M S R Public Power Agency

P.O. Box 4060 • Modesto, California 95352 • (209) 526-7373

August 11, 2011

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

Re: M-S-R Comments on Cap-and-Trade Regulation, Proposed Revisions

Dear Sir:

Pursuant to the direction set out in the *Notice of Public Availability of Modified Text and Availability of Additional Documents*, issued on July 25, 2011, the M-S-R Public Power Agency provides these comments to the California Air Resources Board (CARB) on the *Proposed California Cap on Greenhouse Gas emissions and Market-Based Compliance Mechanisms Regulation, Including Compliance Offset Protocols.* M-S-R submits these comments on the very limited issue of the treatment of "replacement electricity" as defined in § 95802(a)(237) and applied in § 95852(b),[1] due to the very significant implications and adverse impacts that the proposed definition has on the efficient, economic, and viable use of generation resources and the treatment of renewable generation resources throughout the western region.

I. INTRODUCTION

Created in 1980, the M-S-R Public Power Agency is a public agency formed by the Modesto Irrigation District, the City of Santa Clara, and the City of Redding. M-S-R is

1 M-S-R supports, in their entirety, the comments of the Northern California Power Agency, submitted on August 11, 2011, and the Joint Utilities letter submitted to CARB on August 10, 2011, regarding other aspects of the Proposed Regulation and Proposed Revisions.

authorized to acquire, construct, maintain, and operate facilities for the generation and transmission of electric power and to enter into contractual agreements for the benefit of any of its members. M-S-R does not serve retail load within California but supplies wholesale power under long-term contracts to its retail load-serving members. M-S-R pursues the development of renewable energy projects and contracts both within and outside of California on behalf of its member agencies who are obligated to meet the State's 33% renewable portfolio standard (RPS). As a joint powers agency that contracts for renewable energy resources on behalf of its members, M-S-R has a direct interest in the outcome of this proceeding and in the treatment of renewable electric resources under the Cap-and-Trade Program.

M-S-R is concerned that the proposed treatment of "replacement electricity"[2] will not only adversely impact entities such as M-S-R, but also undermine the considerable (and costly) progress that electrical distribution utilities have made in attempting to meet the State's explicit and aggressive RPS.

II. COMMENTS ON THE DEFINITION OF REPLACEMENT ELECTRICITY

A. The Proposed Definition Creates Tension Between State Policies that Should be Complementary.

M-S-R is very concerned that the proposed definition of "replacement electricity" set forth in § 95802(a)(237) and applied in § 95852(b)(3) negates all the benefits of renewable energy contracts, pits two important State policies against each other, and imposes a significant and unwarranted additional compliance burden on first deliverers of renewable electricity.

As more fully explained herein, this proposed definition unduly constrains the resources available to compliance entities for firming and shaping their renewable energy contracts for delivery into California. Such practices are not only commonplace with regard to renewable contracts, but contemplated by the legislature and regulators for purposes of the RPS.

However, with the current proposed restriction that would require that "[t]he 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

2 At the onset, M-S-R notes that the term "replacement electricity" is a misnomer that implies a type of transaction that calls for electricity from renewable generation resources to be "replaced" rather than used to serve end-use customers.

Area" would exclude many existing RPS-eligible contracts. M-S-R urges CARB to closely review the ramifications of this restriction and delete the entire last sentence of the proposed definition. This definition attempts to disassociate RPS-eligible electricity from the underlying contracts, which is problematic. M-S-R is joined in this request by several other utilities, including the Joint Utilities,[3] as inclusion of this restrictive definition negates the efficacy of RPS-eligible contracts, increases Cap-and-Trade Program compliance costs, and is contrary to the RPS goals of the State, all without meeting any of the AB 32 policy objectives.

M-S-R, on behalf of its members, has made considerable investments in contracts and ownership interests in renewable energy resources that meet all of the State's requirements for RPS compliance. These arrangements are usually more costly than traditional gas-fired generation, but were entered into for purposes of meeting RPS and GHG emissions reduction mandates. These contracts, however, are typically with generation facilities that are located within a Balancing Authority (BA) other than the BA where the member utilities are located, requiring agreements for firming and shaping of the resource to facilitate hourly scheduling requirements when scheduling from one BA to another. The firming and shaping agreements do not impact or change the output from the renewable resources, nor does the source of the "replacement electricity." Over time, the amount of energy scheduled into California from these agreements is trued up on a MWh for MWh basis, and the location of the "replacement electricity," frequently located outside of the BA where the renewable resource is located, does not change the generation from the facility.

B. The Definition Places Undue Reliance on the Intra-Balancing Authority Restriction and Accuracy of the E-Tag for Tracking Purposes.

