BEFORE THE CALIFORNIA ENERGY COMMISSION

AB 32 Implementation (Greenhouse Gas Emissions Reduction)	Docket No. 07-OIIP-01

OPENING COMMENTS OF THE CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES ON THE PROPOSED DECISION OF COMMISSIONER PEEVEY ON GREENHOUSE GAS REGULATORY STRATEGIES

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October 2, 2008

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

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CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES
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GREENHOUSE GAS REGULATORY STRATEGIES

The Center for Energy Efficiency and Renewable Technologies (CEERT) respectfully submits these comments on the Proposed Decision of Commissioner Peevey on the Final Opinion on Greenhouse Gas (GHG) Regulatory Strategies ("Proposed Decision"), which was mailed in this proceeding on September 12, 2008. These comments are timely filed and served pursuant to Article 14 of the Commission's Rules of Practice and Procedure and the instructions accompanying the Proposed Decision.

I.
INTRODUCTION:
OVERALL THE PROPOSED DECISION IS A POSITIVE STEP FORWARD IN THE EFFECTIVE IMPLEMENTATION OF ASSEMBLY BILL 32.

CEERT commends Commissioner Peevey for timely issuance of the Commission's broad and comprehensive recommendations to the California Air Resources Board (CARB) on measures and strategies for reducing GHG emissions in the electricity and natural gas sectors. CEERT also appreciates the Commission's consideration of CEERT's input and recommendations on these measures, which have been designed to achieve meaningful reductions consistent with the current and expected realities of energy development, generation, and procurement in California.

In particular, CEERT strongly supports the emphasis by the Proposed Decision on aggressively expanding this state's commitment to increasing energy efficiency and renewable energy. CEERT agrees with the Proposed Decision's commitment to "obtaining 33% of California's energy from renewable resources" based on the recognition that "renewable mandates play an important role in achieving aggressive renewable energy penetration, since they provide a long-term signal that can lead to market transformation of new renewable technologies and potential cost reductions."[1] In this regard, the Proposed Decision has further correctly concluded that a cap-and-trade market alone is not likely to result in enough renewable development to meet climate goals and that a 33% renewables procurement target is not only needed to meet those goals, but will also provide "important environmental and other co-benefits, including reducing other non-GHG pollutants, when sited in California."[2]

While CEERT supports these findings and the overall direction of the Proposed Decision, other discussion and findings require modification consistent with the realities of the current energy market. As discussed in further detail below, CEERT urges the Commission to modify the Proposed Decision to (1) ensure that planning for GHG emission reductions or uncertainty reflect the consistent upward trend in natural gas prices over the last ten years, (2) ensure appropriate treatment of renewable generation and renewable energy credits in a cap-and-trade program, (3) limit additional emissions from combined heat and power, and (4) allow for alternative compliance plans for coal-dependent municipal utilities.

[1] Proposed Decision, at p. 279 (Finding of Fact 5).
[2] Proposed Decision, at pp. 90, 280 (Finding of Fact 7).

II.
THE PROPOSED DECISION SHOULD BE MODIFIED TO ENSURE THAT GHG MODELING APPROPRIATELY REFLECTS THE HISTORIC AND ONGOING UPWARD TREND IN NATURAL GAS PRICES.

CEERT remains very concerned with the reliance on natural gas price forecasts that do not reflect increases in natural gas prices over the last decade. CEERT appreciates that the entire portfolio of measures recommended for the electricity sector in CARB's draft Scoping Plan, and the Proposed Decision, are not anticipated to increase electricity rates, regardless of actual fuel costs in 2020, because of both expect that overall electricity savings from energy efficiency are expected to cancel out any rate increases. However, CEERT maintains that modeling higher gas prices is important from a ratepayer perspective and in considering the cost-effectiveness of additional emissions reduction measures, particularly in the natural gas sector.

In response to advocacy from a number of parties, E3 conducted a natural gas sensitivity analysis that modeled gas prices at between $6 and $12 in $2008 in 2020 (equaling about $16/MMBTU in $2020). The impact on this increase from $8/MMBTU and $12/MMBTU in $2008 for 2020 is an increase of about 2 cents per kWh. The Proposed Decision states:

> "(F)or each gas price, the cost-effective options in the resource plan were re-evaluated. The results across this range of natural gas prices at the reference cost of resources do not significantly affect carbon reductions in the electricity sector. In fact, at current resource prices, no additional clean energy resources are cost-effective until a price of $12/MMBTU in 2008 enables some biogas to be cost-effective."[3]

CEERT appreciates E3's effort to model gas price increases to some extent, but continues to contend that a higher gas price scenario is necessary and that the call by parties for the Commission to examine higher gas prices is appropriate and reasonable. Further, regardless of what impact a high gas price scenario would have on the portfolio of measures in the draft

[3] Proposed Decision, at p. 45; emphasis added.

