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Via Electronic Submission

Clerk of the Board
California Air Resources Board
1001 I Street
Sacramento, CA 95812

Re: Comments of Powerex Corp. on the Proposed Amendments to the Cap-and-Trade Regulation

Dear Chairwoman Nichols and Members of the Board:

On behalf of Powerex Corp. ("Powerex"), I submit the following comments on the California Air Resources Board's ("ARB's") September 4, 2013 Proposed Amendments to the Cap-and-Trade Regulation (the "CTR" or the "Regulation"), scheduled for consideration by the Board at its October 24-25, 2013 meeting.

Powerex is a corporation organized under the Business Corporations Act of British Columbia, with its principal place of business in Vancouver, British Columbia, Canada. Powerex is the wholly-owned energy marketing subsidiary of the British Columbia Hydro and Power Authority ("BC Hydro"), a provincial Crown Corporation owned by the Government of British Columbia. Powerex sells power wholesale in the United States, pursuant to market-based rate authority granted by the Federal Energy Regulatory Commission in October 1997, renewed most recently effective January 1, 2009.

Powerex sells power from a portfolio of resources in the United States and Canada, including Canadian Entitlement resources made available under the Columbia River Treaty, BC Hydro system capability, and various other power resources acquired from other sellers within the United States and Canada. Powerex also buys and sells power in Canadian provinces other than British Columbia and in Mexico. Powerex has been delivering power to California since shortly after receiving its market-based rate authority and is currently registered with ARB as an Asset Controlling Supplier ("ACS").

Powerex appreciates ARB's efforts to create and implement a comprehensive greenhouse gas ("GHG") cap-and-trade program (the "Program"). In Powerex's view, the Program serves to

fulfill the mandate in the California Global Warming Solutions Act ("AB 32") to reduce GHG emissions in California and to combat global climate change. With the proposed amendments to the CTR, ARB is making significant progress toward achieving the goals of AB 32.

Powerex offers the following comments on the proposed modifications to the CTR with the goal of improving and refining the Program. Powerex here focuses its comments on just a handful of critical areas. Based upon the experience with the first nine months of the Program, it is clear that important issues remain to be resolved if the GHG emissions and electricity markets are to function efficiently, incorporating economic signals one from the other.

1. Powerex Welcomes ARB's Proposed New Definition of "Resource Shuffling," But it Needs Further Clarification.

Powerex welcomes ARB's proposed new definition of "resource shuffling" in CTR § 95802(a)(317), and appreciates the work that ARB has done to address this issue over the course of many months.[1] The new definition is far more specific than the prior version, and Powerex agrees that the term — and thus also the prohibition set forth in CTR § 95852(b)(2) — must be limited to First Deliverers of Electricity. However, in the context of a First Deliverer that also is an asset controlling supplier ("ACS"),[2] more clarity is needed.

The proposed new CTR § 95802(a)(317) defines "resource shuffling" as

> . . . any plan, scheme, or artifice undertaken by a First Deliverer of Electricity to substitute electricity deliveries from sources with relatively lower emissions for electricity deliveries from sources with relatively higher emissions resources to reduce its emissions compliance obligation. Resource shuffling does not include substitution of electricity deliveries from sources with relatively lower emissions for electricity deliveries from sources with relatively higher emissions resources when the substitution occurs pursuant to the conditions listed in section 95852(b)(2)(A).

[1] *See* the Initial Statement of Reasons for these Proposed CTR Amendments (the "ISOR") at 30-31 (discussing Board Resolution 12-51 and ARB's subsequent promulgation of guidance developed in consultation with other California agencies, the California Independent System Operator ("CAISO"), and stakeholders).

[2] ARB is concurrently proposing to revise the definition of "asset-controlling supplier" to "any entity that owns or operates inter-connected electricity generating facilities or serves as an exclusive marketer for these facilities even though it does not own them, and is assigned a supplier-specific identification number and system emission factor by ARB for the wholesale electricity procured from its system and imported into California. Asset controlling suppliers are considered specified sources." Proposed Mandatory Reporting Rule ("MRR") Section 95102(a)(20).

