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CBEA Comments to ARB on the RES Proposed Concept Outline

Nov. 20, 2009

To: Gary Collord, RES program at the ARB
Via E-mail

Attached please find Comments of the California Biomass Energy Alliance on the *Proposed Concept Outline for the California Renewable Electricity Standard*. We support your efforts to create this important new program, and congratulate you on a fine start.

The California Biomass Energy Alliance is the trade association for the solid-fuel biomass generating facilities in the state. There are approximately 600 MW of baseload biomass operating in the state, providing approximately 15 percent of the state's renewable energy.

Thank you for the opportunity to comment.

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Threshold for Application of Regulation

The ARB Proposed Concept Outline considers whether to set a minimum size threshold for entities subject to regulation, based on the annual sales of the entity. Exempting the smallest entities presumably would have minimal overall impact on the state's greenhouse-gas emissions. If the RES standard allows for unrestricted use of unbundled RECs, then we see no need to establish a size threshold. On the other hand, if unbundled RECs are restricted, then a minimum-size threshold might make sense. However, should a minimum-size threshold be established within the RES program, it is our opinion that in addition to being below the threshold an entity should not be able to escape regulation if they have more than a de minimus amount of coal power in their resource mix. All entities that have coal power in their supply mix should be subject to regulation.

Complements the Existing RPS Program

We are strongly supportive of developing an RES program that builds upon and complements the existing RPS program, and that completely avoids duplication between the two programs. Part of the complementariness of the two programs should be that both count RECs using WREGIS, and that if both programs have compliance obligations in the same year, RECs that count toward the RPS program should also count toward the RES program.

However, there is one important issue that needs to be addressed in regards to the meshing of the RPS and RES programs. Nearly all of the existing electric companies and electrical service providers in the state are currently behind in meeting their RPS program annual procurement targets (APTs), and most are falling further behind every year. None of the IOUs or ESPs, and few if any of the POUs, will achieve the statutorily mandated 20-percent RPS target by 2010, and most of them won't meet it by 2013 either. This means that if the RES program targets start at 20-percent in 2013 as suggested in the Proposed Concept Outline, and increase from there to 33-percent by 2020, then most or all of the regulated entities in the state will be behind from the start. The RES program needs to be designed around this unfortunate circumstance, or regulated entities could find themselves behind from the start, and never be able to catch up.

RES Eligible Resources

CBEA strongly supports the decision in the Proposed Concept Outline to avoid making changes in the set of eligible resources for the RPS program that will be eligible for the RES. This is particularly important in the case of biomass resources. A good deal of controversy has arisen lately regarding the greenhouse-gas implications of biomass-energy production, particularly with regards to the issue of the indirect land-use implications of harvesting forests

and growing crops for energy purposes. In fact, none of the biomass fuel used for energy production in California or anywhere in the U.S. is based on harvesting standing forests, or growing energy crops. All of the biomass fuel is waste and residue forms of biomass, which do not have any direct or indirect land-use implications, and the conversion of which into energy provides valuable waste-disposal services to the state. All use of waste and residue forms of biomass fuels should be categorically declared carbon neutral, and remain eligible for the new California RES standard.

We believe strongly that the RES should adopt the finding made by the PUC in adopting its greenhouse-gas emissions-performance standard under SB 1368, which is a finding that the use of biomass for energy production as currently practiced is carbon-neutral at the least, and in most cases produces quantifiable reductions in the emissions of biogenic-carbon greenhouse-gases due to improvements in the handling and disposal of wastes and residues:

In particular, the record shows that electric generation using biomass (e.g., agricultural and wood waste, landfill gas) that would otherwise be disposed of under a variety of conventional methods (such as open burning, forest accumulation, landfills, composting) results in a substantial net reduction in GHG emissions. This is because the usual disposal options for biomass wastes emit large quantities of methane gas, whereas the energy alternatives either burn the wastes that would become methane or burn the methane itself, generating CO₂. [D.07-01-039, pg. 18.]

Geographic Eligibility and Out-of-State, Unbundled RECs

The Proposed Concept Outline for the RES states that facilities located in- or out-of-state and connected to the WECC grid are eligible for the RES, which is consistent with the state's current RPS program. However, the current statutes governing the RPS program also impose delivery requirements into California, which some have suggested should be modified for the RES in order to allow for the use of unbundled RECs from out-of-state generators. It is our opinion that while there may be legitimate reasons for allowing the use of out-of-state RECs that are associated with energy that is not delivered into California, there should also be a strong incentive put in place of some kind to promote the use of renewable energy that is generated within the state.

The greenhouse-gas benefits of renewable generation are unconnected to the site of the generation, but many of the other significant benefits of renewable generation, such as reductions in conventional air pollution, and the provision of jobs and community development benefits, are only obtained from in-state generation. Some of California's biomass generators, for example, are the largest employers and property-tax payers in their counties. These are valuable benefits that should be encouraged as much as possible. Recognizing these kinds of benefits is well within the purview of the AB 32 statutes.

