ORA

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THE OFFICE OF RATEPAYER ADVOCATES' COMMENTS ON THE PROPOSED AMENDMENTS TO THE CALIFORNIA CAP ON GREENHOUSE GAS EMISSIONS AND MARKET-BASED COMPLIANCE MECHANISMS

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I. INTRODUCTION

The Office of Ratepayer Advocates (ORA) is the independent consumer advocate within the California Public Utilities Commission (CPUC), with a statutory mandate to obtain the lowest possible rates for utility services consistent with reliable and safe service levels. ORA also advocates for consumer protections related to utility service and for cost-effective approaches to achieving California's environmental goals.

ORA supports the efforts of the Air Resources Board (ARB) Staff to develop regulations for the extension of the Cap-and-Trade Program (Program) beyond 2020, while recognizing complementary policies in California to reduce Greenhouse Gas (GHG) emissions by 2030 and beyond. As stated in the Initial Statement of Reason: "AB 32 also requires ARB to work with other jurisdictions to identify and facilitate the development of integrated and cost-effective regional, national, and international GHG reduction programs."[1]

II. DISCUSSION

A. Aligning the State's Policies and Regulations

ORA provides the following comments intended to support the alignment of ARB's proposed amendments to the regulations with the state's current and future policies for reducing GHG emissions. ORA focuses in particular on developing strategies that minimize the cost impact on California's ratepayers, while maximizing the benefits from their investments in current and future programs to achieve the state's GHG reduction goals.

1. ARB Should Align its Current Cap-and-Trade Accounting Rules with California's Renewable Portfolio Standard (RPS) Program.

The CPUC and the California Energy Commission (CEC) are required to implement the RPS program to attain 20 percent of total sales of electricity in California from eligible renewable energy resources by 2013, 33 percent by 2020, and 50 percent by 2030.[2] The RPS statute identifies the electricity products that are eligible to comply with the RPS procurement

[1] Staff Report: Initial Statement of Reasons, August 2, 2016 (ARB Staff Report), p. ES-1.

[2] Public Utilities Code Section 399.11 (a).

requirements.[3] The CPUC and the CEC track RPS procurement through Renewable Energy Credits (RECs) that are assigned to eligible renewable generation.[4] The RPS program allows procurement of renewable resources through three portfolio content categories (PCC or buckets): (1) PCC1, applicable to directly delivered electricity-facilities with a first point of interconnection within the California Balancing Authority (CBA) or with generation scheduled in the CBA; (2) PCC2, applicable to incremental electricity and substitute energy; and, (3) PCC3, electricity products not qualifying for the first two categories, including unbundled RECs.[5]

Under ARB's Cap-and-Trade program, entities that import electricity to California are responsible for the GHG emissions associated with those imports.[6] If the imported electricity is procured from a "specified"[7] source of electricity outside of California, then the associated emissions compliance obligation is equal to known emissions. If the electricity is imported from an "unspecified" [8] source, then the emissions compliance obligation is determined by multiplying a default emission factor (0.428 MTCO2e/MWh) by the amount of electricity (MWh) delivered.

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[3] Public Utilities Code Section 399.16.

[4] Public Utilities Code Section 399.21.

[5] Public Utilities Code Section 399.16.

[6] Electricity that is "directly delivered" into California should qualify for PCC 1 of the RPS. ARB requires that imported electricity must meet any of the following criteria to to be considered directly delivered into California:
(A) The facility has a first point of interconnection with a California balancing authority;
(B) The facility has a first point of interconnection with distribution facilities used to serve end users within a California balancing authority area;
(C) The electricity is scheduled for delivery from the specified source into a California balancing authority via a continuous physical transmission path from interconnection of the facility in the balancing authority in which the facility is located to a sink located in the state of California; or
(D) There is an agreement to dynamically transfer electricity from the facility to a California balancing authority." https://www.arb.ca.gov/cc/reporting/ghg-rep/regulation/mrr-2013-clean.pdf.