The provisions of the proposed definition requiring that the first point of receipt on the NERC E-tag for replacement electricity be located in the same BA as the renewable resource is a needless complication that serves no purpose in ensuring GHG reductions, facilitating tracking and verification of the renewable resources, or furthering the state's RPS and GHG reduction

3 By separate letter dated August 10, 2011, the Joint Utilities, comprised of the California Municipal Utilities Association, Los Angeles Department of Water & Power, Liberty Energy, Modesto Irrigation District, Northern California Power Agency, Pacific Gas & Electric Company, PacifiCorp, Sacramento Municipal Utility District, San Diego Gas & Electric Company, Sierra Pacific Power Company, Southern California Edison Company, Southern California Public Power Authority, and the Turlock Irrigation District, urge CARB to review this provision and to make the proposed revisions addressed therein.

goals. Indeed, the proposed definition reflects a fundamental misunderstanding of the function of firming and shaping and must be modified to reflect the zero net replacement energy result of the firming and shaping function.[4] CARB staff has stated that an intra-balancing authority requirement is necessary in order to facilitate tracking and verification of these agreements. M-S-R notes that this reliance on the veracity of an E-tag to verify and confirm the source of electricity is misplaced. Rather, these arrangements are already tracked through the Mandatory Reporting Regulation (MRR) in a manner that accurately documents the renewable resource. Accordingly, the simplest solution to resolve the tension that this definition would create between the RPS and GHG reduction goals is, as proposed above, to strike the last sentence of the proposed definition in both the Cap-and-Trade Regulation and the MRR, and utilize the provisions of the MRR reporting and verification process to confirm these deliveries.

To be clear, the mere existence of a NERC E-tag does not reflect the underlying agreements, nor lend itself to accurately tracking renewable energy credits and GHG emissions. Additionally, E-tags, especially those of intermittent sources, do not represent actual generation. Rather, the E-tags are designed to facilitate identification and communication of interchange transaction information. The key to understand is that E-tags represent an interchange schedule between BA's, and they do not represent a contractual agreement between the source and the sink. Instead E-tags are a method of communication so that in the event a reliability concern arises, schedule curtailments can take place and all parties involved can be aware of the changes. Accordingly, NERC E-tags do not represent many of the contracts or ownership arrangements between the utilities, the renewable generation resource, and the source of the replacement electricity. Similarly, a first deliverer who buys power on an electronic exchange such as Intercontinental Exchange, at the California Oregon Border, is entering into a purchase of unspecified power from a third party. This third party may have multiple generation resources or none at all, and is simply purchasing the energy from someone else. When a first deliverer is

4 It is important to point out that the essence of "firm and shaped" agreements utilized by utilities is that the utility receives the project's wind energy output on a MWh for MWh basis. However, because the wind energy output is intermittent, but by contract is delivered on a scheduled basis, it means that some of the time the project's output is less than the scheduled delivery and that some of the time the project's output is greater than the schedule delivery. In turn, this means that the difference between output and delivery is either absorbed by, or made up by, incrementing and decrementing load following units. Load following units are most likely to be hydro or thermal. Under the balancing terms of these agreements, the increments and decrements to load following units sum to zero, and there is zero net replacement electricity.

contracting for this power they are not contracting for electricity from a specific generation resource with a specified emissions output, yet a NERC E-tag must be created to facilitate the BA's ability to manage its net interchange. Ultimately, this NERC E-tag may be sourced to a coal facility in Montana, a hydroelectric generation facility in British Columbia, or any number of other sources. Very rarely will the NERC E-tags accurately reflect the source of the generation set forth in the contract entered into by the first deliverer and the third party. Placing a restriction on "Replacement Electricity" such that it must come from the same BA as where the renewable energy facility is located implies that the source of generation on a NERC E-tag represents a contract between the first deliverer and this source, where in fact, no contract actually exists. This restriction would likely result in market inefficiencies, driving up the cost of electricity and creating potentially higher emissions on a WECC-wide basis.

C. The Proposed Definition Would Place a Significant Additional Compliance Requirement on Covered Entities.

The following example involves an actual M-S-R RPS contract and exemplifies the magnitude of the impact that this new requirement would impose on the members of M-S-R:

Example 1: Big Horn 1

- Big Horn 1 Renewable Generation facility (Big Horn 1) is likely to produce 586,920 MWh of electricity per year (200 MW * 8760 hours * .335 capacity factor). If all of this energy is reflected on the NERC E-tag as coal generation (without regard to the actual contractual and ownership arrangements in place), it would be assigned an emission factor of 0.962, which exceeds the 0.428 emissions factor associated with unspecified power.

- Applying the definition in the Proposed Revisions, the M-S-R members, as the first deliverer of the electricity, would be responsible for the carbon compliance obligation associated with the difference, ((.962 - .428 * 586,920) = 313,415 metric tons of CO_2.

- Assuming a very modest $15 per ton of carbon[5] for the purchase of allowances, the result would be an **additional $4,701,229 per year** in compliance costs.[6]

5 The most recent indicative bids of carbon prices is around $15 per ton; however, M-S-R notes that these prices are likely to increase once the Program is implemented, and even the price of allowances purchased from the Reserve Account can exceed $40 per instrument. (Source: Evolution Markets, Inc.)

6 While each member of M-S-R is an electrical distribution utility, eligible to receive allowances from CARB under

- These additional costs have no relationship to the actual emissions associated with the arrangement. Rather, these costs are based solely on the misplaced notion that the NERC E-tag will accurately track the emissions of this power, without regard to the actual ownership arrangement in place.

