Comments of the Western Power Trading Forum to
The California Air Resource Board on
Treatment of Imported Electricity
Under the Cap and Trade System
6/26/09

Clare Breidenich
WPTF GHG
Consultant
Email:
clare@wptf.org

The Western Power Trading Forum[1] (WPTF) appreciates the opportunity to provide input to the Air Resources Board (ARB) regarding the treatment of imported electricity within California's cap and trade system and the broader Western Climate Initiative (WCI). Our comments below address a number of topics discussed in the June 5, 2009 workshop on this subject, including a common versus individual boundary approach for implementing First Jurisdictional Deliverer, the identification of entities with a compliance obligation for imported power and rules for attributing emissions for imported electricity. We look forward to providing further input as ARB's work progresses.

Individual versus Common Boundary Approach

The WCI recently held a series of technical workshops on the treatment of imported electricity and explicitly considered the individual and common boundary options for implementing the FJD approach. The consensus of participants in those workshops was that the individual boundary approach is problematic due to the fact that greenhouse gas (GHG) allowance liability can not be unequivocally determined at the time that power is first sold into a WCI jurisdiction. This is due to the fact that liability will be determined based on the actual scheduling of power for delivery to its ultimate customer rather than its first sale into the WCI. Since final scheduling of power for delivery does not occur until the day or hours before power is needed, it is not possible to determine who has liability for imported power at the time of prior sale.

Power market participants may develop mechanisms to manage carbon liability risk under an individual boundary approach, such as contracts that clearly establish financial liability for carbon regardless of where the compliance liability falls or separate power products. While these mechanisms may reduce the negative effects of an individual boundary approach on market liquidity and efficiency, they will none-the-less

[1] 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.

impose additional administrative costs – costs that will ultimately be borne by consumers. For these reasons, WPTF strongly encourages the adoption of a common boundary approach.

Identifying entities with a compliance obligation and specified power

ARB staff listed three alternatives for identifying entities responsible for importing power and attributing emissions to specified sources: NERC[2] e-tags, contracts and settlement data, and GHG emissions attributes. WPTF recommends that these elements should not be considered mutually exclusive options, but rather as three necessary and linked components of an effective tracking system. NERC e-tags should be the principle means of determining the quantity of power imported and the entity responsible for those imports (the FJD), while contracts and GHG emission attributes should be used to identify specified power imports, which would be attributed facility-specific emission rates.

Under this approach, retail providers and power marketers report required information on electricity imports to ARB. The quantity of power imported and the entity responsible would be verified by comparing the self-reported information to NERC e-tag schedules. California and the other WCI states should explore options to access this schedule data directly from the Western Electricity Coordinating Council, which already tracks power transfers via its Interchange Tool.

Reporting of contract information would be used to identify power that is sourced from a resource that is under a long-term contract to a California/WCI load serving entity (LSE), or in which the LSE has an ownership share. Power imported under the terms of these contracts should be attributed the emission rate of that resource to prevent contract-shuffling. The implementation of this approach requires pinning down some details, such as defining a long-term contract, and WPTF would be willing to provide additional input on those matters at a later date.

Tracking of GHG emission attributes by the Western Region Electricity Generation Information System (WREGIS) would enable non-WCI generators that are not subject to a long-term contract with an in-region LSE to claim a facility-specific emission rate. The

[2] National Electricity Reliability Council

combination of WREGIS certified output for a resource plus a NERC e-tag showing scheduled delivery to the WCI would enable an LSE or marketer to claim the facility-specific emission rate for that power.

We see several advantages to tracking GHG attributes. First, it would reduce the WCI's carbon footprint by incenting imports from cleaner incremental generation outside the WCI. Under this approach, even power that is sold into the California Independent System Operator (CAISO) markets would be able to self specify. This would enable low-emission generators to reflect their lower carbon costs in their bid prices, and enable the CAISO to provide efficient, environmental dispatch.

Second, tracking of GHG emission attributes ensures compatibility of the cap and trade system with renewable energy markets.3 Because GHG emissions are tracked separately from renewable energy credits (RECs), the zero-emission attribute of a renewable resource can be transferred and claimed with the power, or with a renewable REC or independently. In the event that the zero-emission attribute is transferred with the REC or independently, then the 'null power' would be attributed a default emission rate, and the zero-emission attribute can be used to 're-specify' other non-specified imports that would otherwise be attributed the appropriate default emission rate. This flexibility maximizes the opportunities for renewable resources to capture the value of their zero emission power.