[7] "Specified source of electricity" or "specified source" means a facility or unit which is permitted to be claimed as the source of electricity delivered. The reporting entity must have either full or partial ownership in the facility/unit or a written power contract to procure electricity generated by that facility/unit. Specified facilities/units include cogeneration systems. Specified source also means electricity procured from an asset-controlling supplier recognized by the ARB." Title 17. Public Health--Division 3. Air Resources--Chapter 1. Air Resources Board--Subchapter 10. Climate Change-- Article 2. Mandatory Greenhouse Gas Emissions Reporting--Subarticle 1. General Requirements for Greenhouse Gas Reporting).

[8] "Unspecified source of electricity" or "unspecified source" means a source of electricity that is not a specified source at the time of entry into the transaction to procure the electricity." *Ibid*

Under the state's RPS program requirements, a utility may meet its compliance obligations in part, by purchasing low-emission or carbon-free power generation outside of California that is never delivered to serve load into the state. Under such instances, as is the case under PCC 2 of the RPS program, a utility can apply an RPS Adjustment factor,[9] which would reduce the utility's GHG compliance obligation under Cap-and-Trade regulations.

The ARB's Final Statement of Reasons notes that:

> "ARB included the RPS adjustment for the specific purpose of reducing the cost of RPS compliance that would be born directly or indirectly by entities that must comply with California's RPS program. The adjustment is impartially applied to any electricity importer that meets the requirements in section 95852(b)(4) of the cap-and-trade regulation to deliver RPS electricity used for RPS compliance."[10] [11]

Utilities are allowed to meet RPS program goals using RPS PCC 2 as defined in Section 399.16 (b) (2) of the Public Utilities Code. [12] The power that serves load in California procured as PCC

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[9] The RPS adjustment is calculated as the product of the default emission factor for unspecified sources factor (0.428 $MTCO_{2e}$/MWh) multiplied by the amount of imported electricity subject to specific requirements under ARB's regulations. *Ibid.*

[10] ARB Final Statement of Reasons for Rulemaking: Public Hearing to Consider Adoption of Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions. October 28. 2011, pp. 365-375.

[11] Reference Section 95852(b)(4): RPS adjustment: Electricity procured from an eligible renewable energy resource reported pursuant to MRR must meet the following conditions to be included in the calculation of the RPS adjustment:

(A) The electricity importer must have: 1. Ownership or contract rights to procure the electricity and the associated RECs generated by the eligible renewable energy resource; or 2. A contract with an entity subject to the California RPS that has ownership or contract rights to the electricity and associated RECs generated by the eligible renewable energy resource, as verified pursuant to MRR.

(B) The RECs associated with the electricity claimed for the RPS adjustment must be placed in the retirement subaccount of the entity subject to the California RPS, and party to the contract in 5852(b)(4)(A), in the accounting system established by the CEC pursuant to PUC 399.25, and designated as retired for the purpose of compliance with the California RPS program within 45 days of the reporting deadline specified in section 95111(g) of MRR for the year for which the RPS adjustment is claimed.

(C) The quantity of emissions included in the RPS adjustment is calculated as the product of the default emission factor for unspecified sources, pursuant to MRR, and the reported electricity generated (MWh) that meets the requirements of this section, 95852(b)(4).

(D) No RPS adjustment may be claimed for an eligible renewable energy resource when its electricity is directly delivered.

(E) No RPS adjustment may be claimed for electricity generated by an eligible renewable energy resource in a jurisdiction where a GHG emissions trading system has been approved for linkage by the Board pursuant to subarticle 12.

(F) Only RECs representing electricity generated after 12/31/2012 are eligible to be used towards the RPS adjustment.

[12] Under RPS rules, one of the portfolio content categories of eligible renewable energy resources, as defined in PU Code 399.16 (b) (2) is: "Firmed and shaped eligible renewable energy resource electricity

2 can be firmed and shaped (using incremental electricity and substitute energy). However, under ARB's current accounting rules, while PCC 2 renewable power is eligible to meet the RPS program goals for renewable power, a utility may be assigned a GHG compliance obligation for the PCC 2 renewable power.

