



January 8, 2010

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RE: Comments On Draft Analyses For The California Renewable Electricity Standard

Dear Mr. Mehl and Mr. Collord,

The Large-scale Solar Association¹ (“LSA”) appreciates the opportunity to submit the following comments on the draft Renewable Electricity Standard (“RES”) analyses.² These comments also address important issues staff indicated they will address in the first draft RES regulations. We urge the California Air Resources Board (“CARB”) to consider this letter in conjunction with our November 20, 2009 letter that addressed the RES Concept Outline.³

This letter provides four points for CARB’s consideration. *First*, LSA supports the broad panoply of AB 32 measures, but CARB should not reduce the RES obligation based on expected attainment of additional AB 32 goals, specifically combined heat and power (“CHP”), customer generated solar electric power, and plug-in vehicles. *Second*, RES regulations should create a delivery requirement

¹ LSA represents eleven of the nation’s largest developers and providers of utility-scale solar generating resources. Collectively, LSA’s members have contracted with utilities in California and the West to provide over 6 gigawatts (“GW”) of clean, sustainable solar power. Our members develop, own, and operate various types of utility-scale solar technologies, including photovoltaic and solar thermal system designs. LSA and its individual member companies are leaders in the renewable energy industry, advancing solar generation technologies and advocating competitive market structures that facilitate significant integration of renewable energy throughout the western United States. LSA actively represents the interests of utility-scale solar development in California, Arizona, and Nevada, and also works to shape regional and federal policies that affect solar market development.

² The Draft Technical Feasibility, Economic and Environmental Analyses were presented at the December 14, 2009 CARB Staff workshop. The analyses and meeting presentations are available at: <http://www.arb.ca.gov/energy/res/meetings/meetings.htm>

³ On November 20, 2009, LSA submitted comments to CARB addressing the RES Concept Outline. The November 20th letter is available at: <http://www.arb.ca.gov/energy/res/comments/lsaeddy.pdf>

and limit unbundled renewable energy credits (“RECs”) for certain load serving entities (“LSEs”). Unlimited use of unbundled RECs will be inconsistent with CPUC policy, frustrate California’s policy priorities, and distort the value ratepayers expect from their renewable energy investments. *Third*, CARB should consider greenhouse gas (“GHG”) benefits consistently with how CARB evaluates criteria pollutants and ambient air quality (i.e. on a larger geographic basis). *Finally*, CARB should strive to create the most accurate and balanced technical analyses possible. The current, expedited timeframe for the RES rulemaking is likely to frustrate CARB’s attainment of this goal.

I. The RES Program Should Accurately Account For CHP Goals.

LSA supports the many goals contemplated in the AB 32 Scoping Plan, and appreciates that a 33% RES, among other policies, is needed to achieve California’s GHG goals. However, CARB should not reduce the forecasted renewable generation requirements by assuming attainment of all of the other scoping plan goals that, if unrealized, will result in a failure to meet the overarching 33% renewables goal.

CARB’s proposed concept outline for California’s RES considers the potential for interaction among various AB 32 measures identified in the Scoping Plan. Under this approach (in either a percentage or GHG based RES), progress toward other Scoping Plan measures would partially offset the RES requirement. If, for example, the RES were a percentage-based program, the retail load to which the percentage is applied would be reduced to reflect:

- CHP procured by the LSE to serve retail load;
- Electricity from net-metered distributed generation (“DG”) in the LSE’s service territory; and
- Electric vehicle load served by the LSE.

For a 33 percent RES obligation, an LSE’s RES obligation would be reduced by 1 megawatt hour (“MWh”) for every 3 MWhs of any of the other complementary measures. The same concept could be applied if the target were based on a metric ton measurement of GHG reductions, rather than a percentage of load.

While each of these policy objectives may be important within the scope of AB 32, there is no reason why their achievement should rest on a reduction of the RES requirement. Executive Order S-14-08⁴, on which the later Executive Order, S-21-09 was based, did not contemplate this reduction. S-14-08 stated simply: *“All retail sellers of electricity shall serve 33 percent of their load with renewable energy by 2020.”* Moreover, the potential GHG reduction savings identified for these measures in the Scoping Plan were independently determined. Allowing progress on one measure to offset progress on another measure could reduce the overall Scoping Plan goals.

