined by reference to RPS definitions, and could include a generator vintage threshold to encourage the purchase of energy from newer facilities. In some RGGI

After the end of each compliance period, entities (including generators, retail marketers, certifying organizations and purchasers) would report the total volume of their eligible voluntary renewable energy market sales to end use customers located in California, to the ARB. Under the deliverer obligation proposed by the Commission, a deliverer that delivers energy from a generator located outside California would also be eligible, provided that the generator meets other renewable energy eligibility definitions. In addition to documentation of the delivery, ARB could rely upon the WREGIS tracking system to verify renewable generator eligibility and to avoid double-counting.<sup>11</sup>

At the end of the compliance period, the regulatory agency would "true up" the difference between the total volume of estimated voluntary renewable energy market sales and the total volume of actual voluntary renewable energy sales from eligible renewable energy facilities by adjusting the deduction for the voluntary renewable energy market for the next compliance period accordingly.

In this way, the renewable generators are not issued allowances at all, but the regulatory agency would retire allowances based on retail purchases, thus enabling the purchasers to make a difference with their renewable power purchases and to

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states, rather than the cap-and-trade administrator making the estimate, the rules call for the state PUC or energy agency to provide the administrator with the estimate.

<sup>11</sup> Renewable energy used to satisfy the requirements of the California RPS would not be eligible because the voluntary demand must be incremental to make a difference, and because the mandatory demand of the RPS is already taken into account in modeling emissions and setting the cap.

make claims about reducing greenhouse gas emissions as a direct result of their actions.

As with the previous example, this could also be adapted to encourage other covered industries to purchase renewable energy as a compliance strategy. If the rules were written correctly, the covered entities could demonstrate compliance without actually owning the allowances if they were retired on their behalf.

**B. If allowances are distributed by auction:**

Recognition of and support for the voluntary renewable energy market could be accomplished in the same way as described in I.A.2 above—by retirement of allowances by the administrator—if California were to combine this approach with auctioning allowances. In fact, all of the RGGI states that have so far adopted or proposed rules plan to auction the vast majority of allowances, but will incorporate a provision for administrative retirement of allowances. As described above, the estimate of voluntary renewable energy demand would be made prior to the beginning of the compliance period and before the auction. The equivalent allowances would then be retired. After the close of the compliance period, proof of voluntary renewable energy purchases would be required, and if different from the projected purchases, the difference would be trued up.

If purchases exceed the projection, then the difference would be added to the projection of voluntary renewable energy demand for the next compliance period; if purchases are less than the projected amount, then the difference would be deducted from the next year's projection.

### **C. If allowances are distributed by a hybrid approach:**

Both approaches we have described can work with a combined administrative allocation and auction. A modified output-based allocation is compatible with the portion of the budget that is administratively allocated. The retirement of allowances by the administrator on behalf of voluntary renewable energy purchases is compatible with either a modified output-based allocation or with an auction.

## **II. CONCLUSION**

The Renewable Energy Marketers Association appreciates the opportunity to present these views on the allocation of allowances to support voluntary renewable energy markets. We emphasize that what we propose is not that unusual, and there are detailed examples in other state rules. Wisconsin and Pennsylvania, for example, have proposed output-based allocations, including allocating allowances to renewable generation, as part of their Clean Air Interstate Rules, and northeastern states participating in RGGI have proposed or adopted the approach of administratively retiring allowances on behalf of demonstrated voluntary demand for renewable energy.<sup>12</sup>

We believe that customer choice to meaningfully contribute to GHG reductions is at stake without a voluntary renewable energy allocation. The importance of allowing individuals, private companies, local government and non-profits the ability to take pro-

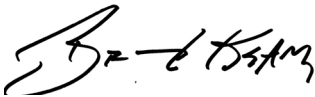
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<sup>12</sup> Bird, Lori, Edward Holt and Ghita Levenstein Carroll, “Implications of Carbon Cap-and-Trade for US Voluntary Renewable Energy Markets.” *Energy Policy* 36 (2008) 2063–2073, June.

active measures to stem the threat and consequences of global climate change cannot be overstated. We are at a historic moment in time and all viable, cost-effective options to reduce GHG emissions should be encouraged. Voluntary renewable energy markets offer citizens and businesses the power of choice—a fundamental value in our society – and leverage market forces to encourage technology innovation and improvement. We believe it is essential to encourage individuals and organizations to make meaningful choices about their electricity supply, and in so doing, help address climate change, reduce air pollution, and support the transition to a cleaner energy future.

Respectfully submitted this June 2, 2008 at San Francisco, California.

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