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VIA E-MAIL: CCWORKSHOPS@ARB.CA.GOV

Ms. Claudia Orlando
Office of Climate Change
California Air Resources Board
1001 "I" Street
P.O. Box 2815
Sacramento, CA 95812

Re: Sacramento Municipal Utility District's Comments on Accounting for Imported Electricity in a Cap and Trade Program

Dear Ms. Orlando:

Thank you for the opportunity to provide comments on the topic of including imported electricity in a cap and trade program. The Sacramento Municipal Utility District (SMUD) appreciates the long history behind the question of accounting for emissions associated with electricity imports, and more recently, the challenges with accounting for electricity flows through a patchwork of states that make up the Western Climate Initiative (WCI). We offer suggestions on both of those matters in response to your June 5th workshop.

1. Emission Factors For Unspecified Power

SMUD recommends that the ARB continue to use a default emission rate of 1100 lbs CO_2e/MWh for unspecified power, consistent with the CEC/CPUC recommendations, until the WCI develops a common set of rules to handle non-WCI imported power. SMUD has previously recommended to the WCI Electricity Subcommittee that WCI should adopt the default emission factors used by and as updated by The Climate Registry. As these default emission factors will be in use by all WCI members through The Climate Registry, SMUD does not see the need for the ARB to create a new approach for determination of default emission factors. SMUD therefore urges the ARB to use the default emission factor approach recommended by the CEC and CPUC until the WCI is ready to employ the default emission factors developed for the Electric Power Sector by The Climate Registry.

SMUD recommends a simple default emission factor structure primarily to promote transparency and viability in electricity market trading. Electricity products are more easily traded, with less risk, when the characteristics of the product are known and stable at the time of the trade. For unspecified non-WCI imports of electricity, the GHG

obligation represented by product offerings should be known, stable, and clear as trades are contemplated. Specifically, SMUD recommends that the ARB adopt a variation of Options 1 and 2 as presented at the June 5th workshop: which is to use a single default number for all power imported from non-WCI jurisdictions (Option 1) until the WCI has adopted the region-specific default factors developed by The Climate Registry (a version of Option 2). SMUD does not recommend that the ARB adopt Option 3 – an emission factor based upon the emission rate of a typical coal-fired facility.

SMUD believes that simple and stable default emission factors for unspecified imports, such as the 1100 lbs/MWh number and the average regional mix numbers proposed by The Climate Registry and used historically by the Energy Commission have market advantages in comparison to more complicated and less stable marginal approaches.

First, electricity market traders can 'bank' on these numbers more easily than if the default emission factors for unspecified power were to be recalibrated for the specific market conditions. The latter is assumption dependent and may be modeled and remodeled in dispatch models as conditions change from year to year (or month to month). Given the purpose of assigning emission factors for unspecified power – to adequately and completely account for emissions from non-WCI imports -- SMUD sees no reason to adopt the false accuracy of constantly changing and continually questioned marginal emissions derived from elaborate dispatch modeling.

Second, accounting for GHG emissions on a regional basis requires a degree of consensus among exporting and importing regions in order to avoid double-counting or competing claims about GHG signatures in each region. With a source-based system, this is not a problem, of course, but under the First Jurisdictional Deliverer (FJD) approach, the emissions associated with unspecified imports should agree with the emissions associated with unspecified exports from the exporting region to facilitate accurate 'global' accounting. SMUD believes that consensus among regions is more likely with the approach recommended than with an approach that varies with frequent changes in market conditions as these changes are reflected through revised results from rerun dispatch models.

Third, SMUD believes that market participants will benefit if they have a clear idea of what options are available for emission reductions to meet allowance allocations under a cap and trade system. If unspecified import emission factors vary significantly over time, for example as marginal conditions change and are reflected in dispatch models, market participants may unreasonably depend upon an 'accounting change' in emission factors for unspecified imports, and be faced with a need for unexpected additional allowances if the factors for unspecified imports vary dramatically. Without a degree of stability, market participants will tend to avoid this risk, which would lead to increased costs. More importantly, the overall success of meeting the cap through well-planned emission reductions could be challenged.

Answers to Specific Questions:

- ***Is there enough of a locational difference in the resource mix in non-WCI imported power to warrant multiple default emission factors? If so, how could "contract shuffling" be prevented?***

SMUD agrees that there may be sufficient differences in the resource mix of non-WCI imported power from different regions to warrant multiple default emission factors. However, as stated above, SMUD values certainty, stability, and consensus regarding these factors above complicated region-specific and timing-specific calculations of emission factors. SMUD continues to suggest that the CEC/CPUC default factor of 1100 lbs CO_2e/MWh for unspecified power, followed by factors consistent with The Climate Registry, are sufficient to provide emission accounting while facilitating robust market transactions. SMUD does not think that "contract shuffling" will be a problem if regional factors are kept simple, broad, stable, and consensus-based.