Scoping Plan, it is relevant to re-examine the gas price forecasting methodology used by the CPUC and CEC, especially for its consistency with historic data.

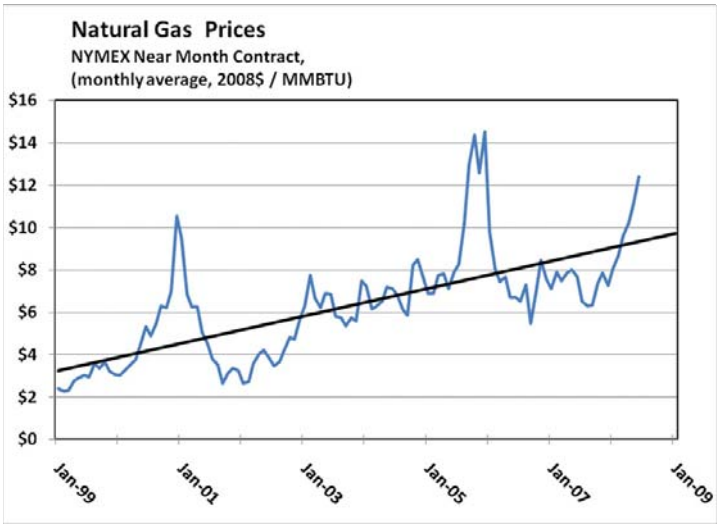
The Proposed Decision, however, largely dismisses parties' requests to model higher gas prices by suggesting that their sole objective is to "make" renewable technologies "look" more attractive.[4] It appears that the Proposed Decision has missed the point here, as well as avoided the question. The merit of this recommendation is not simply to make any particular technology "look" more or less attractive, even if this result occurs. Rather, the test of the validity of any theory of future prices is how well the theory predicted the past. The natural gas projections currently used by E3 fail to do that. The fundamental point is to effectively plan for price sensitivities based on *historical* trends in natural gas prices - a logical approach to predicting the price of anything in the future – and certainly an important consideration for ratepayers.

The Proposed Decision states that "higher gas prices increase overall utility costs, given the high degree of reliance that California utilities have on natural gas generation."[5] This conclusion is precisely the reason that higher gas prices should be modeled based on historical trends of both gas prices and volatility, especially to ensure the adoption of measures that can mitigate the effects of higher prices in the future.

If the Commission, CEC, and their consultants have concluded that the high end of gas price sensitivities will not be modeled based on *historical* trends, then the agencies should clearly state and support their reasons for not doing so, rather than making unsupported assumptions about parties' motivations. From CEERT's perspective, given the historical record of U.S. gas prices as shown in Figure 1 below, it is unreasonable for the agencies to not even *consider* that this trend will continue.

[4] Proposed Decision, at pp. 70 - 72.
[5] Proposed Decision, at p. 72.

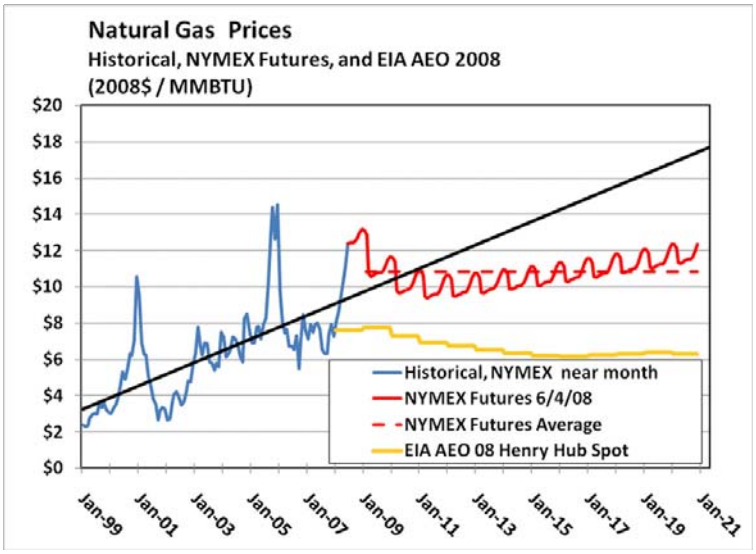
FIGURE 1



The Proposed Decision asserts that the justification for relying on NYMEX futures contract prices is that these prices represent the best source for predicting natural gas prices for 2020. CEERT notes that such prices are based on market theories used by traders. The extent to which these prices represent the market's expectation of what gas prices will be in the future remains unclear. Commodity futures prices are generally lower than current levels in the first few years forward, a phenomenon known as "backwardation." As Figure 2 below shows, the "forecast" obtained from futures prices for June 4, 2008, is approximately the same as a constant price of $10.83, the average price shown by the dashed line.[6] It is as if commodity markets almost always predict that things will be cheaper next year than they are today, a seductive theory but one which, of course, is not generally true.