As the definition of First Deliverer includes importers (*see* proposed new CTR § 95802(a)(137)), the applicability of the definition of resource shuffling to electricity imports is fairly clear. However, that clarity becomes a bit muddied in the context of an ACS. As discussed in Powerex's October 22, 2013 Comments on ARB's proposed MRR amendments ("Powerex MRR Comments"), some MRR provisions appear to refer to an ACS as itself a specified source, when other definitions recognize that it is the *system of an ACS* that may be designated as a specified source, and not the ACS entity in and of itself. (*See* Powerex MRR Comments at 8-10.) The various power transactions that take place *within* an ACS system would *not* constitute resource shuffling.

This is because the Program requires an entity that applies for an ACS designation to report annually all transactions for all power generated within its system as well as all transactions for both specified and unspecified power that are delivered to its system. *See* MRR § 95111(f). Each year an entity applies to be an ACS based on the power generation and import-and-export activity data in the previous year, and ARB then determines its ACS system emission factor prospectively in accordance with MRR § 95111(b)(3). That ACS system EF is applied to power delivered from the system of that ACS in the following year.

During that next year, power delivered by the entity designated as an ACS from its ACS system is reported under the MRR as a specified source with the system EF determined by ARB. To the extent that there may be any questions about the power transactions within an ACS's system, they are addressed by ARB in the annual ACS application process by which ARB determines the entity's annual ACS system EF. Should ARB make any changes to an entity's ACS system EF, those changes would be made prospectively; they would not apply to the year for which the entity had been designated by ARB as an ACS based on its previously submitted reports.[3]

The rationale for the Program's ACS provisions — to ensure environmental integrity through the annual reviews of an ACS system's activity — is particularly clear in the case of a hydropower-based ACS like Powerex. Powerex acts as the exclusive marketer for BC Hydro, which has a fleet of generating sources that is 95% hydro, consisting of more than 30 dams, storage reservoirs and "run-of-the-river" projects within British Columbia.[4] Through its

[3] ARB confirmed this in the Final Statement of Reasoning for Amendments to the MRR and Conforming Amendments to the CTR, dated November 2, 2012. In response to a comment by the Southern California Public Power Authority expressing concerns about the status of specified power purchased from an ACS that later loses its ACS status, ARB explained that a loss of ACS designation "would only occur if an ACS did not successfully complete the reporting and verification process," and confirmed that "a loss of [ACS] designation would be prospective only, as ACS status would not be revoked retroactively." *Id.* at 38.

[4] It should be noted that at least two of these generation stations (G.M. Shrum on the Peace River and Mica on the Columbia River) are large multi-year storage reservoirs. These reservoirs have the ability to store water in one season, and draw on the water in a subsequent season or even years later to run the turbines. Extended draw-downs

purchasing and marketing activities Powerex optimizes the capabilities of BC Hydro's generation resources, determining the level of power necessary to support BC Hydro's domestic load obligations along with short-term exports to California and imports of both specified and unspecified power. Powerex has historically performed this optimization function for BC Hydro's resources, and continues to do so under California's Cap-and-Trade program. It is a dynamic process, very much affected by weather patterns (temperature and rainfall) and other natural forces. For example, in "high water" years during which there is much precipitation in the Pacific Northwest, Powerex may export more power than it imports, and in "low water" years it may import more than it exports.

All of this optimization activity is fully reported and verified each year in Powerex's annual application for ACS designation, and all of this activity is then captured in its ARB-determined ACS system EF. Given the full, verified reporting inherent in this process and its role in ensuring the environmental integrity of the Program, Powerex respectfully requests that ARB confirm that the definition of "resource shuffling" does not include the activity reported and verified annually as part of the rolling ACS application and ACS system EF determination process.

2. Powerex Welcomes ARB's Proposed Codification of the Resource Shuffling "Safe Harbors" into the Regulation, But Safe Harbor No. 10 Requires Clarification.

Powerex welcomes the incorporation into the Regulation of the list of thirteen activities that ARB recognizes as *not* constituting resource shuffling, designated by ARB as "safe harbors" to the prohibition on resource shuffling. The safe harbors originally were set forth in Attachment A to Board Resolution 12-51 and later were incorporated into guidance promulgated by ARB in consultation with other state agencies, CAISO and stakeholders. (*See* ISOR at 30-31.) It is appropriate that these safe harbors be codified in the Regulation, thereby providing clearer and more lasting regulatory certainty than the guidance previously provided.