Specifically, the forecast of 4,000 megawatts (“MWs”) of additional CHP should not reduce load levels in the denominator used for calculating the RES requirements. Since CHP facilities have operational GHG emissions, regulatory incentives given to them could lead to the outcome that GHG-emitting resources would be preferred over facilities with no operational GHG emissions. Because fossil-fuel fired CHP facilities are not eligible renewable resources, and CHP facilities emit operational GHGs, giving them a regulatory preference in the context of the RES may not be appropriate.

⁴ S-14-08 is available at: <http://gov.ca.gov/executive-order/11072/>

In addition, the California Solar Initiative (“CSI”) program should not result in double counting for a 33% RES. CARB should not reduce load projections based on attainment of CSI goals and count CSI eligible generation systems towards the 33% RES goal. Solar electric power generated entirely “behind the meter” for use only at the site of generation should be distinguished from exported power at wholesale to the grid by solar electric systems. “Behind the meter” solar electric systems already reduce an LSE’s load because the customer is self-generating all or part of its demand, and this generation therefore does not need to be subtracted a second time from the LSE’s sales. Solar electric power exported at wholesale to the grid pursuant to net metering laws, a feed-in tariff, or a power purchase agreement with an LSE will include the sale to the LSE of the associated RECs, meaning that the inclusion of that power in the LSE’s sales will not change the LSE’s renewable percentages for purposes of RES compliance.

Finally, the Low Carbon Fuel Standard (“LCFS”) should similarly not reduce the RES target, absent an explicit showing that this effort will directly reduce electricity demand.

II. RES regulations should create a delivery requirement and limit use of unbundled RECs for large LSEs that have the most predictable load.

LSA urges CARB to incentivize in-state energy development and production by establishing a limit on the annual volume of unbundled RECs that may be used in any year where the energy is not delivered into California. This is particularly critical given the much higher degree of difficulty associated with securing requisite permits for in-state projects as opposed to development that may be pursued in other areas. If the significant economic, public health, and environmental benefits to California from in-state renewable generation deployment are to be realized, then it is appropriate to apply some limitations on the use of unbundled RECs for RES compliance. As noted in Executive Order S-14-08, “California has some of the best renewable energy resource areas in the world, providing immense potential for clean, valuable electricity generation in the state, and the development of these resources must be accelerated....” The fact remains, however, that despite this tremendous development potential, California remains one—if not the most—difficult places to permit renewable facilities. The long permitting time-frames and substantially higher mitigation requirements place significant pressures on renewable developers. If California allows unlimited use of unbundled RECs, those economic drivers will effectively prohibit California from yielding the following (non-exhaustive) list of benefits from in-state renewable development:

- (1) air quality benefits (both GHG and criteria pollutants);
- (2) direct economic benefits including jobs, tax revenue, and a California centered industry; and
- (3) reliable operation of the grid (although solar is considered an intermittent resource, solar production is not particularly volatile and tends to match summer peak load conditions. Consequently, solar requires relatively little support from fast-starting fossil fired resources).

In contrast, allowing the unlimited use of unbundled out-of-state RECs for RES compliance will hurt the solar and renewable energy market and resource development in California. Such a policy will

also be inconsistent with the policy direction the CPUC has taken in its recent Proposed Decision authorizing the use of Tradable RECs (“TREC PD”).⁵ The TREC PD finds that:

In order to maximize the benefits of reducing California's fossil fuel use and gain the attendant benefits of reduction in air pollution, improvement in public health, and reduction in energy price volatility, without damaging the basic structure of the TREC market, it is reasonable to impose on the three large IOUs a temporary reviewable limitation of 40% of APT annually on their use of TRECs.⁶

CARB’s decision not to adopt a limitation on unbundled TRECs could run counter to the limitations called for in the TREC PD and consequently create inconsistencies with the existing RPS program. As we mentioned in our November 20, 2009 letter, maintaining consistency with the existing RPS program implementation structure should be one of the highest priorities for the RES program. It is also important for CARB to avoid policies that could be seen as misleading ratepayers. For example, since ratepayers incur the costs of increased renewables procurement at the reported levels, ratepayers will expect to have the benefits of those procurement decisions delivered to them. As previously described, permitting uncontrolled use of out-of-state unbundled TRECs for RES compliance will undermine ratepayers’ enjoyment of the benefits of an in-State renewable energy industry. Accordingly, some level of limitations on the use of unbundled TRECs for RES compliance is critical to realize ratepayers’ ongoing investment in renewable energy development.