[6] The futures contract prices shown in Figure 2 are those reported for June 4, 2008. Averaging futures prices reported in previous months results in a lower curve and a lower average value for the next decade.

FIGURE 2



As Figure 2 demonstrates, the market has failed to anticipate the three-fold increase in gas prices over the last decade as consistently as the EIA's and the CEC's forecasts have. Forecasts that combined futures contract prices with "fundamental" forecasts, like the MPR, also have failed to make accurate predictions of natural gas prices.

Given the importance to the economy and the environment of price signals that encourage investment choices that benefit ratepayers and reduce GHG emissions, the Commission, CEC, and CARB cannot continue to ignore in their GHG emissions reduction or uncertainty scenario analysis that gas prices have been increasing much faster than anticipated by any of the forecasting methodologies that have been used in the past. Instead, it is *reasonable to assume*, based on increases in natural gas prices over the last decade and today, that this pattern will continue.

Finally, there clearly have been forces driving up US and global gas prices dramatically in the last decade, together with prices of oil and coal that cannot be ignored and will not be changed by a "promise" of future gas supplies from the Rockies that may or may not materialize

for the benefit of California ratepayers.[7] Movements in crude oil and natural gas prices remain highly correlated, and record crude prices appear to be more or less permanent. Further, there has been no evidence that any of the "theories," which have been used or are being proposed for use in forecasting gas prices, will accurately forecast future gas prices in the future after failing to do so for a decade or more. The problems associated with using futures contract prices as a forecast of future gas prices are not due to limited or "low" liquidity, as has been suggested,[8] but rather the fact that they have not provided accurate forecasts in the past.

CEERT, therefore, recommends that, with respect to any scenario analysis conducted for purposes of planning for GHG emission reductions or uncertainty, the natural gas price forecast used in those analyses reflect the ten-year historical record and *ongoing current trend* of increasing natural gas prices. Assumptions that do not reflect this historical data and current trend or assume a reversal of this trend in the foreseeable future are not credible and should not be used. CEERT proposes modifications to the Proposed Decision's findings and conclusions in Appendix A hereto to reflect and incorporate this recommendation.

III.
THE PROPOSED DECISION SHOULD BE MODIFIED TO ENSURE CLEAR AND APPROPRIATE TREATMENT OF RENEWABLE GENERATION COMPLIANCE OBLIGATIONS AND TARGETS AND VOLUNTARY REC TRADES.

The Proposed Decision is silent on the important issue of compliance obligations of renewable generators. As CEERT has stated in prior comments filed in this proceeding, renewable generation must not be treated as "null power" and in turn required to hold allowances if that generation is sold separately from its renewable energy credit (REC). Requiring renewable generators to hold allowances for "null" power, even when commoditized GHG

[7] The CEC has already concluded that North American production will continue to be "relatively flat and to increase prices," including production from the Rockies, which, along with other US sources, "cost more to develop and raise the relative costs of natural gas across North America." (Id., at pp. 168, 174.)
[8] See, e.g., R.06-02-012 Southern California Edison Company (SCE) Post-Workshop MPR Comments, at pp. 10-11.

emissions values (as encapsulated within a REC) are sold or transferred separately from the energy, is both illogical and counterproductive. Specifically, because renewable generators are not emitting generators and would not cause emissions under the cap to suddenly increase, there is no basis to require such generators to hold allowances. Further, to do so would be contrary to the goals of AB 32, as renewable generators would be penalized unnecessarily and the cost-competitiveness of their electricity reduced.

CEERT, therefore, urges the Commission to modify the Proposed Decision to clearly state that renewable generators will not be required to hold emissions allowances for "null" power even if that power is sold separately from its commoditized greenhouse gas emissions reduction value.[9] To this end, CEERT recommends that the Proposed Decision be modified to reflect this finding and conclusion as proposed in Appendix A hereto.