- ***Are there additional approaches to consider in setting emissions factors to calculate unspecified power?***

As described above, SMUD recommends that a simple, consensus-based approach be used to specify default emission factors for unspecified power. These may be based upon regulatory guidelines such as the 1100 lbs/MWh number, average regional mixes as contemplated by The Climate Registry, or consensus general expectations about the marginal export mix from specific regions, if consistent with other reporting systems.

- ***Should a reporting threshold apply to imported power? If so, why?***

SMUD sees no need for a reporting threshold for imported power if the ARB removes the necessity to report unspecified imports by counterparty, which is where a reporting threshold would become relevant. As SMUD has argued in related comments also filed today, there does not appear to be a GHG regulatory benefit from tracking and reporting unspecified imports by counterparty, rather than simply aggregating these imports by region. Aggregation would account for all emissions of imported power more easily and more accurately than reporting by counterparty with a reporting threshold.

- ***What criteria should be used in determining a default emission factor?***

As SMUD has argued earlier, a default emission factor for unspecified power should be:

a) known up front (prior to trades)
b) relatively stable (changing only every three years or greater)
c) consensus-based, to avoid competing GHG "counts" in different regions, and
d) simple to calculate and evaluate.

These criteria will help to facilitate both market trading of electricity products and thus market liquidity as well as promote consistency of emission accounting over time.

2. Addressing the Common Boundary vs. Individual Boundary Issues

SMUD recognizes the significant challenge that faces the ARB in wrestling with the common boundary vs. the individual boundary methods of tracking electricity imports into WCI Partner states. Within the common boundary approach itself, there are at least four variations that could potentially be implemented, as shown by the WCI boundary options paper released in January, 2009[1] ("Boundary Options Paper"). Because SMUD can see benefits to both approaches, and because we recognize the decision will ultimately depend to some extent on what happens with other states, we offer our perspectives on each of the two options.

Regarding the common boundary approach, SMUD supported Option 3 in the Boundary Options Paper, which would regulate the FJD of electricity into any WCI state that would eventually be consumed within the WCI. The regulated party would have to turn over allowances to the consuming state. Such an approach would ensure that any power traded within the WCI would have the cost of an allowance embedded within the sale price, and could be traded interchangeably with WCI-generated power. This approach would maximize efficiency and liquidity, and lower the likelihood of gaming. Nevertheless, SMUD recognizes that there would be significant enforcement challenges associated with this mechanism because of the difficulty for the consuming state to assert jurisdiction over events in distant states.

On the individual boundary approach, the principal concern that has been raised is that a purchasing party in the consuming state might not know whether they would have a compliance obligation on an energy trade until that power was delivered. Such uncertainty could chill the wholesale electricity market. However, purchasing parties can surely resolve that uncertainty through standardized contracts that require anyone selling power into California should hold an allowance, if necessary, and to transfer an allowance to the purchaser with the electricity sale. This solution would assure purchasers for California load that in return for the price paid for the power the allowance liability has been assumed by the seller. In this case, liability can be fixed regardless of how the power is scheduled, which is appropriate since the movement of energy from source to sink is more of a contractual construct than a physical reality. Nevertheless, this would lead to two kinds of traded energy: allowance-coupled and allowance-due energy. Each would likely command a different price in the marketplace, much as energy and renewable energy do now. Nonetheless, SMUD believes that markets would adapt, and large markets like the CAISO would need to adopt a common convention. The chief advantage of this approach would be to enable California to enforce this rule directly regardless of the viability or uncertainty associated with the implementation of the WCI.

[1] Scott Murtishaw, ELECTRICITY COMMITTEE DISCUSSION PAPER ON FJD BOUNDARYOPTIONS FOR REGULATINGELECTRICITY IMPORTS, Western Climate Initiative (January 12, 2009)

3. Summary

In summary, SMUD appreciates the ARB's addressing these complex issues, and we urge the ARB to strive to implement policies in these areas that allow the electricity market to continue to operate smoothly, with a minimum amount of distortion or uncertainty. For imported electricity emissions factors, while the CPUC/CEC recommended 1100 lbsCO2/MWh is adequate as a placeholder, the ARB should ultimately resolve this issue with its WCI partners and The Climate Registry, to arrive at a fair and consistent approach, and one that avoids the counterproductive use of a coal equivalent emission value. On the boundary issue, SMUD does not have a specific recommendation, but encourages the ARB to pick a solution that can ensure enforceability and pricing certainty for purchases of electricity on the wholesale market. Thank you for the opportunity to comment.

Respectfully submitted,

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cc: Corporate Files