

## Potential Impacts of the Clean Power Plan on Power Markets

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Wholesale power markets operate regionally. Thus, regional rather than state-by-state approaches for the implementation of the Clean Power Plan would be more consistent and less disruptive to the operation of power markets. In this context it is useful to review the impact of existing implementation of regulations aimed at reducing Greenhouse Gas (GHG) emissions.

There are currently two GHG emission reduction programs targeting the electricity sector (1) the Regional Greenhouse Gas Initiative (RGGI)<sup>1</sup> in the Mid-Atlantic and Northeast states and (2) AB32<sup>2</sup> in California. They both involve cap and trade programs<sup>3</sup>, but have differences in terms of their impact on power markets. While both programs impose an obligation on electric power generators within their jurisdiction to purchase a GHG allowance for each metric ton of GHG emissions, the California program also imposes this obligation on electricity imports into California. The Mandatory Reporting Regulation (MRR) and the Cap and Trade Regulation developed by the California Air Resources Board (ARB) address the details of GHG emission assignment to electricity imports.

One result of the above ARB regulations has been that power imports into California now involve two distinct types of transactions (1) *unspecified power* imports that are assigned a default emissions factor and (2) *specified power* imports that are assigned an emissions factor for a specified resource. Specified power transactions must satisfy certain conditions such as demonstration of direct delivery of power from the specified resource as reflected by NERC e-Tags and a contract that establishes that the transaction was intended for transacting specified power. The introduction of “specified power” transactions with a specific emission profile required the development of additional terms and conditions to supplement language in existing master agreements such as the WSPP Agreement<sup>4</sup> used to trade physical power in bilateral markets.

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<sup>1</sup> RGGI participating states include Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island and Vermont. RGGI was the first mandatory cap and trade program to limit CO<sub>2</sub> emissions in the United States and has been in effect since 2009. Further information on RGGI can be found at [www.rggi.org](http://www.rggi.org)

<sup>2</sup> Assembly Bill (AB) 32 or the California Global Warming Solutions Act of 2006 requires California to reduce its GHG emissions to 1990 levels by 2020. One element of AB32 is the Cap and Trade program that implements a GHG cap that declines over time. This program took effect on Jan 1, 2013.

<sup>3</sup> In the context of the Clean Power Plan, both these programs would fall under a “mass based implementation” rather than a “rate based implementation.”

<sup>4</sup> The WSPP Exhibit C-SS is an example of such an effort and addresses the calculation of damages when delivery cannot be made from the specified resource or if the specified emissions factor changes. Bilateral trading of physical power in RGGI states has not required similar changes.

Another issue that can arise in the assignment of GHG emission obligations to power imports is how the rules for such assignment might intersect with existing rules in wholesale power markets. Examples of such questions that came up in the California program include (1) whether or not an entity that has title to physical power must always be listed as the Purchasing Selling Entity (PSE) on NERC e-Tags that serve as the practical metric for assigning GHG emissions to imports, and (2) if not, whether a waiver from such requirement establishes a precedent for others. Prior to the start of the program there were also concerns related to potential “seams issues” for energy importers that were highlighted in a letter written by Commissioner Moeller<sup>5</sup> and subsequently addressed by ARB<sup>6</sup>.

The assignment of GHG emissions to electricity imports also has significance for the markets operated by Regional Transmission Organizations (RTOs). The recent implementation of the Energy Imbalance Market (EIM) by the California ISO (CAISO) offers an example where the CAISO had to address how it treats resources within the EIM footprint that are not otherwise subject to California’s GHG regulations but become subject to it if their output is deemed to flow to California as an import<sup>7</sup>. While PJM also spans RGGI and non-RGGI states, the absence of a similar assignment of GHG obligations to imports into PJM’s RGGI states<sup>8</sup> has not required similar complexity. Both the CAISO and PJM markets allow for resources subject to GHG compliance obligations to internalize the cost of such compliance in their offer prices. The ability to reflect compliance costs in transparent market prices as opposed to uplift charges may be another consideration in the evaluation of alternative implementation plans.

While regional implementation approaches are more compatible with power markets, it is likely that there will be a period of uncertainty during which state implementation plans are finalized. Regulatory uncertainty with binary outcomes (i.e., is a transaction subject to GHG emission obligations or not) can be a barrier for long term contracting and liquidity in forward markets<sup>9</sup>.

The Commission’s engagement in details where appropriate can be helpful in addressing issues as they arise during the development of different implementation approaches to the Clean Power Plan.

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<sup>5</sup> See letter by FERC Commissioner Moeller addressing concerns on attestations regarding “resource shuffling”, August 6, 2012 and available at <http://www.ferc.gov/about/com-mem/moeller/moeller-08-06-12.pdf>

<sup>6</sup> See letter by Mary Nichols, Chairman, Air Resources Board to FERC Commissioner Moeller suspending “resource shuffling” attestations for a period of 18 months, August 16, 2012 and available at <http://www.arb.ca.gov/newsrel/images/2012/response.pdf>

<sup>7</sup> See, Energy Imbalance Market, Draft Final Proposal, September 23, 2013, Section 3.9 <http://www.caiso.com/Documents/EnergyImbalanceMarket-DraftFinalProposal092313.pdf>

<sup>8</sup> Maryland and Delaware are currently the two RGGI states within PJM.

<sup>9</sup> During the development of the California cap and trade program, initial implementation was planned for Jan 1, 2012 but ultimately delayed till Jan 1, 2013.

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