Additionally, and for the same fundamental reasons, purchasers of imported electricity from renewable sources should not be required to purchase allowances associated with null power, regardless of whether or not the power is bundled with its REC and regardless of whether or not that power is generated in, and imported from, a region without a greenhouse gas emissions cap in place. CEERT, jointly with the Renewable Northwest Project (RNP) and Center for Resource Solutions (CRS), submitted comments to the Western Climate Initiative (WCI) on this topic on August 13, 2008, which are attached hereto as Appendix B. CEERT recommends that the Commission, CEC, and CARB work with all WCI Partners to establish

[9] This approach is also consistent with, and supported by, the Commission's recent D.08-08-028. As the Commission concluded in D.08-08-028 at page 24:

> "[O]nce a REC is used for RPS compliance (either before or after a GHG cap is imposed), the REC cannot also be used as a GHG emissions offset. In addition, once a GHG cap is imposed, RPS-eligible generation subject to a cap never avoids emissions. The 'avoided emissions' will continue to be included in the REC, but the avoided emissions value will be zero; the balancing GHG emissions value of the null power will therefore also be zero. Thus—assuming that ARB adopts this analysis—*our characterization of the REC will not require any RPS-eligible generation with zero GHG emissions to need allowances when delivered to the California grid*." (Emphasis added.)

consistent policies across the region in order to ensure preservation of the regional voluntary market, avoid emissions leakage, and prevent unintended disincentives to renewable electricity generators and purchasers throughout the West.

Finally, the Commission's Finding 8 on "implementation barriers" to reaching a 33% renewables procurement target is confusing as to its reference point and intent.[10] For that reason, in Appendix A, CEERT also recommends a clarifying modification to that finding to avoid it being misinterpreted as establishing a limit or condition on the 33% renewables procurement recommendation being made by the Commission to CARB.[11]

IV.
THE PROPOSED DECISION SHOULD BE MODIFIED TO LIMIT ADDITIONAL EMISSIONS OF CRITERIA AIR POLLUTANTS FROM COMBINED HEAT AND POWER.

CEERT acknowledges that the Proposed Decision does not address the regulatory treatment of emissions associated with combined heat and power's (CHP's) usable thermal output. CEERT supports the Proposed Decision's encouragement of CARB to consider treatment of these GHG emissions in a manner that is consistent with its treatment of thermal output from other sources in the commercial and industrial sectors. CEERT also intends to support CARB's work to develop standards which encourage cleaner CHP technologies as a measure of AB 32.

However, CEERT believes that the Commission should include in its present recommendations that CARB ensure that such incentives do not increase emissions of criteria air pollutants. Specifically, neither CARB, the Commission, nor the CEC should encourage the use of CHP technologies associated with increased emissions of NO_x, CO, VOCs, SO_x, and PM, in

[10] In fact, it appears that a word is missing in the finding, which, at the least, should be added to clarify its meaning. (Proposed Decision, at p. 280.)
[11] Proposed Decision, Ordering Paragraph 3, at page 288.

order to meet the goals of AB 32. To that end, CEERT recommends specific modifications to the Proposed Decision's findings, conclusions, and ordering paragraphs in Appendix A to reflect that important policy direction.

V.
ALTERNATIVE COMPLIANCE OPTIONS AND BANKING AND BORROWING

A. Alternative Compliance Options

CEERT has recommended in prior comments filed in this proceeding that load serving entities (LSEs), particularly municipal utilities with heavy coal portfolios, should be given the option, in lieu of participating in the cap-and-trade market, to submit enforceable resource procurement plans.[12] These plans should be required to demonstrate (a) reduced emissions of GHGs on a phased schedule; (b) verifiable, expanded investments in energy efficiency; (c) sustained and orderly investments in renewable resources and related transmission facilities; and (d) reduced reliance on coal generation. CEERT further believes that penalties should be assessed if these goals are not achieved and that such penalties should be set at the rate of GHG emissions allowances in the market and enforced at CARB.

Although the Commission's jurisdiction may not extend to municipal utilities, CEERT believes that it is appropriate for the Commission, especially as part of its collaboration with the CEC in making its final recommendations to CARB, to include a recommendation that such an option be considered by CARB in formulating its final Scoping Plan. To that end, CEERT proposes such a modification to the Proposed Decision in Appendix A.

B. Banking and Borrowing

The Proposed Decision's treatment of banking and borrowing allows entities to make GHG-reducing investments in advance of required action and "bank" the CO2e reductions for

[12]R.06-04-009, CEERT Comments on E3 Modeling and Staff Workpaper on Emission Reduction Measures (January 7, 2008), at p. 30.

application to future compliance years. CEERT believes that this approach is reasonable and, in turn, supports the Proposed Decision's determination to disallow any borrowing of allowances from future years for current years' compliance.