Safe Harbor No. 10, set forth in proposed CTR § 95852(b)(2)(A)(10), is of particular importance. It provides as follows:

> Short-term transactions and contracts for delivery of electricity with terms of no more than 12 months, or resulting from an economic bid or self-schedule that clears the CAISO day-ahead or real-time market, for either specified or unspecified power, based on economic decisions including implicit and explicit GHG costs and congestion costs, unless such activity is linked to the selling

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of water levels in major storage reservoirs in one season may take years to recover from, and adversely affect generation efficiency in every following year until restoration of the original water levels has been completed.

> off of power from, or assigning of a contract for, electricity subject to the EPS rules from a power plant that does not meet the EPS with which a California Electricity Distribution Utility has a contract, or in which a California Electricity Distribution Utility has an ownership share, that is not covered under paragraphs 11, 12 or 13 below.

Frankly, however, this language is not a model of clarity.

Powerex understands that Safe Harbor No. 10 is intended to apply to "short-term transactions and contracts for delivery of electricity with terms of no more than 12 months." Powerex interprets the word "term" within this context to refer to the actual electricity delivery period into California that is specified in the contract. It does not refer either to (a) the timeframe of the contract itself (*i.e.*, the time between the execution date and the end of deliveries under the contract), as the contract could, for example, be a forward contract executed several months in advance of the commencement of deliveries, or to (b) the contracting, scheduling or generating activities within the portfolio of the supplier. (*See, e.g.,* footnote 4, *supra*.) Powerex requests that ARB confirm that this interpretation is correct.

3. ARB Should Consider Adopting a New Safe Harbor Relating to ACSs.

In the event that ARB cannot provide the clarifying confirmations requested above, then Powerex respectfully requests that ARB adopt an additional safe harbor — that is, a new Safe Harbor No. 14, which would apply to the unique circumstances of an ACS. We propose the following language for this new safe harbor:

> Purchase, sale, and scheduling activity associated with the system of an asset-controlling supplier, incorporated into ARB's determination of the asset-controlling supplier's annual system emission factor in accordance with MRR section 95111(b)(3), shall not be considered resource shuffling during the reporting year for which the entity has been designated as an asset-controlling supplier.

As discussed in Section 1 above, ARB's ACS designation process has resulted in a single, system-wide EF for Powerex's ACS-related transactions with California in 2013. Under ARB's rolling review procedures, a new system EF will be established for each subsequent year. And in each subsequent year Powerex's ACS system EF will be based on its full and verified reporting of the then-prevailing mix of supply inputs to and generation within the BC Hydro system that are required to meet the dynamic operational requirements in each given year, including the support of exports to California.

The very nature of a hydropower system and the optimization activity needed to meet its dynamic operational requirements expose such systems to unjustified claims of inappropriate use of its ACS status. Powerex has availed itself of ARB's ACS process to submit to full review and verification of the entirety of the BC Hydro system inputs, including both imports and in-Province generation, in order to determine a single, ACS system-wide EF. Powerex is committed to providing accurate reporting to ARB due in part to its general responsibilities as a Crown Corporation, but also to protect itself against claims of resource shuffling.

Powerex should be entitled to rely on the applicability of the ACS EF for the particular year that it is in place without fear of retroactive adjustment (again, assuming that Powerex has accurately reported to ARB) or on Safe Harbor No. 10. If ARB cannot clearly provide such a confirmation, then Powerex respectfully submits that it should consider adopting the proposed Safe Harbor No. 14 set forth above.

4. The RPS Adjustment.

Powerex understands the importance of the RPS Adjustment provisions as a key component of the Program as it relates to electricity markets. In Powerex's view, the focus of these provisions should be to ensure alignment with California's RPS program while maintaining accurate GHG emission accounting. Powerex is concerned that the provisions as proposed do not achieve the necessary alignment. Powerex's primary concern is specific to the proposed amendments to CTR § 95852(b)(4)(A) that would require the electricity importer to have title to the RECs associated with the eligible renewable resource in order to claim the RPS Adjustment. This requirement is not consistent with the rules governing the RPS program in which it is an accepted practice for the importer of the substitute electricity to import on behalf of an RPS regulated entity and to not have title to these RECs. In this case, it is common for the California entity subject to the California RPS, on whose behalf the importer is importing the substitute electricity, to retain title to the associated RECs. Many firming and shaping deals were contracted for with these requirements in mind, and on the assumption that the carbon costs would accrue to the importer of the substitute electricity since the California Public Utilities Commission's Decision on Product Content Categories, issued December 15, 2011, which would recoup these costs by claiming the RPS Adjustment. ARB's proposed amendment would require these existing contracts to be renegotiated, and unnecessarily narrow the contract structure flexibility for prospective firming and shaping deals.

