Comments of the Green Power Institute on the ARB's Preliminary Draft Regulation for a California Cap-and-Trade Program

January 11, 2010

Respectfully Submitted by:

Gregory Morris
Green Power Institute / Pacific Institute
2039 Shattuck Ave., Suite 402
Berkeley, CA 94704
(510) 644-2700

Introduction

The Green Power Institute (GPI) respectfully submits these comments on the California Air Resources Board's (ARB) November 24, 2009, *Preliminary Draft Regulation for a California Cap-and-Trade Program*. We believe that this comprehensive document does a very good job of setting forth a program for the implementation of a California cap-and-trade program as part of the overall state effort to implement AB 32. We offer comments in the areas of compliance and enforcement, sectors covered during the initial compliance period, limitations on the use of offsets, mandatory reporting, combustion of biomass fuels, co-pollutants, registration and tracking, and free distribution vs. auctioning of greenhouse-gas emissions allowances. Our *Comments* pertain to the regulated segment of the state's electricity sector, except as otherwise noted.

Compliance and Enforcement

Achieving California's ambitious greenhouse-gas reduction goals will not be easy. Indeed, there is likely to be a good deal of push back and resistance on the parts of many emitters. Therefore, in order for the ARB to have any chance of developing an effective program it will be crucial to back it up with a strong compliance and enforcement mechanism. Failure to include swift and predictable enforcement will doom the program from the start.

The flexible compliance rules for the RPS program provide a constructive case example. In order to mitigate against the inevitable lumpiness of new project development, as well as to dampen year-to-year fluctuations in renewable energy output, RPS flexible compliance rules allow current year procurement deficits to be satisfied with surplus or earmarked generation over the three years following a given compliance year. While there is an essential logic underlying this system, which is actually established through the state's original RPS statutes, the practical problem with the system is that enforcement for procurement deficits in a given compliance year is delayed by three years to allow for flexible compliance mechanisms to be employed. This long lag in enforcement undermines the program's progress.

The enforcement lag in the RPS system is further exacerbated by the way that the initial baselines were developed for the state's three large investor-owned electric utilities (IOUs). Each of the IOUs was given an initial-year baseline procurement target for 2003 that was below the level at which they were actually procuring renewable energy (for the cap-and-trade program the equivalent tendency would be to set baselines too high). The result of these low baselines was that each of the IOUs managed to build up an over-procurement cushion that was forward bankable. As the three IOUs went from surplus to deficit states with respect to their procurement targets over the next several years, the earliest deficits were cancelled out with banked surplus energy that was made possible by the low baseline. This, too, has delayed the inevitable enforcement role that the PUC has not yet had to tackle, despite the fact that the state's two largest utilities have been recorded increasing procurement deficits beginning in 2006. The result has been that the IOUs have lost ground with respect to their annual and incremental procurement targets every year since the program went into effect. Nevertheless the first compliance-enforcement action is still at least a full year off, well after all three IOUs will have failed to meet their statutory requirement of 20-percent renewables by 2010.

We strongly urge the ARB to be cognizant of the interplay between baselines, length of compliance periods, and provisions for satisfying deficits in the surrender of compliance instruments during current compliance periods with instruments from future compliance periods. The cap-and-trade program begins in 2012, during which year presumably the ARB will allow the full baseline quantity of emissions permits to be issued, and culminates a scant 9-years later with emissions ratcheted down by 10 - 15 percent, to 1990 levels. The Draft Regulation,

following from the recommendations in the AB 32 Scoping Plan, proposes to use three-year compliance periods for the cap-and-trade program, with the possibility of additional flexible compliance provisions. This much flexibility, particularly if initial baselines are set conservatively (i.e. on the high side), which virtually every emitter will push for, will not provide for the kind of compliance rigor and enforcement that will achieve the goals of AB 32. We urge the ARB to set tight baselines, and to institute one-year compliance periods with the possibility of backwards transfers of permits limited to the following year, so that if necessary, compliance actions can begin in 2015 if there are deficits in permit surrender during the 2013 compliance year, the first year when the supply of allowances is ratcheted down below the baseline level.

Sectors Covered during Initial Compliance Period

The Draft Regulation proposes that only large, stationary emitters be included in the cap-and-trade program during the initial three-year compliance period three-year compliance period, with smaller fuel users and transportation added to the program for the second three-year compliance period (beginning in 2015). This proposal is consistent with the AB 32 Scoping Plan, however we think it is the wrong way to go. We strongly disagree with the plan to delay the inclusion of small fuel users and transportation until the second compliance period. Indeed, the whole purpose of using a cap-and-trade program to seek emissions reductions that go beyond the reductions that will be accomplished through individual mandates, such as the 33-percent renewables by 2020 goal, and the enhanced efficiency goals, is to allow such additional reductions to be accomplished among sectors on the basis on cost effectiveness. Failure to include sectors as important as transportation and small fuel users will stymie the ability of the market to find and take advantage of those tradeoffs during its critical initial operating years, thus undercutting the rationale for instituting a cap-and-trade program. There is no good reason not to include small users of fossil fuels and transportation in the program's initial compliance period.