VI.
CONCLUSION

CEERT compliments Commissioner Peevey on issuing a Proposed Decision that includes a comprehensive set of recommendations to CARB for reducing GHG emissions in the electricity sector. CEERT supports the Proposed Decision's recommendations that reflect consideration of CEERT's previous comments and that appropriately focus on achieving needed increases in renewable energy and energy efficiency to reduce GHG emissions. In order to further strengthen the Proposed Decision, however, CEERT urges the Commission to adopt CEERT's recommended modifications to the Proposed Decision's findings, conclusions, and ordering paragraphs as set forth in Appendix A hereto.

Respectfully submitted,

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October 2, 2008

APPENDIX A

PROPOSED FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDERING PARAGRAPHS

CEERT recommends that the following changes be made in the Findings of Fact, Conclusions of Law, and Ordering Paragraphs of the Proposed Decision of Commissioner Peevey on the Final Opinion on Greenhouse Gas Regulatory Strategies. A page citation to the Proposed Decision is provided for each finding and conclusion for which changes are proposed. Added language is indicated by bold type; removed language is indicated by bold strike-through.

PROPOSED FINDINGS OF FACT

6. [p. 279] E3 estimates that GHG emissions reductions obtained through achievement of 33% electricity from renewables may have an average incremental cost of $133 per ton, compared to the current 20% RPS mandate. **However, E3's estimates do not adequately account for the historic and ongoing upward trend in natural gas prices.**

8. [p. 280] ~~**Significant implementation barriers exist to the continued of renewable energy in California.**~~ **A 33% renewables procurement target will serve as an incentive to overcome any implementation barriers to increasing California's reliance on renewable energy.**

15. [p. 280] We did not study the cost and rate impacts on consumers of increasing energy efficiency goals, renewable energy mandates, or levels of CHP beyond those in E3's Accelerated Policy Case. Prior to increasing these policies/mandates, the costs of additional reductions should be compared against the costs of mitigating GHG emissions across the California economy. **However, the use of CHP technologies that result in increased emissions of NO_x, CO, VOCs, SO_x, and PM, should not be encouraged as part of meeting the AB 32 goals.**

55. [p. 285] There is no basis to require renewable generators, whether located in or out of state, to hold allowances for emissions of greenhouse gases associated with null power, regardless of whether or not energy generated from the renewable facility is sold separately from its associated renewable energy credit (REC). To do so would be contrary to the goals of AB 32.

56. [p. 285] It is important for this Commission, the CEC, and CARB to anticipate high natural gas prices in the future, based on historical trends, and to commit to examining this issue and reflecting this analysis in CARB's Scoping Plan.

PROPOSED CONCLUSIONS OF LAW

16. [p. 290] We recommend that, for combined heat and power (CHP) facilities that exceed the minimum size threshold that ARB sets for other deliverers, ARB include the emissions associated with CHP-generated electricity consumed in California in the electricity sector in any multi-sector GHG emissions cap-and-trade program. **CHP technologies that result in increased emissions of NO_x, CO, VOCs, SO_x, and PM, should not be encouraged as part of meeting the AB 32 goals.**

19. [p. 287] Renewable generators, whether located in or out of state, should not be required to hold allowances for emissions of greenhouse gases associated with null power, regardless of whether or not energy generated from the renewable facility is sold separately from its associated REC.

20. [p. 287] High natural gas prices should be anticipated in the future, based on and consistent with historical trends and the Commission, CEC, and CARB should commit to examine this issue and reflect this analysis in CARB's Scoping Plan.

PROPOSED ORDERING PARAGRAPHS

2. [p. 288] We recommend that ARB work with the California Energy Commission (Energy Commission) and the Public Utilities Commission to develop approaches using a combination of direct regulatory/mandatory requirements and other potentially market-based strategies to achieve all cost-effective energy efficiency **and, in doing so, reflect the historic and current upward trend in natural gas prices**.

18. [p. 291] We recommend that ARB treat CHP operators comparable to retail providers for the portion of CHP-generated electricity that is used on-site. To the extent that allowances are distributed to retail providers, the CHP operator should receive allowances on the same basis as retail providers and should be required to sell the received allowances at auction and use the proceeds for purposes consistent with AB 32. **However, we also recommend that CHP technologies associated with increased emissions of NO_x, CO, VOCs, SO_x, and PM, should not be encouraged as part of meeting the AB 32 goals.**

21. [p. 291] We recommend that, if ARB develops a cap-and-trade program, ARB establish three-year compliance periods, ~~**and**~~ allow unlimited banking of emissions allowances and offsets, **and ensure that renewable generators are not required to hold allowances regardless of whether or not energy generated from the renewable facility is sold separately from its associated REC.**

23. [p. 291] We recommend that, in developing Scoping Plan, CARB, in cooperation with this Commission and the CEC, include analysis of the historic and current upward trend in natural gas prices.

