In the cap and trade regulation, CARB’s definition of Replacement Electricity provides an important linkage between the variable renewable resource output and the GHG attribute associated with energy imported into California. Section 95802 (a)(237), page A-39 states:

(237) “Replacement Electricity” means electricity delivered to a first point of

delivery in California to replace electricity from variable renewable

resources in order to meet hourly load requirements. The electricity

generated by the variable renewable energy facility and purchased by

the first deliverer is not required to meet direct delivery requirements.

The physical location of the variable renewable energy facility busbar

and the first point of receipt on the NERC E-tag for the replacement

electricity must be located in the same Balancing Authority Area.”

 CARB’s definition provides a reasoned compromise between opposing options on the treatment of imported power GHG emissions. The options include unrestricted attribution of the variable renewable emission rate to otherwise largely fossil-based imports to California, or only allowing attribution where the power is contemporaneously and directly delivered to California, as verified via e-Tags. The above definition provides the market with flexibility in firming and shaping inherently variable renewable deliveries temporally from the host balancing authority, while retaining verifiable delivery from the renewable host balancing authority to California. This is a reasonable compromise that provides market flexibility while maintaining the integrity of emissions tracking and assignment. CARB’s additional restrictions ensuring the appropriate use of the renewable GHG attribute include requiring that the replacement electricity not to exceed the amount reported for the variable renewable resource, that the replaced electricity not have an emission rate credit greater than the default import emission rate, and that the importer have a contract with both the variable renewable resource and the power exported from the host balancing authority.