

GENERAL SESSION MINUTES
California ISO (CAISO)
MARKET SURVEILLANCE COMMITTEE MEETING
June 8, 2007
Held at: Offices of the Air Resources Board
Located at the Cal EPA Building,
1001 I Street,
Sacramento, CA 95814

Chairman Frank Wolak officially called the meeting to order at approximately 1:00 p.m. with all committee members in attendance in person.

COMMITTEE MEMBERS ATTENDING

Frank Wolak
Jim Bushnell
Ben Hobbs

PUBLIC COMMENT

Public comment was not solicited at the beginning of the meeting. Members of the public were invited to comment on issues pertaining to the scheduled presentations at the conclusion of the presentations.

GENERAL DISCUSSION ITEMS

Discussion items for this meeting consisted of presentations by several speakers

1. **Mike Scheible, California Air Resources Board (CARB).** Mr. Scheible provided an overview of AB 32, which requires the CARB to establish a 1990 baseline for Greenhouse Gas (GHG) emissions for the California economy, and establish GHG limitations. He outlined challenges faced by California in meeting AB 32 goals, and CARB's role in achieving the goals. For the electricity sector, Scheible discussed activities in the California Public Utilities Commission (CPUC) GHG proceeding and by the Market Advisory Committee (MAC), which has been providing advisory input for CARB's regulatory process under AB32.

Schiebe then discussed several approaches to placing a cap on the electricity sector. Under all of the approaches, an emissions limit would be set and an amount of allowances would be issued equal to the amount of emissions allowed under the cap.

- A load-based cap—would regulate LSEs (more precisely, all retail service providers), requiring them to have an amount of allowances at least equal

to the total carbon content of electricity these entities purchased to serve their load.

- A source based cap, would regulate generation units to ensure that individual generation unit-level emissions did not exceed the allowances that the generation unit owner held; and
- First Seller approach—this approach has been proposed by the MAC.

2. **Nancy Ryan, CPUC, Advisor to Commissioner Peevey.** Ms. Ryan discussed the goals of the AB 32 implementation process. The primary goal is to achieve tangible reductions in GHG emissions. She noted that the CPUC had long been focusing on the load-based approach, but that the CPUC was considering alternative approaches such as the first-seller approach recommended by the MAC.

3. **Audrey Chang, Natural Resources Defense Counsel (NRDC).** Ms. Chang’s presentation compared the load-based approach to the first-seller approach. She noted that the first seller places the regulatory compliance burden on the first seller of electricity in California. For in-state generation, the first seller is the generator, making the approach essentially a source-based approach for in state generation. For imports, the first seller is the entity that imports the power into California. Chang argued that the load-based approach would provide greater opportunities for energy efficiency to compete to displace new sources of supply than the first-seller approach.

Following these initial presentations, MSC members made several comments regarding the potential for contract reshuffling. MSC members noted that it is impossible to track the flow of electrons to determine the generation source for load-serving entity (LSE) purchases. With the many available clean generation sources in the Western Electricity Coordinating Council (WECC) it is possible for California LSEs to purchase more low carbon generation with no tangible change in GHG emissions for the WECC region. Several MSC members stated that unless California’s GHG policy changes how generation units in the rest of the WECC operate, there would be no net impact on GHGs from applying California’s GHG emissions policy to imports.

4. **Ray Williams, Pacific Gas & Electric.** Mr. Williams contrasted a load based cap and trade mechanism with a first-seller approach. Williams argued that the first-seller approach would result in more efficient dispatch of generation units in California because the cost of GHG emissions would be included in the variable cost of each generation unit located in the state. He also outlined major compliance issues associated with the first-seller approach, arguing that the issues could be handled through pre-existing regulatory processes.

5. **Larry Goulder, Stanford University, MAC member.** Dr. Goulder discussed the recommendations in the MAC report, and the reasons that the MAC preferred a first-seller approach to a load-based approach. Goulder also addressed contract shuffling, suggesting that one approach to prevent this would be to assign a western-wide average carbon content factor to all electricity imported to California

Stakeholders were provided an opportunity to comment following these presentations. Dr. Severin Borenstein of the UC Energy Institute (UCEI) questioned the logic underlying the claim that a load-based system would provide greater opportunities for energy efficiency to displace new sources of supply, and argued that a source-based system would provide greater energy efficiency investments.

Next, there was a discussion among stakeholders as to what entities might be considered a first-seller under such an approach. The discussion illustrated that there were differing opinions as to what entities would be characterized as a first seller of power imported into California. This led to a discussion of what information is contained on a WECC/NERC e-tag.

6. **Jeff Nelson, Southern California Edison.** Mr. Nelson's presentation discussed challenges in implementing a load-based cap and trade system.
 - He indicated that, under a source-based system, a seller bidding into the California market would earn a market price that reflected the emissions cost of the marginal generation unit in California, and that the seller would demand this same price when entering into a bilateral contract.
 - Nelson contrasted a load-based system, where the California market would not reflect the emissions cost in bid prices. However, when an LSE entered a bilateral contract with a generator, the generator would add the GHG regulation component. An LSE would be willing to pay a higher price for cleaner power (obtained by contract) and would require a discount for dirtier power. Nelson argued that this would result in cleaner power being sold to LSEs through long term contracts, while dirtier power would tend to be sold in the short-term market. Nelson contended that this divergence could also cause operational problems for the CAISO.
7. **Clare Breidenich, consultant for Western Power Trading Forum (WPTF).** Ms. Breidenich discussed a tradable emissions attribute certificates (TEACs) market. Under the system she described, generators would receive allowances based upon their emissions output, and LSEs would be required to obtain allowances and surrender allowances equal to the emissions of the energy they purchase for their customers. Green generators would receive green energy certificates for each MWh of green energy they produced, and these certificates would operate like a credit, to lower the amount of allocations that the LSE would need. Ms. Breidenich's proposal provided that the TEACs could only be traded

within the electricity sector, while emission allowances could be traded among all sectors.

8. **Ben Hobbs, Johns Hopkins University, MSC Member.** Dr Hobbs's presentation clarified features of the WPTF proposal and the design of the GHG allowance allocation process. Hobbs compared the TEAC mechanism to a source-based mechanism.

These presentations were followed by questions from stakeholders and MSC members regarding implementation details of the TEAC mechanism.

Chairman Wolak adjourned the public portion of the MSC meeting at approximately 5:00 pm.