24. [p. 291] We recommend that CARB consider giving coal-dependent load serving entities (LSEs) the option, in lieu of participating in the cap-and-trade market, to submit enforceable resource procurement plans.

APPENDIX B

Maximizing Renewable Electricity Generation for the Western Climate Initiative

August 13, 2008
Stakeholder Comments
Revised from the July 29 Hard-Copy Submittal

Submitted on Behalf of the Following Organizations:
Center for Energy Efficiency and Renewable Technologies (CEERT)
Center for Resource Solutions (CRS)
Renewable Northwest Project (RNP)

Last month, Vice President Al Gore and Texas oilman T. Boone Pickens – individuals who are decidedly on different ends of the political spectrum – both called for dramatic increases in our nation's commitment to renewable electricity generation within a decade. Vice President Gore challenged the country to commit to producing 100 percent of our electricity from renewable energy and truly carbon-free sources within 10 years. T. Boone Pickens called for a reduction in a third of the nation's oil imports within 10 years by building new wind electricity generation and better utilizing our natural gas resources.

The difference in these two pronouncements is merely that of scale – both illustrate the broad and growing support for employing renewable energy as deeply and quickly as feasible as an "early action" to address the challenge of climate change. Further development of renewable energy can also bring local benefits to communities within WCI jurisdictions by reducing demand for and consumption of fossil-based electricity, and ultimately producing environmental and public health co-benefits.

The Western Climate Initiative should take every step – from cap-and-trade design specifics to a series of complementary policies – to ensure a significant deployment of renewable electricity generation throughout the WCI region. The following recommendations provide critical elements that will help ensure that the WCI maximizes our renewable electricity resources.

Cap-and-Trade Design

Voluntary Market Retention

Over the past decade, many utilities across the west have created voluntary green power programs that allow individual residential and business customers to choose to meet some or all of their electricity needs with new, renewable resources. In addition, many voluntary renewable energy marketers across the region have offered customers of any utility to buy renewable electricity credits from them directly. Over time, hundreds of thousands of customers have chosen to vote with their pocketbooks and go beyond the renewable resources their utilities are purchasing for their overall electricity portfolios. These customers constitute the voluntary renewable energy market.

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 percent over 2006.[13] 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 renewable resources.[14] This is approximately equal to the total MWh from new renewable resources that were delivered by state RPS compliance markets in 2007.[15] In short, voluntary purchases are driving as much renewable energy as that mandated by compliance markets today. 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.[16]

To ensure that these voluntary customers continue to receive emission-reduction value from the purchase of these products, a cap-and-trade system needs to recognize and include a provision to address this market. The benefit of the voluntary renewable energy market – for individuals, companies, governments and non-profits to reduce electric sector GHG emissions – could be eliminated if voluntary market purchases of renewable electricity and RECs are not linked to the retirement of allowances or reduction of the cap.

To ensure that voluntary renewable energy purchases will result in GHG emission reductions, each WCI partner state or province should adopt an "off-the-top" rule similar to the approach adopted in the RGGI Model Rule. With this approach, providers of voluntary Renewable Energy Credits (RECs) within the capped sector (such as utilities with voluntary green pricing programs, marketers of renewable electricity credits or RECs, and individuals and organizations that generate some or all of their own electricity using onsite renewable generation technologies) will notify the Program Administrator of their projected voluntary REC sales for the upcoming year. The Program Administrators will convert the MWh sales projection to tons of avoided carbon dioxide and provisionally remove this quantity of allowances from the entire pool available under the cap.

Each year, parties providing voluntary renewable energy products would document their actual REC sales or associated generation, and the Program Administrator would retire a commensurate amount of allowances. At the end of the allowance compliance period, any difference between projected REC sales and actual REC sales would be trued up. Because the market for renewable energy is a regional and national market, each state should adopt consistent policies to avoid creating barriers or market anomalies that reduce the incentive for the development of new renewable energy facilities. There should be no cap on the amount of allowances available for the voluntary renewable market.

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[13] Center for Resource Solutions, *NewSolutions*, Spring 2008. http://www.green-e.org/news/CRS_NewsSpring2008.html.

[14] 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.

[15] 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.

[16] Bird, Lori, and Elizabeth Lokey. *Interaction of Compliance and Voluntary Renewable Energy Markets*, Golden, CO: National Renewable Energy Lab, October 2007.