RES Compliance and Metrics

The section of the Proposed Concept Outline on RES compliance begins (pg. 10): “Similar to the existing RPS program, RES compliance would generally be assessed on the basis of a regulated party’s proportion of electricity sales obtained, or load served, from eligible renewable resources.” In fact, this sentence contains two different alternatives for how compliance could be determined, the difference between them, sales based, or based on load served, being the system-wide line-loss factor of approximately 5 – 10 percent. The existing RPS program bases compliance on the proportion of electricity sales obtained from renewables, rather than on the proportion of load served. We have long considered basing the compliance test on the proportion of electricity sales to be a mistake within the RPS program that is inconsistent with the intent of the RPS statutes, and misleading to customers. Therefore, we strongly encourage the ARB to base the RES compliance test on the proportion of load served. That way, when the program advertizes itself as requiring that 33 percent of the electricity mix must be obtained from renewables, in fact 33 percent of the total mix will be generated by renewables, including energy necessary to offset line losses.

Compliance with the existing RPS program is denominated in RECs, where one REC represents the renewable attributes of one MWh of electricity. The Proposed Concept Outline considers whether to continue to use the REC metric for the new RES program, or to transition to a metric based on the quantity of greenhouse gases avoided by renewables. There are two basic approaches to basing the metric on avoided greenhouse-gas emissions. The first approach is to develop a set of conversion factors that are resource and/or technology specific. The second approach is to use a uniform conversion factor for all eligible renewable energy. Each of these approaches has serious flaws, and should be rejected. We strongly recommend using the REC as the compliance metric for the RES program. Using an avoided greenhouse-gas-based metric would not only fail to provide any significant advantages to the new program, it would cloud its compatibility with the existing, REC-based RPS program.

The first approach to determining a greenhouse-gas-based metric involves developing a set of resource- and/or technology-specific conversion factors. This approach suffers from serious methodological difficulties. PUC Decision D.07-01-039 shows that the differences among renewables with respect to intrinsic, fossil-carbon emissions are slight, but reasonably accessible to analytical manipulation. However, in order to produce a set of representative, resource- and/or technology-specific conversion factors, system-wide dispatch factors might also have to be taken into account. This could lead to endless controversy, not to mention the need to continuously update the factors as system-wide resource availability and relative prices change over time, both of which affect resource-dispatch decisions.

Should this approach be adopted for the RES, it is important to note that the treatment of biomass and biogas will have to be carefully considered. Like other renewables, biomass and biogas generating sources emit only minimal amounts of fossil-carbon emissions, and electricity generated by these baseload renewables avoids generation based on fossil fuels. However, what is unique to biomass and biogas is that these renewables use carbon that is

already part of the atmospheric-carbon-circulation system, and in the course of producing renewable electricity, biomass and biogas generators actually reduce the net amount of biogenic greenhouse-gas emissions that are produced in the recycling of the biomass. In the RPS program, biomass and biogas are treated like all other renewables as carbon neutral, and the attributes associated with their fuel, including reductions in biogenic greenhouse-gas emissions, are specifically excluded from their RECs. If the ARB were to adopt a program metric for the RES program based on avoided greenhouse-gas emissions, it will have to decide how to handle the biogenic greenhouse-gas emissions reductions that biomass and biogas generators have been providing in California for more than 20 years. This will require a considerable amount of effort.

The second approach to developing an avoided-greenhouse-gas metric, using a uniform conversion factor for all eligible resources, adds absolutely nothing to the process, since compliance performance would be linearly scaled, but otherwise unaltered, from the performance metric based on RECs. Moreover, because WREGIS is a tracking system only for RECs, it would require adding a post-WREGIS algorithm that would be completely unnecessary for purposes of determining compliance. Both the RPS and the RES are programs that are designed to provide specific proportions of renewable energy in the overall energy mix that serves California's electricity customers. It is both natural and appropriate to measure compliance with these programs in energy units, and RECs are energy units. The new RES program should use RECs as its primary compliance metric.

Compliance-Period Targets

We agree that all regulated entities under the RES should be given a schedule of annual compliance targets that end at 33 percent in 2020. However, we do not believe that a single schedule for all entities, as illustrated in Table 3.1, should be used, for the reason that it is highly unlikely that many of the state's regulated entities will in fact be at the 20 percent level by 2014, as also shown in the table. Our suggestion is to develop regulated-entity-specific schedules that begin in 2010 at each entity's actual (pre-flexible compliance) renewable level, and move linearly, or better yet logistically, to 33 percent in 2020. Starting regulated entities at levels they cannot, in fact, achieve will discourage compliance efforts on the parts of those regulated entities, and probably will encourage them to spend as much effort in justifying their non-compliance as they do in trying to achieve compliance, a situation that in our opinion may well undercut efforts on the parts of utilities to comply with the existing RPS program.

