

Stakeholder Comments on October 13, 2016 Technical Workshop Presentation
Regional Integration – California Greenhouse Gas Compliance Initiative

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The California Large Energy Consumers Association (CLECA) submits these comments on the second update to the presentation discussed on October 13, 2016 Technical Workshop in the Regional Integration-California Greenhouse Gas (GHG) Initiative.

The CAISO presented three options for tracking “secondary dispatch”, i.e. the possibility that least cost dispatch within the EIM (and in the future within an expanded CAISO BAA) will lead to the import of lower emitting resources into California (CA) and the backfilling of these resources to serve out-of-CA load with higher emitting resources. Conceptually, all three proposals would have CA end-users pay for allowances to address out-of-state emissions associated with resources that do not serve them. Thus all three options raise the price of power paid by CA consumers, at least those served as part of the CAISO BAA. (We are unclear as to whether such costs would be imposed on other BAAs in CA and would like to know if this is or is not the case and why.) Option 1 appears to raise prices only to address net increases in GHG. Option 2 and 3 both involve modifying the CAISO optimization. For Option 2, the LMP within the CAISO would include GHG costs from with incremental dispatch associated with the external attributed resource, if any. However, it appears that Option 3 could have the biggest negative impact on end-users because it changes the LMP within the CAISO not just for GHG but also for the residual emission rate, also known as the hurdle rate. Although the CAISO states that the residual emission rate would be for imports to the CAISO BAA, it appears that the residual emission rate would increase the LMP for all resources in the real time market under the EIM. In an expanded ISO BAA under regionalization, it would increase prices in the day ahead market as well. If this is not the case, the CAISO should explain why it is not.

It is troubling that the first two of the options appear to have been deemed infeasible upfront. Option 1, the netting proposal, would track both increases and decreases in carbon emissions throughout the EIM and retire GHG allowances for any net increase in a time period. CA consumers would pay for those allowances through their electricity bills. However, this option

has apparently been deemed unacceptable by the California Air Resources Board (CARB) because “CARB regulation does not recognize intertemporal benefits”, according to the CAISO presentation. CARB is apparently concerned that this proposal would not fully address “leakage”, i.e. substitution of higher emitting resources out of state for lower emitting resources serving the state as imports, even if net emissions are reduced.¹ CLECA notes that what is attractive about Option 1 is that it does *not* involve changes to the market optimization. There may be other options that likewise do not require changes to that optimization. If there were a means of estimating the amount of additional emissions associated with “secondary dispatch” that does not involve the running of the market, allowances could be retired to cover those emissions and the complexity of Options 2 and 3 would be avoided.

Option 2 starts with optimizing schedules outside of CA without transfers to CA to determine an economic base schedule. It then optimizes transfers to CA and compares that to the previous result to determine incremental dispatch that can be attributed to support EIM transfer to the CAISO, including resource-specific costs and attribution. It involves running the market twice every five minutes, which has been deemed technically infeasible by the CAISO. The CAISO did not explain why running the market less frequently or using a proxy counter-factual would result in significantly incorrect results. It stated that computations could be started earlier but the time lag would affect the result. However, it provided no information as to why this would be the case. What are the variables that could change so much that the lag would be a problem? We would welcome an explanation. Certainly the use of a residual price in Option 3 which cannot be determined with any precision could potentially have similar or worse problems of accuracy. Option 2, even if not perfectly implemented, is conceptually appealing because it only addresses incremental dispatches to support transfers into the CAISO, uses resource-specific GHG costs, and does not raise prices for other than the GHG bid adder of the attributed resource, if any.

Option 3 involves the use of a residual emission rate to have California ratepayers pay for the retirement of California GHG allowances attributable to out-of-state emitting resources that do not serve California. It appears to be the CAISO’s preferred solution. The residual emission rate would be added to the price of energy flows into CA. It would not apply if CA load contracts with CA supply, only when there are net imports into CA. However, it would set the market clearing price in CA and thus the LMP. Thus it appears to have the biggest cost impact on end-use consumers because it adds yet another component to the LMP within CA, namely the residual emission rate (additive to the energy bid price and the GHG bid price). It also leaves many unanswered questions, which we address below.

Conceptually, the intention of Option 3, as we understand it, is to use the revenue collected through the residual emission rate to buy and retire allowances to cover GHG emitted by out-of-state resources that backfill for resources imported into CA. However, the use of a residual

¹ All imports and power generated in CA must have GHG allowances and pass the costs of these allowances through to load by including their cost in bids into the market. However, the cost for GHG must not be included in prices paid to serve load outside of CA.

emission rate to set the LMP in CA would have that residual emission rate paid by all load in CA that buys out of the market. In the examples presented at the workshop, \$4 would be collected for every MWh used by 21,500 MW of load in CA when the GHG bid price for the resource is \$6 for 200 MW. We understand that these examples are illustrative, but this appears to create the risk of overcollecting hundreds of millions of dollars. The proposal is unclear as to whether this additional price would flow to every resource in the CAISO market, since resources dispatched by the CAISO are paid the LMP. If that is the case, in-state resources would receive extra revenue unrelated to their costs simply because there is a higher market clearing price as a result of the residual emission rate. The CAISO says that the revenue would be given to an unnamed third party, which would then buy and retire allowances to offset the GHG created as a result of this secondary dispatch. No information has been provided as to the nature of the entity or how it would be found and qualified to perform this function, nor has any information been presented as to how the residual price would be set or how any overcollections would flow back to consumers. Additionally, it is totally unclear as to how the proposal would prevent resources from receiving this additional revenue and instead put it into a fund to buy allowances.

In its response to earlier stakeholder comments, the CAISO said that it “is considering variations to this approach that would reflect the lower carbon output for non-emitting resources scheduled to meet California load. For example, resources under contract to California load serving entities could be included in the market without applying the uniform GHG adder as there would be no secondary dispatch associated with the transfer of these resources’ output to California.”² At the workshop, the CAISO indicated that the hurdle rate (another name of the residual emission rate) could be avoided if LSEs within the CAISO BAA contract with non-emitting out-of-state resources to import their power. However, if the output of any emitting resource supports the transfer of power into CA, it would appear to set the LMP. CAISO needs to provide a much better explanation of its proposal and how it would not affect the LMP in CA.

Another critical point about Option 3 is how to set the residual emission rate and how often to change it. At the workshop, Powerex argued for using a marginal cost rather than an average cost. Someone said that if the residual emission rate is too high, clean resources would not be dispatched externally and dirty resources would be dispatched internally. The hurdle rate makes external resources more expensive to sell to CA. The CAISO responded that CA resources have GHG in their price. However, under Option 3, they will pay for GHG plus the residual emission rate. There needs to be a better explanation of Option 3 along with an estimate of how much revenue actually needs to be collected to retire allowances for these “secondary dispatch” emissions before there can be informed comment on how to set the rate.

² Stakeholder Comments Matrix October 18, 2016. No page numbers provided.