Limited Use of Offsets

The Draft Regulation allows for the use of a limited amount of offsets in lieu of emissions allowances in the cap-and-trade program. The proposed limit on the use of offsets is four percent

of each emitter's surrender obligation. We recognize the concerns that have led to setting this limit at a low level, but we believe that a more nuanced approach is warranted, particularly in view of the wide variety of kinds of reductions that might be offered as offsets. For example, we believe that offsets that are created for in-state activities, especially ones that have substantial benefits to the state in addition to the reduction of greenhouse gases, should be allowed into the system without counting towards the four-percent cap on offsets.

In particular, we believe that offsets that are awarded for the use of biomass fuels in California whose alternative disposal, in the absence of energy production, would not only lead to greater quantities of greenhouse-gas emissions, but also other environmental damages, should be usable without limitation in the cap-and-trade program. Our notion is that the total quantity of offsets that would qualify for special treatment of this kind (exclusion from the limitation on the use of offsets), based on being generated in-state and providing ancillary benefits, would be small. It might be appropriate for the ARB to decrease the quantity of allowances issued each year by the number of such special-treatment offsets, in order to preserve the overall greenhouse-gas-reduction trajectory achieved by the state.

Mandatory Reporting

The ARB's mandatory reporting rules, which went into effect in 2009 for 2008 emissions, should be preserved for sources that are already subject to the rules. Unless and until serious flaws are uncovered, it is important for the entire regulated community to operate with a reasonable degree of certainty as the future carbon-constrained world comes into effect. The reporting rules were developed in a fair and open process with input from a wide variety of stakeholders. Now is the time to let them work as written.

Combustion of Biomass Fuels

The Draft Regulation properly counts only fossil-carbon emissions from stationary combustion sources toward the 25,000 MT CO_2e annual emissions threshold. This threshold exempts all existing biomass generators in California from an obligation to surrender emissions allowances in the cap-and-trade program. Biogenic emissions are fundamentally different than fossil

emissions, and deserve different treatment. The ARB has made the proper decision here, and should stick with it.

Biomass energy conversion is carbon neutral because the carbon in the fuel is already part of the natural atmospheric carbon cycle. The carbon in the atmosphere is in rapid exchange with carbon in the earth's forests and agricultural lands (standing biomass). Biomass energy production uses carbon that is already part of the cycle. Fossil-energy production, in stark contrast, takes carbon that is locked away in geological storage, and adds it to the atmospheric stock.

While biomass energy production is carbon neutral due to the fact that it uses carbon that is already in the atmospheric-circulation system, the use of biomass can affect the carbon cycle in two important ways. First, biomass energy production from wastes and residues affects the mix of chemical forms in which their carbon-content is returned to the atmosphere. Energy production returns all of the carbon in the form of CO_2, while natural decay and open burning return significant amounts of the carbon in the form of CH_4, which is a much more potent greenhouse gas than CO_2. Energy production reduces the warming potential of the portion of the biogenic emissions associated with waste and residue disposal that are in the form of CH4. Second, biomass-energy production has the potential to affect the carbon cycle by altering the balance between carbon in the forest, and carbon in the atmosphere. This potential is two sided—some forms of biomass energy production have the potential to transfer carbon from forests to the atmosphere, while other types of biomass energy production have the potential to transfer carbon from the atmosphere to the forest. The use of forest thinning residues for energy production as practiced in California has the effect of enhancing the growth rate of the forests, and reducing the risks of catastrophic losses in wildfires and infestations. While there is an initial pulse of carbon transferred from the forest to the atmosphere as the forest is thinned, on a long-term, sustainable basis the amount of biomass in the forests is enhanced, with a resultant transfer of carbon out of the atmosphere.

The Draft Regulation excludes the biogenic emissions associated with biomass fuels, but uses a placeholder to reserve the right to insert provisions that may be developed later. We are aware that the subject of sustainability standards being developed for biomass energy systems has

become a hot topic of late. The focus of this interest has been on the issue of direct and indirect land-use changes that are associated with the use of crops that are grown exclusively or primarily as energy feedstocks, or forest harvests that are performed exclusively in order to produce energy feedstocks. In fact, all of the biomass fuel that is used for electricity generation in California is waste and residue material that either requires some form of alternative disposal, or is overgrowth biomass in the state's forests whose removal reduces the risks of destructive wildfires and disease and insect devastation.