Modifying WREGIS to enable tracking of emission attributes should be relatively simple and low cost: only the addition of a single field (the emission attribute) would be required, plus additional administrative and server capacity to accommodate non-WCI fossil generators that wish to register would be needed. We expect this number would be relatively small, since only fossil generators with an emission rate lower than the default emission rate (see below) will have an incentive to register. Tracking of GHG emissions attributes would not require source to sink accounting of electricity.

---

[3] Contrary to the assertion of ARB staff, we do not consider the relationship of the cap and trade system and renewable energy markets to have been resolved by the recent CPUC/CEC Decision on the Definition and Attributes of Renewable Energy Credits (RECs). That Decision focused on the narrow issue of avoided emissions embodied in a REC, and specifically whether the avoided emission should be eligible for use as an offset credit in the cap and trade system.

Attributing emissions to unspecified power

WPTF also wishes to comment on the appropriate emission rate to be attributed to imported power that is not specified through long-term contract or tracking of GHG emission attributes. WPTF believes that the assignment of different emission factors for different power pools within the same interconnection (e.g. the WECC) provides opportunities and incentives to enter transactions that undermine the efficient operation of electricity markets and which will reduce the accuracy of these emission rates over time. For instance, use of different default emission rates for the Northwest and Southwest Power Pools within the WECC will encourage the scheduling of power for delivery through the Northwest interties, further congesting these lines. Although daily and seasonal patterns of imports and load conditions would constrain this practice, GHG regulations should not provide such an incentive.

Further, the only basis by which to differentiate the source region of imported power is a NERC tag. Without a mechanism to track the actual output of all units in a region, there would no way to prevent multiple claims to the same generation, or claims that exceed generation output. Thus, the use of different default emission rates for regions or sub-regions is not likely to greatly improve the accuracy of accounting for imported emissions.

Additionally, it is not clear that regional emission rates are that different. Analyses conducted for the CPUC/CEC GHG Proceeding and for the WCI Electricity sub-committee suggests that regional marginal residual emission rates in the WECC are quite similar and support the use of a single system-wide default. For instance in the CPUC/CEC proceeding, the states of Oregon and Washington indicated that they consider the residual emission factor for the Northwest power pool to be 1062 lbs/MWH. This is quite close to the 1075 lbs/MWH that the CEC calculates for the southwest region. A similar conclusion was also supported by a study that E3 prepared for the WCI, which determined that available coal generation is already running at capacity to serve existing base-load requirements. As a result, that WCI analysis concluded that marginal generation throughout the WECC is predominantly gas.

Given these considerations, and the fact that we expect the California and WCI cap and trade systems to be short-lived in light of federal developments, WPTF supports

use of a single default emission rate for unspecified imports within each interconnection (e.g. the WECC), based on analysis of the averaged marginal emission rate of residual power in that interconnection. We believe that a single default rate plus a modest expansion of WREGIS to provide non-WCI generators the opportunity to self-specify provides the most reasonable compromise between accuracy and simplicity. However, ARB should implement the proposed restrictions on contract-shuffling to ensure that these coal resources are attributed as specified imports. Because implementation of the cap and trade program will likely change the mix of residual power over time as low-emission generators self-specify and FJDs dispose of high-emission assets and contracts, WPTF recommends that the default emission rates be monitored and periodically updated.

Application of emission thresholds to imported power

ARB staff also indicated that they are considering whether to apply an emission threshold for imports of electricity. WPTF considers that the primary purpose of applying an emission threshold is to exclude small sources of emissions from regulation, and thus avoid overburdening small facilities. While an emission threshold would achieve this goal for generators, it fails for imported power because it is *not* a reasonable proxy for facility size.

For generators, an emission threshold would essentially operate as an emissions capacity threshold – generators that under normal operations would be expected to emit 25,000 tons or more of emissions per year would be regulated under the WCI cap. (Presumably the determination of regulated entities would be made in advance based on historic emission levels.) The threshold would operate much differently when applied to power imports. In the case of specified power, the threshold would be set based on *imported* emissions, rather than total facility emissions. Further, for unspecified power, the threshold would be implemented by applying a default emission rate multiplied by the quantity of power. Thus, for imported power, there is no link between the emissions threshold and the emissions capacity or size of the facility providing that power.

Elimination of the threshold to imports will not disadvantage small facilities because it is highly unlikely that generators that fall below the 25,000 metric ton threshold will be importing power into the California or the WCI. Resources of this scale typically produce power for on-site consumption, not delivery to the grid. For this reason, WPTF recommends that the emission threshold not be applied for imported power. Instead, emissions from all power imports should be regulated under the cap.