powerex.
Supply. Flexibility. Commitment.

Powerex Corp.
Suite 1400 – 666 Burrard Street
Vancouver BC Canada V6C 2X8

604 891 5000 PHONE
800 220 4907 TOLL FREE
www.powerex.com

January 22, 2016

Via Electronic Submission

California Air Resources Board
1001 I Street
Sacramento, CA 95812

Re: Comments of Powerex Corp. on Potential Amendments to the Cap and Trade Regulation and/or the Mandatory Reporting Regulation Concerning the Reporting of Direct Deliveries and the RPS Adjustment

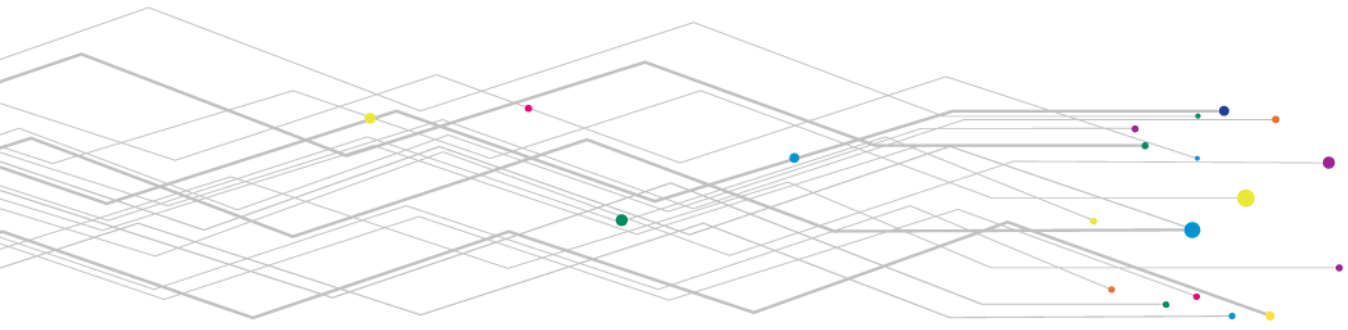
Dear Air Resources Board Staff:

Powerex appreciates the opportunity to provide comments as CARB considers potential changes to the RPS adjustment program and in particular the role of Renewable Energy Credit ("REC") ownership. These comments address the concerns expressed by CARB staff during the December 14, 2015 stakeholder workshop and are guided by the narrow "scope" of suggestions requested by CARB staff during the workshop. They are offered in an effort to make the RPS adjustment program work more effectively and with a higher degree of transparency.

The RPS adjustment is an optional financial credit offered to reporting entities to reduce their compliance obligation. Powerex understands that CARB is currently concerned with the potential double-counting of GHG emissions value due to (1) a zero GHG emission factor for electricity from an eligible renewable energy resource ("ERR") that is directly delivered in the State of California; and (2) the RPS adjustment credit that is also claimed for the same electricity.

Powerex is providing two proposals, both of which will maintain accurate GHG emission accounting for electricity imported into California and eliminate double-claiming of GHG emissions from direct deliveries of imported electricity and the RPS Adjustment. The first proposal is offered as a short term solution for the 2015 to 2017 period and would require no changes to either the Cap and Trade Regulation ("CTR") or the Mandatory Reporting Regulation ("MRR"). Powerex understands that the second proposal may require regulatory amendments, and therefore offers it as a medium term solution for the 2018 to 2020 period.

Under both of the Powerex proposals, all direct deliveries of electricity to California under a written power contract will continue to be reported on the Specified Imports tab of the Electric Power Entity ("EPE") workbook and reported at the emission factor of the source facility. This will enable CARB to accurately account for the GHG emissions from the generation of electricity delivered to and consumed in California.



Short Term Proposal (Reporting Years 2015-2017)

To eliminate double-counting, Powerex's understands that any reporting entity that claims the RPS adjustment (the "RPS Adjustment Claimant"[1]) is required to provide its third party verifier with sufficient information to enable it to determine that any electricity associated with the RPS adjustment claim was not directly delivered to California. To achieve this, two pieces of information are needed regarding the disposition of the output of the ERR:

1. The amount of energy that was generated by the ERR (or the off-taker's share of the generation in those cases where the off-taker only has a share of the total output). This quantity of energy is the same as the number of RECs produced by the ERR (or the off-taker's share of the facility's output, as the case may be); and

2. The amount of the energy from the ERR that was directly delivered to California.

The difference between the two values represents the maximum amount of the RPS adjustment that may be claimed.

Double-counting issues arise from information asymmetry in which the RPS Adjustment Claimant does not know how much of the output from the ERR was directly delivered to California. Powerex's proposal is based on the idea that while the RPS Adjustment Claimant may not know how much of the output of the ERR was directly delivered to California, it will have a contract with an entity that does know how much of the energy was delivered to California.[2] Because the RPS adjustment requires the importer to have a contract (see CTR section 95852(b)(4)(a)), the RPS Adjustment Claimant must have a contract with a counterparty that is either (1) providing the generation from the ERR, or (2) off-taking the generation from the ERR in a "firming and shaping" agreement. In both instances the counterparty would likely have access to the requisite information.

Electricity that is directly delivered to California has an eTag. If the RPS Adjustment Claimant is not on the eTag, the RPS Adjustment Claimant will have a direct contractual relationship with a counterparty that is on the eTag. This entity (the "Marketer") may be (1) the generator or an entity buying from the generator; or (2) the off-taker of the electricity from the ERR. Even if the output of the ERR has been re-sold multiple times, the Marketer almost certainly is still in the market path of the e-Tag. As such, the Marketer has access to data regarding the final destination of the output of the ERR and could provide that information in aggregate to the RPS Adjustment Claimant.[3]

In cases where the RPS Adjustment Claimant is not on the eTag, one of the entities with which the RPS Adjustment Claimant has a contract will be (or will have rights to be), in either the market path or the physical path of the schedules from the ERR. This party could provide aggregated data to the RPS Adjustment Claimant. For example, where a Marketer takes receipt of the generated energy from the ERR, the Marketer could provide the following attestation to the RPS Adjustment Claimant with which it has a contract:

---

[1] The majority of the time (but not always) this entity is the load serving entity regulated under the California RPS and the ultimate holder of the REC.

