

**BEFORE THE CALIFORNIA PUBLIC UTILITIES COMMISSION AND
THE CALIFORNIA ENERGY COMMISSION**

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)

In the Matter of 1990 Electricity Sector Baseline,
Current Entity-Specific GHG Emission Levels and
Policy Issues Related to Allowance Allocation.

Docket 07-OIIP-01

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**COMMENTS OF POWEREX CORP.
ON
MARKET ADVISORY COMMITTEE REPORT**

Dated: August 6, 2007

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MARKET ADVISORY COMMITTEE REPORT**

In accordance with the procedural schedule set forth in the Administrative Law
Judges' Ruling issued in the subject proceeding and dated July 19, 2007, Powerex Corp.
("Powerex") hereby submits its comments on the Market Advisory Committee report entitled
"Recommendations for Designing a Greenhouse Gas Cap and Trade System for California."

I. INTRODUCTION

Powerex is the marketing subsidiary of British Columbia Hydro and Power
Authority ("BC Hydro"). Powerex sells power at wholesale in the United States pursuant to
market-based rate authority granted by the Federal Energy Regulatory Commission, including
supply from competitively-priced qualifying renewable (small hydro, biomass and landfill gas)
generation facilities. As a likely "first seller" as the term is currently defined in the Market
Advisory Committee report, Powerex is pleased to offer its comments on potential designs for a
regulatory program to address greenhouse gas (GHG) emissions in the electricity sector, with
particular emphasis on the Market Advisory Committee's "first seller" approach for an electricity
sector GHG cap-and-trade system.

While Powerex will not address each of the legal, regulatory, market and operational issues associated with the first-seller approach as identified in the Administrative Law Judges' Ruling, it does note its general agreement with the comprehensive comments of the Western Power Trading Forum ("WPTF"). In these comments, Powerex will more narrowly focus on those aspects of the "first seller" approach as applied to imported power in an effort to provide the Commission with specific information from its perspective based upon longstanding experience as an out-of-state supplier of electricity to California.¹

II. COMMENTS

A. BASIC DEFINITIONS

2. For imports, who has ownership of electricity when it enters California? Is the "Purchasing/Selling Entity" (on the North American Electric Reliability Corporation (NERC) E-tag) listed at the first Point of Delivery in California the deliverer/first seller? If this is generally the case, are there any exceptions?

Response: The PSE listed at the first point of delivery into California is the first seller. A more general description of the first seller as an importer would be:

(a) For Non-CAISO imports: The first seller is the PSE associated with first transmission leg inside California on the NERC tag.

(b) For CAISO imports: The first seller is the entity that receives final schedules directly from the CAISO at an MRTU scheduling point.

3. Are there any inter-Balancing Authority imports not accounted for by E-tags? If so, describe these instances and explain how these imports can be accounted for.

¹ While not addressing every issue and question identified in the Administrative Law Judges' Ruling dated July 19, 2007, Powerex's comments will generally follow the topic outline as set forth in that ruling.

Response: To the best of Powerex's knowledge, E-tags account for almost all actual schedules, including circumstances where there are interruptions in flow from transmission cuts.

Inadvertent energy (and the return of inadvertent energy) is not tagged but is a relatively small volume.

4. What agency could/would identify importing contractual parties? Is there already a state or federal official compilation of these market participants?

Response: California balancing authorities receive all the required data to identify importing parties. WECC maintains a list of all PSE's on NERC Tags.

5. Could the deliverer/first-seller be identified by means other than the NERC E-tag? If so, please explain.

Response: The NERC tag is the ideal method for identification of the deliver/first-seller, requiring no double or duplicative counting.

6. How would a deliverer/first-seller system deal with power marketers and brokers?

Response: Power marketers take title to the physical energy when it is imported to the state in the same way that an LSE or non-jurisdictional utility would take title to the energy when it comes into the state.

8. To sum up your answers to the previous questions, provide a succinct but complete definition that identifies, for each way in which electricity could be delivered to the California grid, the entities that would be responsible for compliance with AB 32 regulations under a deliverer/first-seller approach.

Response: To the best of Powerex's knowledge, the precise tagging conventions for MRTU are still being finalized. To clarify, an import is a schedule in which a California balancing authority is the POD (Point of Delivery) on the NERC tag. With respect to a succinct but

complete definition of imports within the context of AB 32 compliance requirements, Powerex recommends the following

- (a) For Non-CAISO imports: The first seller is the PSE associated with the first transmission leg inside California on the NERC tag.
- (b) For CAISO imports: The first seller is the entity that receives final schedules directly from the CAISO at an MRTU scheduling point.