From a practical standpoint, LSA believes allowance of unbundled and undelivered TRECs is reasonable for the smaller load-serving entities with higher levels of contestable loads that may migrate to other suppliers. Similarly, the unique circumstances of the state’s two multi-jurisdictional utilities support particularized treatment. However, with respect to renewables procurement by the larger load-serving entities that have stable customer bases, it is important to direct development of new, in-state renewable generation through limitations on use of unbundled TRECs. Therefore, in the case of the three large IOUs, LSA supports a limit of 20% unbundled TRECs under the new incremental RES procurement obligation (i.e., this limitation should not include TRECs that are applied to the current 20% RPS procurement goal).

III. CARB Should Account For GHG Emissions Consistently With How It Evaluates Ambient Air Quality

In our November 20th letter we urged CARB to avoid isolating GHG factors for any individual technology because that accounting methodology would be misleading and would create serious inconsistencies with the existing RPS regime. At the same time, LSA recognizes that CARB will assess GHG factors for the energy sector under AB 32. CARB’s existing analysis of criteria pollutants is a helpful analogy for how CARB may approach its GHG analysis in the context of the RES program and exercising its AB 32 authority. Criteria pollutants are evaluated over larger geographic areas. This allows CARB to capture important public health and other relevant information germane to a particular air basin. Similarly, GHG emissions should be evaluated on a larger, system-wide basis to capture the GHG benefits of integrating renewables across the entire electric system.

⁵ CPUC, Proceeding R.06-02-012, *Proposed Decision Authorizing Use of Renewable Energy Credits For Compliance With The California Renewable Portfolio Standard* (“REC PD”) (December 23, 2009), available at: <http://docs.cpuc.ca.gov/efile/PD/111679.pdf>

⁶ See RECs PD at P. 73.

IV. The RES Regulatory Timeframe Should Be Extended To Avoid The Creation Of Inaccurate Or Incomplete Analyses.

The completion dates for the technical analyses and adoption of regulations are too aggressive. CARB's efforts may suffer to the extent staff draw on incomplete or as-yet nonexistent data. For example, data from the Desert Renewable Energy Conservation Plan ("DRECP"), the Solar Programmatic Environmental Impact Statement ("PEIS"), the CAISO 33% Integration Report, and the CPUC 33% Preliminary Results Report are all in draft form. While much of this data is simply not available or still in draft form, other portions of the analyses are too complex to be completed before the third quarter of 2010. CARB's statements that it will complete an E-DRAM model and a statewide renewable energy CEQA analysis in approximately five months are unrealistically ambitious. This expedited time-frame could result in inaccurate or incomplete results which can then provide grounds for legal challenges.

Irrespective of the proposed timeframe, LSA is also concerned that CARB has structured its analyses in a manner that will limit meaningful comparison of the policy tradeoffs the analyses are intended to frame. CARB should avoid compartmentalizing the technical analyses. CARB should include environmental benefits associated with renewable generation in its cost effectiveness analysis. As mentioned above, CARB should seek to value the benefits associated with in-state renewable project development, including benefits from potential manufacture and construction, air quality improvements and the potential avoidance of additional peakers. These estimated values should be explicitly considered in conjunction with the economic costs of a 33% RES in order to provide context for the tradeoffs framed in the economic analysis.

V. Conclusion

LSA appreciates the opportunity to provide these comments. In sum, it is critical for CARB to create a program that is supported by solid data. To this end, CARB should not over-rely on CHP or other AB 32 goals by assuming a lesser need for renewable resources. CARB should also ensure that ratepayers receive the benefits they are paying for by placing limits on unbundled, out-of-state RECs. With respect to the RES accounting methodology, CARB should analyze GHG emissions in the context of the broader electric system. Finally, CARB should ensure that its analyses are accurate, and specifically consider environmental benefits in the context of its economic analysis. If you have any questions, please do not hesitate to contact me.

Sincerely,

/s/

Shannon Eddy
Executive Director of the Large-scale Solar Association