Carbon Accounting and the RPS Adjustment

This document responds to the ARB's questions at the March 23, 2016 ARB/Joint Utilities Group ("JUG") meeting regarding the potential impact on GHG emissions reporting accuracy that could result from the adoption of the Joint Utility Group's ("JUG") proposal to address direct delivery concerns associated with the RPS Adjustment. During the course of the March 23 meeting, the JUG explained that demonstrating the absence of direct delivery is an unreasonable requirement given the utilities' and their verifiers' lack of visibility into other entities reports. The entity taking the RPS Adjustment no longer controls by contract that underlying power, and it cannot track it to ensure that it is not at some point directly delivered. The JUG therefore proposes to address direct delivery concerns by requiring that importers of power generated by eligible renewable energy resources show ownership of the associated RECs in order to claim the imports as specified (such requirement seems implied already by C&T 95852(b)(3)). Absent this demonstration, the import would be characterized as unspecified, subject to the default emissions factor. As discussed below, JUG's proposal would not result in any increase in overall emissions; it merely adjusts who can receive the GHG benefit. Reported emissions for purposes of state-wide emissions accounting could be taken from the portion of entities' EPE reports that shows emission obligations after the RPS adjustment is taken.

- Overall, the generation of renewable energy will, in most cases, displace fossil power on the grid, and thereby reduce overall GHG emissions, regardless of the location of the resource or whether it is delivered to California.
    - The JUG understands staff's argument that some renewable energy may be produced during periods of overgeneration.[1] In this scenario however, the generation is either sold at a loss (but still delivered and consumed by customers somewhere in lieu of alternative forms of energy) or curtailed. Additionally, the direct delivery of energy from a renewable resource into California could be produced during a period of oversupply yet staff currently assigns it a zero GHG emissions factor.
- Since emissions from both in-state and imported electricity are covered under the Cap and Trade Program in California, a change in the location of electric sector emissions (between these two categories) merely alters who is responsible for the emissions, but does not alter overall covered emissions.
- State RPS policy allows procurement of renewable resources from outside of California in three ways: 1) if directly delivered (PCC1); 2) if substitute energy is delivered (PCC2); and 3) without any delivery (PCC3). RPS procurement is tracked through RECs.
- The RPS adjustment in the Cap and Trade regulations allows entities that procure renewables in the second way to reflect the zero-emission nature of the procurement – by subtracting commensurate emissions from the procuring entity's obligation.
- If the ARB continues to enforce the direct delivery provisions as currently described or explicitly removes the RPS Adjustment from Cap and Trade altogether, the result will be a significant increase in costs to California ratepayers and a barrier to signing new, more

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cost-effective procurement contracts that fully meet the State's companion and complementary RPS policy. There will also be a significant loss in value for entities that entered into ownership interests and long-term contracts relying on the laws in place at the time of procurement.

- This approach seems unnecessary from both environmental and accounting perspectives. As outlined below, there are several ways to avoid "double counting" issues.
- The approach implies that EDUs and their verifiers using the RPS Adjustment could "act in good faith" when submitting the EPE report and later receive a negative verification statement that jeopardizes the EDUs' entire allowance allocations.
- Maintaining the existing direct delivery approach could incent additional import of energy from renewable resources, further increasing compliance costs for utility customers despite RPS procurement.

- On March 23, ARB staff asked the JUG how the existing RPS adjustment policy should be structured going forward, and how any changes to the current approach could affect GHG emissions reporting in the Cap and Trade structure. There are three potential scenarios:
  - **A.** The underlying renewable power **is not delivered** to California while firmed-and-shaped energy is delivered, and ARB assigns the firmed-and-shaped energy an unspecified emissions rate due to the regulation's seller warranty provisions. The emissions assigned to the firmed-and-shaped power appear in the entity's reporting of emissions and hence in California's reported emission total. However, ARB then allows the utility to take an RPS adjustment to reduce its compliance obligation and reflect the generation of zero emissions renewable energy resulting from ratepayer investments. This is the intended structure of the current RPS Adjustment policy.
  - **B.** The underlying energy generated by the renewable resource **is delivered** to California by a third party, and the third party reports the emissions associated with that import as zero (as ARB currently is requiring). In this structure, two California entities will receive the Cap and Trade compliance benefit of that zero emissions power – the entity taking the RPS Adjustment associated with the power, and the entity importing the power. There is no change to overall emissions -- California's emissions are still constrained by the cap, and out-of-state emissions are not altered. This double counting is a problem from an emissions accounting perspective and ARB should resolve it by preventing the third party from reporting as a specified source when the RPS Adjustment is taken (structure **C** below).
  - **C.** The underlying energy **is delivered** to California by a third party, and that delivery is designated as coming from an unspecified source (that then has a compliance obligation. In this case, the Cap and Trade compliance benefit remains with the entity taking the RPS Adjustment. The importing entity will have a compliance responsibility for the unspecified source emissions. There is no change to overall emissions -- California's emissions are still constrained by the cap, and out-of-state emissions are not altered by California allocating emissions obligations. There is no double-counting in terms of compliance benefit, but there is a "double counting" of emissions responsibility "assigned" to California, as both the substitute power emissions and the

null power emissions are included in the reported total. This is just a reporting issue, so it does not necessarily need to be addressed in the same way as the double counting of compliance benefit. However, if ARB wishes to address the problem, there are three choices: 1) reduce the "reported" emissions for the entity taking the RPS Adjustment commensurate with the reduction in compliance obligation; 2) reduce the "reported" emissions for the entity importing the directly delivered null power, even though there would still be a compliance obligation; or 3) simply reduce California's overall reported emissions to reflect the RPS Adjustment policy, without assigning the reduction to any specific entity.

- The difference is which entity bears the burden of proof and the risk of disallowance without that proof – the **direct deliverer** or the **entity taking the RPS Adjustment**. As the RPS Adjustment is an existing, important tool for aligning the RPS and Cap and Trade policies and represents tens of millions of cost reductions to California utilities, the utilities prefer that ARB prevent the reporting of the directly delivered underlying power as a zero-emission specified source (structure **C**). This can be achieved by enforcing the existing requirement that REC serial numbers must be associated with any direct delivery if the specified emissions factor is to be applied. Proving lack of direct delivery by the RPS Adjustment entity is impossible. The alternative -- proving that any underlying power that is directly delivered is done so as null power with a compliance obligation is simple in contrast – the importing entity must document the associated RECs in order to get a specified source emission factor. During an RPS Adjustment procurement transaction, the entity originally procuring the renewables and taking the RPS Adjustment acquires the RECs by contract. Ownership of the RECs is then easy to report and verify. If the underlying power is resold into California, it will not have RECs associated, and the absence of those allows ARB to assign an unspecified emissions factor with confidence that the situation can be verified.