These definitions will likely correspond to the PSE listed on the NERC tag associated with the first transmission leg inside California, where CAISO is listed as the Transmission Provider (TP), or will be the last PSE appearing immediately upstream of the CAISO's market PSE in the Market Path portion of the NERC tag.

B. General Policy Issues

9. Compare and contrast the environmental integrity of a deliverer/first-seller and a load-based approach. How would a deliverer/first-seller approach address leakage? How would a deliverer/first-seller approach address contract shuffling?

Response: There is little difference between the two methods in addressing contract shuffling and leakage. The risk of contract shuffling and leakage with respect to either or both of the two methods is reduced within a regional framework.

Powerex does believe, however, that the risk of leakage increases commensurate with the extent to which any adopted GHG intensity factor for imports is less closely related to the GHG associated with the specific generation source directly attributable to any particular imported supply.

10. Would the scale of possible emissions leakage or contract shuffling differ under the deliverer/first-seller approach compared to a load-based approach?

Response: Powerex believes that the risks associated with contract shuffling are not affected by the choice between a first seller or load based approach and that the best approach to reducing shuffling is for as much as the region as possible to move toward a common regional market for tracking and management of GHGs.

11. Is there any advantage to applying the deliverer/first- seller approach to reporting only, while having the retail providers be the point of regulation (as with load-based)? Why or why not?

Response: Separating the first seller from the point of regulation clouds the price signals necessary to optimize the supply of clean energy for California or to properly price allowances for energy that is not in compliance. In a market environment where energy markets fluctuate and the allowance market fluctuates, clear price signals need to be available to both buyer and seller to ensure economic efficiency. If buyers were responsible for holding allowances, they would need to rely upon estimates to gauge the carbon emissions associated with energy imports. The scheduling of imports occurs well after pricing decisions have been made. Buyers would likely be faced with buying decisions during the daily pricing cycle well before resource scheduling choices were made.

If first sellers were responsible for compliance and reporting, their resource allocation decisions would reflect the actual pricing of energy and allowances.

18. For those entities participating in the CAISO markets, what would be the likely differential impacts of a deliverer/first-seller versus a load-based system on the CAISO's implementation of the Market Redesign and Technology Update (MRTU) system, including day-ahead and real-time markets for energy, transmission, and reserves?

Response: The differential impacts are unclear to Powerex. Both systems will still rely on NERC tags as the basis for underlying scheduling and reliability.

E. Reporting, Tracking, and Verification

26. What would be the data and administrative requirements of the deliverer/first-seller approach?

Response: The data requirements would be relevant in two areas:

(1) Scheduled Energy – NERC tags are the basis of grid reliability and currently act as a robust system for tracking detailed energy schedules without omissions or double counting. The data requirements to associate energy schedules with particular first sellers would be the NERC tag data from each balancing authority within California.

The data requirements from the NERC tag would include source control area, the consuming control area, the PSE associated with the first transmission leg within California and the actual energy schedules (a record of the energy that was actually scheduled.)

(2) GHG Intensity of Generation – the US EPA maintains a system for tracking the GHG intensity of generation, reported in its eGRID database. eGRID data could be used for the compliance obligation for generators within California. eGRID also contains control area and state level data.

Powerex markets the surplus capacity of BC Hydro's generation system and as such is not regulated or tracked by the US EPA. The near zero carbon energy associated with BC Hydro's system is distinct from the CPUC's estimate (using eGRID data) of the Northwest Power Pool, and is distinct from the other main Non-US member of the Northwest Power Pool (the Alberta Electric System Operator), which is primarily a coal-based thermal system. The GHG impact of power generation is tracked and reported to Environment Canada and would be a verifiable 3rd party source for the GHG intensity of individual control areas within Canada.

Annual intensity factors strike a compromise between accuracy (arguably they are slightly less accurate than marginal intensity factors) and transparency (they are highly transparent and vetted by the EPA on a unit specific basis.) Under the first seller approach, under a broader regional market, many of the accuracy compromises are removed when individual generators are regulated at source.