[2] For the purpose of this proposal Powerex is setting aside the important questions of which entity **should** have the right to claim the RPS Adjustment or what intensity should be assigned to the directly delivered ERR's that do not have REC serial numbers.

3 To address confidentiality concerns, the Marketer could provide the RPS Adjustment Claimant with an attestation containing the aggregated data of electricity directly delivered to California rather than the actual eTag data.

Generation from the ERR (MWh) delivered to the Marketer	10,000
MWh delivered on a continuous transmission path to a California Balancing Authority[4]	4,000
Total MWh eligible for RPS Adjustment[5]	6,000

In cases where the output of the ERR (without the RECs) changes hands numerous times before its final destination, the Marketer, with whom the RPS Adjustment Claimant has the contract, will likely still be on the eTag and will still have visibility of the ultimate destination of the energy. Therefore, the Marketer should have the ability to provide to the RPS Adjustment Claimant the amount of the electricity from the ERR that was directly delivered to California.

Of course, the fact that the sink Balancing Authority ("BA") on an eTag is a California BA does not necessarily mean that the energy meets the "directly delivered" requirements. It indicates only that the output of the ERR was scheduled on a continuous physical transmission path from the ERR to a California BA. The eTag is silent to whether there is a written power contract for electricity generated by the ERR. Therefore, the information on the eTag is used to determine a presumed limit on the quantity of energy that is eligible for an RPS adjustment claim. Entities could refute this presumption with sufficient data to demonstrate that there has been no double-counting.

Powerex offers this proposal based on the limited scope requested by CARB Staff during the December 14, 2015 workshop and has not addressed the broader issues of the appropriate emission factor assigned to "null power" or REC serial number reporting. Powerex appreciates that there are considerably more complex configurations of contractual and scheduling relationships and believes that this approach is viable as long as contracting parties provide sufficient information to their counterparties. Powerex would welcome the opportunity to discuss this short term proposal further with CARB staff.

Medium Term Proposal (Reporting Years 2018-2020)

Powerex recognizes that its second proposal would require regulatory and EPE workbook changes. However, this proposal would simplify the data requirements for third party verification while still providing CARB staff with accurate GHG accounting. We would be happy to offer specific implementing language, but for now limit ourselves to describing the concept of the proposal.

For electricity that is directly delivered to California from an ERR, the reporting entity would be required to flag whether the reporting entity has the contractual rights to the associated REC. If the reporting entity does not have the contractual rights to the REC for the electricity from an ERR (otherwise known as "Null Power"), then a compliance obligation on the reporting entity is triggered. The compliance obligation is equal to the amount of electricity delivered multiplied by the default emission factor. For reporting purposes, in addition to the current method of reporting imported GHG emissions based on the emission factors of the underlying facilities, there would be a new

[4] Simple delivery on a continuous transmission path to a California BA does not necessarily mean that the energy was directly delivered (i.e. no written power contract). However, the volume on the eTag can be thought as the presumed amount of electricity that was directly delivered.

[5] In this example, the RPS Adjustment Claimant would be limited to a 6,000 MWh RPS Adjustment claim unless the RPS Adjustment Clamant could otherwise prove to its verifier that any or all of the 4,000 MWh delivered to California on a continuous transmission path did not meet the definition of directly delivery pursuant to the CTR and MRR (i.e. no written power contract).

column of data on the Specified Imports tab of the EPE workbook relating to the reporting entities' compliance obligation that is triggered by the REC reporting flag.

Under this medium term proposal, the Specified Imports tab would provide two key pieces of information for both CARB and the reporting entity:

1. CARB could determine the total GHG emissions based on the emission factor of the specified facilities; and

2. The reporting entity could determine its compliance obligation based on the REC reporting flag, and thereby also avoiding any double-counting of the GHG emissions when the REC owner reports an RPS adjustment claim.

Under this proposal, if the written power contract from the ERR does not include the rights to report the associated RECs, then the Null Power directly delivered to California would trigger a compliance obligation for the importer; thus, any other reporting entity claiming an RPS adjustment with the associated RECs would not be double-claiming.

There are several benefits to this approach:

- Information asymmetry would no longer be an issue, as third party verifiers need only look at the REC ownership provisions in the contracts underlying the Specified Imports or RPS adjustment claims.

- A reporting entity claiming a RPS adjustment would not be double-counting. Any electricity from an ERR that was directly delivered to California that was stripped of its REC would be marked as Null Power and, thus, would trigger a compliance obligation on the importer.

- The incremental compliance obligation would not ascribe a GHG intensity to the Null Power, it would rather ascribe economic penalty to an importer that does not have rights to report the REC upon import into California. (This is similar to the idea that the RPS adjustment credit is not recognition of avoided emissions.)

- The EPE workbook would provide summaries of both the GHG accounting calculations, based on individual facility intensities, and compliance obligations based on the Null Power flag.

- CARB's GHG accounting would be accurate. The GHG emissions for electricity that is directly delivered to California would be calculated by the facility's emission intensity factor.

Powerex appreciates this opportunity to provide these proposals. We would be happy to discuss them with staff and to develop proposed language if that would be helpful.

Yours truly,

Mike Benn
Energy Trade Policy Analyst