Treatment of Renewable Electricity within a Cap-and-Trade Design

The design of a cap-and-trade system should recognize the GHG reduction benefits of renewable electricity without imposing regulatory compliance burdens on renewable electricity generators. Under any cap-and-trade mechanism, renewable electricity generators that bundle the electricity generation with RECs are not emitters of GHG and thus should not be considered as regulated entities under the cap. In addition, the WCI cap-and-trade system should recognize the GHG reduction benefit of renewable electricity to meet a partner state or province Renewable Portfolio Standard (RPS) requirement. Full compliance with the RPS for all partner states and provinces, including California's stated goal for a 33% by 2020 RPS, must be assumed up-front and factored into determining the appropriate level of the cap.

The following policy should apply to renewable electricity under the first jurisdictional deliverer point of regulation[17]:

- Renewable electricity generators located within the WCI jurisdiction should not be required to hold allowances associated with null power, regardless of whether or not the electricity is bundled with a REC[18].
- A load serving entity (LSE) that purchases null power generated within the capped region should not be required to hold allowances for null power.
- Entities purchasing renewable power that is bundled with RECs from non-WCI jurisdictions should not be required to hold allowances.
- In all of the above circumstances, these entities are not emitters of GHG emissions and are not regulated under a first jurisdictional deliverer point of regulation.

The interaction between RECs and allowances is more complex when considering power that is imported from non-WCI jurisdictions without its RECs or environmental attributes. The signatories of this letter offer to work with the WCI Partners ensure that renewable generators—inside and outside of WCI jurisdictions—realize sufficient incentive to continue generating electricity from renewable sources without double-counting the emissions reductions from unbundled renewable electricity imported into WCI states or provinces. One potential approach which the Partners may consider to achieve these objectives is described below:

- When renewable electricity generators located outside of the WCI jurisdiction sell electricity that is no longer bundled with its RECs into a WCI jurisdiction, the first entity regulated by a WCI partner that delivers the renewable power into the WCI jurisdiction would report "unbundled renewable generation from a non-WCI jurisdiction" to its regulator. The regulator would then require the entity to hold allowances "on paper" (i.e. the price of the allowance would be zero, but the purchaser would forego the revenue that

[17] The generator for sources within WCI jurisdictions and the first entity over which a WCI partner has a regulatory authority that delivers electricity generated outside the WCI into a WCI partner jurisdiction for consumption in that partner jurisdiction.

[18] Null power is the power generated by a renewable energy facility after the RECs (and associated environmental benefits) have been sold. As such null power is assigned the emissions value of system average power in the region in which the renewable electricity is generated for the purposes of fuel source disclosure.

would result from selling the allowances back into the market). The entity holding the allowances from imported, unbundled renewable electricity would have to retire the allowances immediately, drawing down the total allowances available under the cap.

Allowing the first delivering entity within the WCI region to hold free allowances for unbundled, imported renewable electricity levels the playing field between unbundled renewable generators within the WCI region and outside of the WCI region. Ensuring that the "on-paper" allowances are immediately retired will prevent double-counting of emissions reductions. Finally, preventing entities from reselling the allowances avoids the opportunity for windfall profits.

Value of Emissions Reductions
The signatories request that the WCI Partners clarify the intended value of emissions reductions for electricity in terms of pounds per megawatt hour. It remains unspecified whether the WCI plans to adopt a regional emissions factor for reductions, use numbers that correspond to WECC subregions, or use another methodology.

Complementary Policies

Renewable Portfolio Standard Compliance

At a minimum, all WCI partner states will provide the established level of renewable electricity (defined as solar, wind, geothermal, wave/tidal, sustainable biomass and gaseous biomass, and low-impact hydro[19]) in existing Renewable Energy Standards, also known as Renewable Portfolio Standards, including California's stated goal for a 33% by 2020 RPS. The achievement of Renewable Portfolio Standards in the WCI region will be essential to achieving WCI greenhouse gas emissions reduction goals. Based on preliminary research conducted by the Western Climate Advocates Network (WeCAN) the achievement of all U.S. WCI partner states' Renewable Portfolio Standards, coupled with a 2% reduction in electricity demand annually from 2010-2020, will result in 24% renewable electricity delivered to U.S. WCI partner states by 2020. This level of renewable electricity, combined with energy efficiency, energy conservation and other non-electricity sector renewable energy sources, will allow U.S. WCI partner states to reduce economy-wide GHG emissions to 24% below 2005 levels by 2020.