27. How would the deliverer/first-seller approach relate to the Public Utilities Commission/Energy Commission Staff reporting protocol proposal, *i.e.*, would the deliverer/first-seller approach require modifications to the Staff reporting proposal, or could it serve as an interim reporting protocol? If modifications are required, what exactly would they be?

Response: Regarding the relationship between the first seller approach and the Staff reporting protocol proposal, Powerex offers the following observations:

1. Staff reports based on the carbon intensity of import from the Pacific Northwest based on eGrid data do not take into account the substantial low carbon generation associated with British Columbia's generation system.
2. NERC tags offer a dependable method of calculating actual energy delivered to California.

Reliance on regional average intensity factors or more broadly "non-California" import factors, as recommended under the Staff reporting protocol proposal, would have the undesirable effect of placing all importers, both very low and very high carbon intensity, on the same footing. California load would be sending an inappropriate price signal to its out of state suppliers that it is indifferent to the import of near-zero carbon generation versus relatively high carbon alternatives. Reliance on broad regional factors would combine the negative effects of encouraging clean generators to opt out of the regional average (generator specific intensity factors) and allowing high carbon generators to free ride on the average.

The tools to implement an interim reporting protocol that is superior to simple reliance on broad regional factor exist in a relatively simple form, i.e. the NERC tag and the EPA's eGRID database (or a comparable alternative to those entities not tracked by EPA).

30. Who/what governs access to the purchasing/selling entity data on the NERC E-tags? What would a state agency need to do to obtain access to E-tag data?

Response: NERC and WECC have established guidelines for constructing a NERC tag and designating which parties have rights to populate fields within the NERC tag. In general, the last PSE (purchasing selling entity) is responsible for the production of the NERC tag. The underlying information embodied within the NERC tags is typically subject to confidential treatment and available only those entities that are party to the transaction.

Powerex is not sure what would be required to obtain access to E-tag (NERC tag) data, but it is worthwhile to note that only a limited number of fields within the NERC tag (vs. the entire tag,) would be relevant to the calculation of a GHG liability associated with imports.

31. What role would the CAISO play, if any, in the implementation and administration of a deliverer/first-seller program? What role would other control area operators or balancing authorities play?

Response: The CASIO would play the same role as other balancing authorities within California. For schedules that were consumed within their control areas, they would be responsible for pairing the PSE on the first transmission leg inside California with the source control area associated with the actual energy volume that was imported.

F. GHG Emissions Allowance Allocation Issues

32. Would implementation of a deliverer/first-seller approach necessitate auctioning of GHG emissions allowances? Why or why not?

Response: The implementation of a first seller model would not necessitate auctioning of GHG emission allowances, but a 100% auction would reduce transactional friction for importers bringing energy into California.

H. Relationship to a Multi-State System Such as the Western Regional Climate Action Initiative

36. Compare and contrast the ability of a deliverer/first-seller and a load-based approach to avoid double-counting of emissions between states.

Response: Both approaches manage the problem of double counting equally well if all regions sign on to the same methodology. If different methodologies are adopted within the region there is a high likelihood for double counting.

37. How should exports from California be handled under a deliverer/first-seller approach? Would the proper treatment of exports depend on whether the receiving state has a cap-and-trade system? If so, how?

Response: The GHGs associated with exports from California would be regulated at source under a first seller approach. Proper treatment of exports depends on whether or not the importing state has a system that tracks and regulates GHGs in the power sector, from imports, independent of whether or not the state has a cap-and-trade or some other system. The importing state would need to recognize the California export as “compliant” in order to avoid double counting.

III. CONCLUSION

Powerex appreciates the opportunity to provide comments to the CPUC and CEC and looks forward to future participation in the subject proceeding with respect to issues identified in the ALJs; Ruling, including flexible compliance and allocation of GHG emission allowances.

Respectfully submitted this 6th day of August, 2007 at San Francisco, California.

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CERTIFICATE OF SERVICE

I, Lisa Vieland, certify that I have on this 6th day of August 2007
caused a copy of the foregoing

COMMENTS OF POWEREX CORP. ON MARKET ADVISORY COMMITTEE REPORT

to be served on all known parties to R.06-04-009 listed on the most recently
updated service list available on the California Public Utilities Commission
website and in Docket 07-OIIP-01 at the California Energy Commission, via email
to those listed with email and via U.S. mail to those without email service. I also
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I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed this 6th day of August 2007 at San Francisco, California.

/s/ Lisa Vieland
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