

**Comments of the Western Power Trading Forum  
To the California Air Resources Board  
On Amendments to the Regulation  
for the Mandatory Reporting of Greenhouse Gas Emissions  
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## ***Introduction***

The Western Power Trading Forum<sup>1</sup> (WPTF) appreciates the opportunity to provide input to the California Air Resources Board (ARB) on its consideration of the Proposed Revised Regulation for Mandatory Reporting Greenhouse Gas (GHG) Emissions (PRR). Our comments today address the reporting requirements for electricity deliverers. In particular, we address our comments to two issues: the selection of an appropriate ‘default’ emission rate for unspecified power imports and the mechanism for allowing imported power to claim a facility-specific emission rate.

The treatment of imported power in California’s cap and trade system is of particular importance, because over 50% of emissions due to electricity consumption are associated with imported electricity. The effectiveness of California’s cap and trade program in reducing emissions will depend in large part on the rules for attributing emissions to these imports. WPTF believes that the rules for attributing emissions to imports should be designed to minimize emission leakage, provide incentives for actual GHG reductions, ensure compatibility with energy markets - in particular economic-dispatch, and treat in-state and out-of-state resources equitably. These objectives can only be achieved by application of a high default emission rate for unspecified imports, and establishment of a reliable mechanism to allow any import with an emission rate lower than the default to claim a facility-specific rate.

There are several problems with the approach taken in the PRR, whereby electricity imports would be attributed a moderate default emission rate, and low-emission imports would be able to claim a facility specific emission rate only through a contract (‘contract-path’) :

- The default emission factors is too low. This will disadvantage California generators with an emission rate higher than the default, and will result in emission leakage by encouraging increased imports of high-emission power into California.

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<sup>1</sup> WPTF is a diverse organization comprising power marketers, generators, investment banks, public utilities and energy service providers, whose common interest is the development of competitive electricity markets in the West. WPTF has over 60 members participating in power markets within the WCI member states and provinces, as well as other markets across the United States.

- A contract-path approach to specifying imports will create opportunities for ‘contract-shuffling’ because it does not ensure that the facility specified actually produced the imported power.
- A contract path approach will prevent specification of power imported into markets operated by the California Independent System Operator (CAISO). Over time, this will bifurcate the wholesale power market, as clean imports move to specified contracts and dirtier imports move to the markets.

WPTF proposes an alternative mechanism for assigning emissions to electricity imports, based on the approach used to track renewable energy generation that would avoid these problems. We therefore request the Board to direct ARB staff to develop this tracking mechanism and make the technical modifications to the regulation necessary to accommodate this mechanism through a 15-day process during the next year.

#### Level of the Default Emission Rate for Unspecified Imports

The level of the default emission rate for unspecified power imports will affect the competitiveness of in-state generators and determine the extent of emission leakage. If California sets an emission rate that is too low, any in-state generators with a higher emission rate will be perpetually disadvantaged. This is because the use of a default emission rate caps the carbon cost for imports, but not for in-state resources. The operating costs of in-state generators will increase by an amount proportional to their *true* emissions (multiplied by the allowance price), while the operating costs of imports will increase only by an amount proportional to the default emission rate.

While natural gas and allowance prices would ultimately determine the extent to which the default emission rate changes operating costs for similarly situated in-state and out-of-state resources, and whether this difference is large enough to alter dispatch order, the use of a default emission rate will *always* disadvantage in-state resources with a higher-emission rate relative to similarly situated out-of-state resources.

To address this problem, WPTF recommends that the default emission rate be set at 1100 lbs CO<sub>2</sub> equivalent per MWh, because this represents the emission rate of the higher heat-rate gas facilities that are likely to determine market-clearing prices in California. This level

of default is supported by analysis conducted by E3 for the Western Climate Initiative<sup>2</sup>, which showed that there would be *substantial opportunities and incentives for emission leakage from gas units if a default emission rate less than this level is adopted.*

The use of a high default emission rate will not disadvantage out-of-state resources provided that an appropriate mechanism is available to allow any resource with an emission rate that is lower than the default to claim a facility-specific emission rate. The remainder of our comments addresses the mechanism for assigning facility-specific emission rates.

### Contract Path Approach

Under the PRR, only out-of-state resources that are owned by, or under contract to, an electricity deliverer would be eligible to claim a facility specific emission rate. While WPTF supports the use of contracts to assign high-emission imports to retail providers, we oppose the use of contracts as the means to claim facility specific emission rates for low-emission imports for several reasons.

First, the environmental integrity of a system that uses contracts and settlement data to assign emissions to imports would be compromised by contract shuffling, because contracts do not drive dispatch of generation. Rather, factors such as resource availability, transmission constraints and, most importantly, price determine which generators will actually dispatch to meet a contractual obligation. Attributing emissions based on contract terms may give the appearance of emission reductions, without necessarily doing so. This problem has been well-recognized in the earlier California Public Utilities Commission's proceeding for a GHG trading system.