Renewable Energy Incentives

WCI partner states and provinces should ensure renewable energy is defined consistently throughout all WCI Partners as solar, wind, geothermal, wave/tidal, sustainable biomass and gaseous biomass, and low-impact hydro[20]. WCI partner states and provinces should develop

[19] Low-impact hydro is hydropower from either new generation capacity on a non-impoundment, or new generation capacity on an existing impoundment that must meet one or more of the following conditions:
a) The hydropower facility is certified by the Low Impact Hydropower Institute; or
b) The facility is a run-of-the-river hydropower facility with a total rated nameplate capacity equal to or less than 5 MW. Multiple turbines cannot be counted separately and cannot add up to more than a 5 MW nameplate capacity; or
c) The hydropower facility consists of a turbine in a pipeline or a turbine in an irrigation canal.

[20] Low-impact hydro is hydropower from either new generation capacity on a non-impoundment, or new generation capacity on an existing impoundment that must meet one or more of the following conditions:
a) The hydropower facility is certified by the Low Impact Hydropower Institute; or

policies to ensure that all sources of renewable energy are accessible and affordable to all customer classes. Examples of policies to achieve this goal are production-based incentives, rebates, tax assessment reductions and tax credits.

Loading Order

WCI partner states should consider adopting an order of priority for energy resources to guide electricity procurement activities toward low and zero greenhouse gas resources. This priority, called a "loading order", could be designed into the following tiers:

1. Partners should give first preference to all cost-effective energy efficiency and demand response over any type of generation.
2. For electric generation procurement options, renewable sources of electricity and efficient distributed generation should be given first priority.
3. Efficient central station fossil-fired generation would have the third and lowest priority. WCI Partners may plan such resources to accommodate increasing levels of first and second tier resources over time.

Emissions Performance Standard

An emissions performance standard (EPS) is a per megawatt-hour limit on greenhouse gas emissions from an electric power generating source. Some WCI partner states already have such a policy. For example, California adopted an EPS for electricity sold into California in 2006. The policy dictates that this limit be "*at a rate of emissions of greenhouse gases that is no higher than the rate of emissions of greenhouse gases for combined-cycle natural gas baseload generation*".[21] The law prohibits all load-serving entities in California from entering into new or renewed long-term contracts for 5 or more years with any source of electricity that exceeds the EPS. Effectively, this means no new long-term conventional coal commitments on behalf of California ratepayers. Such a policy could also further incent development of GHG emissions-free renewable energy or IGCC with CCS technology for coal-fired power plants. WCI partner states should consider adopting such an EPS to apply to new fossil generation that is produced within the WCI, or delivered in from other states and provinces. Adopting such a specific, GHG emissions-based procurement policy for the WCI states would help substantially to achieve the GHG cap on emissions over time.

Renewable Energy Zones and Transmission

Achieving the WCI GHG emissions reduction targets will require significant new renewable energy development throughout the West. In light of the urgency to meet GHG emissions reductions, development of these resources, including support for transmission and purchase of renewable electricity, must be coordinated between states. Many states have initiated efforts to identify and designate areas of significant renewable energy potential, also called renewable

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b) The facility is a run-of-the-river hydropower facility with a total rated nameplate capacity equal to or less than 5 MW. Multiple turbines cannot be counted separately and cannot add up to more than a 5 MW nameplate capacity; or c) The hydropower facility consists of a turbine in a pipeline or a turbine in an irrigation canal.

[21] California Public Utilities Code § 8341(d(1).

energy zones, and connect these zones to load centers with the fewest transmission lines possible, while minimizing the overall economic and environmental impact. The Western Governors Association (WGA) has begun a process to designate renewable energy zones throughout the West. Both the WCI and the WGA Renewable Energy Zone process share similar timelines, and should be linked at the appropriate time. WCI partner states and provinces should coordinate in planning and building regional transmission assets that create and improve network integration of new renewable resource areas into the regional grid. The WCI may also consider a program similar to California's Renewable Energy Transmission Initiative (RETI) in order to plan for improvements to the region's electric transmission infrastructure.

CERTIFICATE OF SERVICE

I, Sara Steck Myers, am over the age of 18 years and employed in the City and County of San Francisco. My business address is 122 - 28th Avenue, San Francisco, California 94121.

On October 2, 2008, I served the within document **COMMENTS OF THE CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES ON THE PROPOSED DECISION OF COMMISSIONER PEEVEY ON GREENHOUSE GAS REGULATORY STRATEGIES** in R.06-04-009, with electronic service, as prescribed by the Commission's Rules of Practice and Procedure, on ALJs Lakritz and TerKeurst, Commissioner Peevey's advisor Nancy Ryan, and the service list in R.06-04-009, with separate, additional service of hard copies by U.S. Mail to Assigned Commissioner Peevey and Assigned ALJs Lakritz and TerKeurst, at San Francisco, California.

Executed on October 2, 2008, at San Francisco, California.

/s/ SARA STECK MYERS
Sara Steck Myers