Compliance Schedule

The Proposed Concept Outline asks whether the RES should use single-year or multi-year compliance periods in the enforcement of the new program. In our opinion it does not make sense to opine on optimal compliance periods without also considering the issues of forward banking and retrospective transfers, both of which are expressly provided for in the existing RPS statutes. The existing RPS program utilizes annual compliance periods augmented by a

flexible compliance program that provides for unlimited forward banking of RECs, and backwards transfers of RECs under specified conditions for up to three years. In our opinion, the use of multi-year compliance periods should only be considered if the existing RPS flexible-compliance mechanisms are eliminated or severely restricted. Otherwise the ARB risks setting up a compliance system that is so flexible it doesn't ever require real compliance, or move us forward toward meeting state renewables goals.

Indeed, we are concerned that the existing flexible compliance system that has been developed at the PUC for the RPS, which uses annual compliance periods and allows backwards transfers for up to three years, is itself too flexible to promote timely and strict compliance with program requirements. For example, the state's two largest utilities have recorded increasing annual renewable-energy procurement deficits every year beginning in 2006, and those deficits will increase significantly in 2010 when the 20-percent target is statutorily imposed. However, due to the opportunities offered by flexible compliance, as well as baseline targets that were set lower than the then existing infrastructure supported, the earliest year in which an enforcement action might take place for any LSE is probably 2012, on behalf of compliance-year 2008. That is ten years into a program in which the major utilities have lost ground in meeting their compliance obligations every year since the inception of the program.

In our opinion the theoretically optimal compliance system would be based on annual compliance obligations augmented by forward banking, but no backward transfers. In the real world, such a system has two drawbacks. First, during periods when annual compliance obligations are increasing every year towards mandated programmatic goals, handling the lumpiness of new project development on the part of the procurement portfolios of regulated entities benefits from some level of backward, as well as forward, transfers. Second, even if the renewable-energy generating infrastructure has been built-out enough to provide, on an expected basis, the programmatically-mandated amount of renewable energy, the fact is that the amount of generation in a given year, particularly if the mix contains significant amounts of intermittents, will be stochastically variable, which means that in some years an inadequate amount of actual generation will occur, while in other years surplus generation will be achieved.

These drawbacks, in our opinion, can best be accommodated by the use of annual compliance obligations that are based on two- or three-year rolling averages, rather than allowing backwards transfers of RECs. Compliance has to be frequent enough to provide for timely enforcement, and with the current system of flexible compliance in the RPS program enforcement cannot take place until more than three years after a compliance period has ended. That does not make for effective enforcement, the proof of which is that all of California's IOUs are currently out of compliance with their procurement obligations and falling increasingly behind every year, and none have yet had to justify their lack of performance under the RPS program, or pay a price for it.

Monitoring and Verification

Section 4.b of the Proposed Concept Outline states:

The RES regulation would be designed to utilize as much of the current monitoring, reporting, and verification systems developed and implemented by the CEC and the PUC for the RPS program, including WREGIS verification of eligible renewable generators.

In fact, WREGIS does not provide verification of eligible renewable generators. That function is provided externally to WREGIS by the CEC, as provided for by statute. Nor does WREGIS provide verification of amounts of generation that are reported to it by the qualified reporting entities that provide data to WREGIS. That function, too, is provided by the CEC, consistent with their statutorily-assigned duties. WREGIS is just a tracking system. Its most important function is to prevent double counting of RECs, which it does a good job of.

Compliance and Enforcement

Section 5.a of the Proposed Concept Outline concludes with the statement that: “to the extent possible these submittals would be combined with reporting requirements established under the RPS program (page 13).” We believe that this sentence should include an affirmative instruction to use WREGIS.

As discussed above in the section on Compliance Schedule, we are concerned that the compliance and enforcement program employed in the existing RPS program has not yet provided any kind of program correction despite the fact that the state’s utilities have been steadily losing ground on achieving their renewables procurement targets every year that the program has been in effect. The Proposed Concept Outline states that reporting obligations for the RES program will begin in 2012, and compliance obligations in 2013. This means that by the time the initial compliance year has ended, there will be only six years remaining for regulated entities to increase their procurement from, in most cases, less than 20 percent in 2013, to fully 33 percent in 2020. With the RPS-flexible-compliance system, procurement deficits in 2013 would not be enforced until 2017, by which point regulated entities not already on track to achieve 33 percent by 2020 would have little chance to get on track. Timely and effective enforcement is particularly needed in a program like the RES that has such a short timeframe in which to achieve full implementation.