- What is important to note about this example, is the fact that Big Horn 1 continues to produce its entire output of 586,920 MWh of RPS-eligible electricity during the year under the terms of the contract with M-S-R. This example assumes that the production from the Big Horn 1 only occurs at times different from those times specified in the "firmed and shaped" contract between Big Horn 1 and M-S-R; therefore as part of the true-up of the firming and shaping contract, there is ZERO net "replacement energy."

Example 2: Big Horn 2

- Big Horn 2 Renewable Generation facility (Big Horn 2) is likely to produce 146,730 MWh of electricity per year (50 MW * 8760 hours * .335 capacity factor). If all of the NERC E-tag reflects coal generation (again, without regard to the actual contractual and ownership arrangements in place), the assigned emission factor would be 0.962, rather than the 0.428 emissions factor associated with unspecified power.

- This creates a compliance obligation of 78,354 metric tons of CO_2 associated with the difference ((.962 -. 428) * 146,730).

- At $15 per compliance instrument, this would result in an a**dditional $1,175,307 per year** in compliance costs associated with this contract alone.

- Similar to Example 1, as part of the true-up of the firming and shaping contract, there is ZERO net "replacement energy."

D. Existing Procedures Undertaken Pursuant to the Requirements of the MRR Accurately Track Renewable Resources.

M-S-R understands that CARB must be able to account for electricity delivered into California and verify these transactions without needless administrative burdens. However, this objective is better met by utilizing the current reporting and monitoring practices already utilized by compliance entities with regard to renewable contracts, rather than creating artificial

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the Program, it is important to note the methodology used to calculate the number of allowances provided to each utility assumed compliance with the state's RPS mandates, and accordingly, no amount of the "cost burden" associated with this additional cost is covered by the allocated allowances.

constraints, such as the intra-balancing authority restriction set forth in the proposed definition of replacement electricity. The example set forth below tracks the steps that M-S-R undertakes for truing up and verifying its renewable transactions.

The following example explains the true-up process that is utilized by M-S-R for purposes of verifying transactions from its Big Horn 1 project:

- Step 1: The Big Horn 1 project output for January 2011 is delivered to Iberdrola (metered output).

- Step 2: Verify that the output from Big Horn 1 for January 2011 was delivered and accepted by Iberdrola (the firming and shaping entity).

- Step 3: MSR members receive delivery of firmed and shaped energy at COB during January 2011. This firmed and shaped energy is what CARB refers to as "replacement energy".

- Step 4: Compare the MWh of the November 2010 Big Horn 1 delivered energy with the MWh of January 2011 firmed and shaped energy. Confirm that the amounts are equal. (In this contract, the renewable energy is received by Iberdrola in month 1, and delivered to the MSR members in month 3 in order to have a closer true-up. The net result is zero "replacement energy".) If the two amounts are equal, the process is complete and the resulting documentation verifies the transactions.

- Step 5: If there is any mismatch in Step 4, any shortfall between the renewable energy and the firmed and shaped energy delivered is carried forward and documented for true-up in March.

Additionally, M-S-R (and each of its members) uses the provisions established in the MRR which have proven to be sufficient for purposes of this true-up and verification. The data used to complete this true-up and verification process is already developed by either the facility operator or the shaping and firming entity, and contains the information that CARB needs to verify renewable resource deliveries, where the NERC E-tags do not. Therefore, M-S-R maintains that CARB's objectives are better served by utilizing the existing process in the MRR, rather than looking to NERC E-tags and relying on arbitrary geographical boundary limitations.

E. Proposed Revision to § 95802(A)(237)

Simply put, if the underlying contractual agreements are deemed RPS eligible, they should not have a competing compliance obligation under the cap-and-trade program. The

inclusion of this restriction would preclude entities from being able to maximize their renewable energy contracts, and would result in an added compliance burden associated with renewable energy contracts that were the result of legislative mandates to *increase* renewable energy production. Maintaining this strict requirement that the renewable and firmed resources remain within the same balancing authority provides no real benefits to the state, and indeed, pits two state policies against each other. Accordingly, M-S-R recommends the following revision to § 95802(a)(237):

> § 95902(a)(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~~.

III. CONCLUSION

M-S-R appreciates the opportunity to provide these comments. M-S-R and its members are committed to meeting the emissions reductions mandated by AB32 and the obligations associated with the Cap-and-Trade Regulation. M-S-R's members are also committed to achieving an RPS of 33%. However, as drafted, the provisions of § 95802(a)(237) as applied in § 95852(b) severely hinder the ability of compliance entities to meet these dual objectives. M-S-R believes that the proposed definition is not intended to be so restrictive as to negate the economic and environmental value created by entities' RPS contracts that involve renewable resources and firmed and shaped resources located in different balancing authorities, or to rely on E-tags for a purpose for which they were not intended. M-S-R stands ready to work with Staff to correct the misconceptions that led to the development of the definition.

Respectfully submitted,

Martin Hopper
General Manager
M-S-R Public Power Agency