The ARB considered these kinds of sustainability issues in its development of the RFS. In anticipation of the possibility that the ARB may decide to look at sustainability issues in connection with the biomass power industry at some point in the future, we ask the Board to issue a blanket exemption from sustainability standards now for all forms of biomass fuels that are wastes and residues.

Subarticle 2 of the Draft Regulation (page 7) includes a placeholder definition for biomass, with a notation that the "ARB is considering the use of the definition contained in the "Renewable Energy Program: Overall Program Guidebook, 2nd Ed., California Energy Commission, Report No. CEC-300-2007-003-ED2-CMF, January 2008." We strongly urge the ARB to adopt that definition without amendment. The definition of biomass in the CEC Guidebook was developed in an open and public process, and has served the state well in the promotion of its renewable-energy goals. All of the fuels used by the biomass energy industry in California are wastes and residues, and in all cases their conversion to renewable energy provides an environmentally desirable disposal outlet compared with the conventional alternatives, which include landfill burial, open burning, and standing forests at high risk of destructive wildfires and insect and disease attacks.

We also agree with the Draft Regulation's decision that biogenic emissions from stationary sources will continue to count towards the threshold for mandatory greenhouse-gas emissions reporting. In essence, this means that the entire existing fleet of biomass generators in the state is reporting its biogenic and fossil greenhouse-gas emissions to the ARB under the current mandatory reporting protocols. Where the biomass industry is providing real and measurable reductions in the net biogenic greenhouse-gas emissions associated with the disposal of the fuel,

offsets should be awarded. Since part of the process of documenting such net reductions may include documenting the stack emissions of biogenic carbon at the power plant, the reporting already in place will be a ready source of this data.

Co-Pollutants

It is important to note that activities that reduce greenhouse-gas emissions in the provision of various services may at the same time produce either higher or lower quantities of emissions of non-greenhouse gas pollutants than the activities that they replace. The consideration of co-pollutants in the Draft Regulation is focused on situations where co-pollutants increase as a result of activities pursued in support of AB 32 compliance, and mitigating efforts may be appropriate.

We are concerned with situations where the actions taken to reduce greenhouse-gas emissions also reduce co-pollutants. For example, the conversion of biomass residues to energy reduces not only the greenhouse-gas emissions associated with the disposal of the residues, but also produces other environmental benefits, such as reduced conventional air pollutants from open burning and wildfires exacerbated by overgrown forests, and reduced landfill disposal of organic materials. In order to encourage these kinds of ancillary benefits, it is reasonable to provide incentives for the activities that provide them. We provide above (Limited Use of Offsets) one proposal for how this can be done in the case of biomass fuels. Our proposal is that greenhouse-gas offsets that are awarded for in-state reductions of net biogenic emissions should be exempted from the four-percent cap on offsets that is proposed in the Draft Regulation. There are other possible incentives that can be given to these kinds of offsets as well.

Registration and Tracking

In order to administer a greenhouse-gas cap-and-trade program, it is necessary to be able to reliably create, track, and retire emissions allowances for emissions of greenhouse gases. The state of California, through the California Energy Commission, has recently created a WECC-wide tracking system for renewable energy certificates (RECs), called WREGIS. We believe that WREGIS can, at the least, act as a model for the development of a tracking system for greenhouse gas emissions allowances and offsets. It might very well be possible to go further

and build the greenhouse-gas tracking system on the WREGIS platform. This is a possibility deserving of exploration.

Free Distribution vs. Auction

The Green Power Institute has argued strongly against the free distribution of greenhouse-gas emissions allowances before both the PUC in its greenhouse-gas proceeding (R.06-04-009), and the ARB in its development of the AB 32 Scoping Plan. We strongly support the position that is coming out of the Economic and Allocation Advisory Committee that allowances should be distributed for their value, not given away without charge. The purpose of a cap-and-trade program is to allow the marketplace to operate efficiently in the course of achieving a low-carbon future. That cannot happen if price signals are dampened via the mechanism of free distribution of emissions allowances.

We also wish to remind the ARB that an open auction is not the only mechanism for distributing emissions allowance certificates into the marketplace at their value. A second, and complementary method is to distribute rights to purchase emissions allowances at a preset price to regulated emitters or a subset thereof, ensuring their access to certificates should they choose to exercise their option. If the purchase-right is not exercised within a specified time period the right expires, and the allowance is added to the auction pool. Our August 1, 2008, *Comments to the ARB on the Draft Scoping Plan* discuss this alternative in detail.