

Comments on the October 13, 2016 Regional Integration—California Greenhouse Gas Compliance Initiative technical workshop

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Calpine offers the following limited comments on the proposed approaches to “secondary dispatch” that were presented at the October 13, 2016 technical workshop.

Generally, Calpine observes that the type of leakage reflected in secondary dispatch is endemic to a regulatory regime in which California regulates carbon emissions, including emissions associated with imported energy, while surrounding states do not regulate carbon emissions even within their own footprints. This regulatory regime provides incentives to ascribe comparatively clean external resources to California loads. EIM effects this allocation efficiently and transparently, potentially leading to secondary dispatch. (As the EIM was being developed, Bill Hogan described EIM’s potential for “efficient resource shuffling,” i.e. leakage¹) To the extent that the CAISO tries to limit secondary dispatch within EIM, the incentive and ability to ascribe comparatively clean external resources to California loads would not go away. Instead, market participants likely would seek to effect similar allocations through bilateral trades outside of EIM or potentially day-ahead markets that rely on similar algorithms. Consequently, given the potential for leakage to leak to other markets, CAISO efforts to address leakage within its markets in isolation may fail.

For example, consider the Option 2 approach to secondary dispatch as represented on slide 21 of the presentation for the October 13th workshop.² This solution provides compensation of only \$33/MWh to clean resource G1, while CAISO load pays \$39/ MWh for the volume that it clears through EIM. Given that G1 is clean and hence there is no carbon compliance obligation associated with importing G1 as specified ahead of the EIM market, Both G1 and CAISO load could achieve better outcomes by agreeing to contract bilaterally in advance of EIM at a price between \$33/MWh and \$39/MWh (as long as the transmission costs that the parties might incur for imports outside of EIM and any other bilateral transaction costs are not too high). Similar incentives exist under Option 3 as represented on slides 33 and 36.

¹ https://www.hks.harvard.edu/fs/whogan/Hogan_EIM_Comments_032814.pdf

² <https://www.caiso.com/Documents/UpdatedAgenda-Presentation-RegionalIntegrationCaliforniaGreenhouseGasCompliance-TechnicalWorkshop.pdf>

Consequently, Calpine believes that the CAISO should be appropriately guarded about the impact that any of its proposed solutions may have on secondary dispatch. In addition, in light of the potentially limited benefits of the solutions, Calpine suggests that the CAISO also consider the costs. By encouraging bilateral contracting and discouraging reliance on CAISO markets, the CAISO's proposed secondary dispatch solutions could lead to more self-scheduling, contributing to overgeneration and potentially undermining the benefits of regional markets.

With respect to the merits of the specific approaches proposed by the CAISO, Calpine understands that the CAISO believes that it cannot pursue Option 1.

Option 2 seems attractive in that it uses a counterfactual to identify the specific dispatches associated with secondary dispatch. Effectively, this counterfactual ascribes resources that are least cost to meet external loads in the absence of transfers to California to external loads. Calpine has three concerns about Option 2: (1) As slide 18 acknowledges, it may not resolve secondary dispatch; (2) As indicated above, to the extent that the approach actually addresses leakage, it may encourage market participants to contract around EIM; (3) It is not obvious that it is based on a plausible counterfactual, i.e., given that California loads have an incentive to procure resources with the lowest net of carbon cost, is a counterfactual in which the lowest net of carbon cost resources are ascribed to external loads realistic?

Option 3 is ostensibly unattractive in that it applies a uniform hurdle rate to all external resources regardless of their emissions, potentially discouraging imports even of clean resources. In addition, as with Option 2, it likely would encourage volumes to leave EIM.

Absent a comprehensive approach to leakage that also addresses leakage in bilateral markets, it is not clear that any of the options proposed by the CAISO will impact leakage. To the extent that the options merely shift leakage to bilateral markets, the CAISO (and CARB) should consider the costs of such shifts in terms of reduced participation in CAISO markets. In the not too distant future, Calpine hopes that the potential for leakage will be reduced or eliminated by more uniform carbon regulation throughout the West.