Second, because the contract path approach would not allow all low-emission out-of-state resources to reflect their actual emissions in electricity bids, it has the potential to displace low-emission imports in favor of higher emission in-state generation. The displacement of low-emission imports means that power from another resource will be needed to serve California load. Because of economic dispatch, this power will be sourced from a less- efficient resource that is higher up the supply curve. The higher operating costs and additional carbon

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<sup>2</sup> <http://www.westernclimateinitiative.org/component/repository/Electricity-Team-Documents/Oct-16-2008-Technical-Advisory-Group-Meeting-Materials/E3-Leakage-Presentation/>

allowances needed by this resource will be reflected in a higher electricity market price, higher allowance prices and thus higher rates for California electricity consumers. Displacement of low-emission imports could also reduce liquidity in the markets operated by the California Independent System Operator (CAISO), reducing efficiency and system reliability and ultimately resulting in higher costs for California consumers.<sup>3</sup>

#### An alternative mechanism for specification of imports

Instead of assigning facility-specific emission rates through contracts, California should develop an alternative mechanism that relies on generator output meter data and electricity delivery schedules. Under this approach, non-WCI fossil generators that wish to claim a facility-specific emission rate for power imports would be required to provide metered generation data for the unit. Delivery of the power to California by the operator of that unit would be tracked through electronic tags required by the North American Electricity Reliability Corporation (NERC e-tags), in much the same way that the California Energy Commission currently verifies delivery of power for the Renewable Portfolio Standard. The matching of generator output for a unit for a given period of time plus a NERC e-tag showing scheduled delivery into California at the same time would enable any entity to claim the facility-specific emission rate and reflect its actual emissions in bid prices.

We see several advantages to this approach. First, it would reduce California's carbon footprint by incenting imports from cleaner incremental generation outside the state.<sup>4</sup> Second,

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<sup>3</sup> These distortions were noted previously in the CPUC's GHG proceeding. See "Opinion on 'Load-Based and Source-Based Trading of Carbon Dioxide in California,'" Frank A. Wolak, et al., Market Surveillance Committee of the California Independent System Operator, November 27, 2007.

<sup>4</sup> Some have noted that clean emission imports to California will not change emissions in the greater region of the Western Electricity Coordinating Council (WECC) because higher emission generation will then be dispatched to serve native load. WPTF agrees that this will occur, but this outcome is not due to the approach used to attribute emissions to imports, but is rather a direct consequence of the fact that the cap and trade program will *only apply to a relatively small portion of the WECC electricity market*. In any cap and trade program, regardless of the geographic scope, the imposition of a carbon price will change the economics of power generation - the profitability of low-emission resources will increase relative to high-emission resources. But in a cap and trade system like California's with limited geographic scope, the cap and trade system will essentially draw low-emission power into California, and leave higher emission resources to serve native load outside of California. This would occur regardless of whether emissions are specified through our proposed approach or through a contract-path approach. But unlike a contract-path approach, our proposed approach would ensure that the specified resource actually generated the power serving California load.

it ensures equitable treatment of out-of-state resources by providing imports the ability to claim a facility-specific emission rate and reflect that emission rate in CAISO bids. It thus facilitates economic impact and avoids the distortions discussed above. Finally, because the specification requires both metered output and scheduled delivery, it would ensure that the specified units actually generated the imported power.

To enable this approach, the regulation should establish the following conditions for eligibility to claim a specified emission rate for imports into California:

- A generator identification number must be included on NERC tags for scheduled delivery of power from that unit into California;
- The generator must have a unit-specific revenue meter installed;
- Generation data for that unit with an hourly resolution must be maintained and submitted; and
- Generator output must coincide with the period(s) of delivery into California as shown on the NERC tag(s).

WPTF also recommends that ARB staff develop tools to facilitate the reporting and analysis of data necessary to verify claims of specified-power imports. In particular ARB should:

- Establish an agreement with the Western Electricity Coordinating Council Interchange for the provision of schedule data for all power imported into California. This would enable ARB to identify all California imports and verify scheduled delivery for claims of specified power;
- Explore whether the California Independent System Operator, other WECC balancing authorities and/or other WREGIS "Qualified Reporting Entities" could provide data for independent verification of revenue meter data for resources within their respective jurisdictions;
- Contract with a company that provides energy reporting and analysis software to develop a standard format and software for reporting of generation data with hourly granularity. This software could also assist in matching generation data with NERC tags (using generator IDs).

WPTF looks forward to working with ARB staff to further develop this mechanism over the coming year.