Rather than proposing specific edits to the RPS Adjustment, Powerex supports the comments proposed by the Western Power Trading Forum in both of its sets of comments on ARB's Proposed Amendments to the CTR, dated October 16 and 23, 2013.

5. ARB's Wholesale Incorporation of the CAISO Energy Imbalance Market Program May Promote Resource Shuffling.

On September 23, 2013, CAISO released its "Draft Final Proposal" for Energy Imbalance Markets (the "EIM"). Powerex is actively involved in the development of the CAISO EIM program, and noted in its comments on CAISO's "Third Revised Straw Proposal," which were submitted to CAISO on September 10, 2013 (*see* http://www.caiso.com/informed/Pages/StakeholderProcesses/EnergyImbalanceMarket.aspx), that CAISO's carbon proposal remains inconsistent with elements of ARB's Cap and Trade Program. The proposed CTR amendments do not address the inconsistencies between the two programs. In essence, they simply add CAISO's EIM concepts to the definitions of electricity import and export without any revision. If left unaltered, the EIM provisions have the potential to damage the viability of ARB's Cap and Trade Program.

CAISO's approach is designed to efficiently select individual low-EF generators from an EIM participant's portfolio of resources for delivery to the CAISO, while leaving higher-EF power for deemed delivery to the EIM participant's local load or to other states within the EIM footprint that do not have cap-and-trade programs, This organized, algorithmic approach will systematically prefer the delivery of low-EF power to California and artificially enhance the states' ability to reach its GHG emission reduction goals, while actually promoting leakage in neighboring states. In other words, the EIM overlay to the ARB Program may cause resource shuffling if it fails to consider the GHG impacts of *all* activities that result from EIM price signals - a result which is inconsistent with the purpose of the Program. This discrepancy in results is most readily apparent when contrasted with the approach taken for calculating an ACS's ACS-wide EF and the proposed MRR amendments to address high intensity system power imports. *See* MRR § 95111(b)(5).

The EIM program likely will send powerful price signals to significantly increase resource shuffling not only in the EIM but in the temporal markets that schedule prior to the EIM. EIM participants likely will increase the carbon intensity of their EIM base schedules in order to save low-EF power for the EIM. For example, acting in response to these price signals, an EIM participant with significant coal and natural gas generation likely would increase its reliance on this generation (as well as its reliance on higher-EF imports) to serve its obligations outside the CAISO footprint, as represented by its EIM base schedules, in order to save its lower-EF power, such as hydro-electric output, for the EIM.

The EIM price signals also may create a strong incentive for suppliers to move their transactional activity out of the day-ahead and hour-ahead markets and into the EIM which would allow them access to a substantially more efficient method to capture the value of the low-EF power supply within their portfolios. An EIM participant, through experience, may even seek to build or enter into long-term contracts for higher-EF output to meet its load obligations

outside the CAISO so as to "free-up" its lower-EF resources to offer that low-EF power into the EIM on an ongoing basis.

CAISO's carbon algorithm approach in its EIM program proposals has the potential to create market distortions and undermine the mechanisms ARB has established to address the import of system power, including the calculation of ACS-wide EFs for ACSs and ARB's proposed language for "System Power Imports" in MRR § 95111(b)(5). Powerex believes a more appropriate approach, and one that is consistent with ARB's current program design, would be to consider applying either a weighted average emission factor for each EIM Entity (similar to the provisions for calculating the EFs for ACSs and System Power Imports), or, in the alternative, using the unspecified EF for all imports into California in the EIM. Further work would be necessary to evaluate how to apply such non-zero, non-generator specific, emission factors to EIM dispatches in a manner that avoids unintended outcomes in both the energy and carbon markets.

Powerex urges ARB to reconsider the method by which it incorporates CAISO's EIM program into the CTR. In so doing, we recommend that ARB review the more complete set of comments on the EIR that Powerex previously submitted to CAISO.

Thank you for your review and consideration of these comments. Again, Powerex applauds ARB for its continued work to implement the mandate of AB 32 and, in particular, its work on market-based compliance mechanisms. If you have any questions on the enclosed comments, please contact me, at 415-262-4008 or nvanaelstyn@bdlaw.com.

Sincerely,

Nicholas W. van Aelstyn

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