Due to differences in treatment of such imported power under RPS program rules and the ARB regulations, ratepayers are at risk for paying for GHG compliance resulting from RPS procurement. Under ARB regulations, covered importers of renewable power are required to report and surrender the RECs associated with the imported power in order to claim the RPS adjustments. However, if the imported renewable power is firmed and shaped, ARB does not allow the importer who owns the RECs to claim the RPS adjustment. Instead, the electricity is assigned the default emission factor for unspecified power and is subject to a GHG compliance obligation pursuant to ARB accounting rules. In this situation, after paying a renewable premium for RECs in compliance with the RPS program, an importing utility (and therefore its ratepayers) is still obligated to pay GHG compliance costs pursuant to ARB rules.

In addition, in the event that a third-party purchases and imports null power (renewable power without the RECs), the imported power is assigned a zero emission factor with no Cap-and Trade compliance obligation. In this situation, despite the fact that the null power is considered and priced as "brown" or non-renewable power under RPS program rules because the RECs have been stripped, the third-party importer has no GHG compliance obligation per the ARB rules, yet the utility that purchased the power for its RECs is not allowed to use the RPS adjustment.[13]

While ARB is correctly concerned about accurate accounting of GHG emissions from imported power serving load in California, accurate accounting should not preclude the application of rules that complement the existing RPS regulations, and should not impose additional emissions compliance costs on ratepayers without providing commensurate value. The CPUC and CEC track RPS procurement through RECS. ARB should require entities importing null power (i.e. renewable power without RECS) to procure GHG compliance instruments. Similarly, utilities importing renewable power under PCC 2 should be allowed to claim the RPS adjustment, as long they surrender associated RECs. ORA recommends that ARB staff consider the recommendations proposed by the investor-owned utilities regarding RPS Adjustments provided in response to ARB's questions at the ARB/Joint Utilities Group meeting held in March of 2016.[14]

ARB included the RPS adjustment for the specific purpose of reducing the cost of RPS compliance. Maintaining the RPS adjustment under the Cap-and-Trade regulation is crucial not only to ensure that ratepayers are not forced to pay twice for complying with the state's GHG

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products providing incremental electricity and scheduled into a California Balancing Authority."

[13] Thus, the GHG compliance costs are passed on to ratepayers when (1) a utility imports renewable electricity under RPS PCC 2 to comply with RPS goals, and the underlying power is delivered into California by a third-party; and (2) a utility imports renewable electricity to comply with RPS goals, but the renewable power is not delivered to California, and firmed and shaped power is delivered instead.

[14] https://www.arb.ca.gov/cc/capandtrade/meetings/informal/pg_e_comment_7.pdf

Cap-and-Trade regulations, but also to maintain the benefits of Californians' investments in clean energy.

2. The ARB Should Retain the Renewable Portfolio Standard Adjustment Post-2020

ARB Staff proposes to discontinue the RPS adjustment after 2020 and replace it with allowance allocations for each electricity distribution utility (EDU). ARB indicates that the regulation was extremely difficult to track and enforce, stating that:

> "in part because to avoid double counting the Regulation could only allow RPS adjustments to be taken in cases in which the electricity associated with the RECs was not directly delivered to California. It can be difficult for entities to know if the electricity was directly delivered, and there was also widespread misuse of the direct delivery requirement because of misinterpretations of the Regulation (e.g., that one could choose not to specify a source of imported electricity and then use the RECs associated with that electricity for an RPS adjustment). Further, when there are multiple purchasers of electricity and RECs from renewable resource, it is difficult to determine which RECs are associated with which electricity."[15]

ARB Staff "proposes to modify the Regulation to provide each electrical distribution utility (EDU) with an allowance allocation that accounts for RPS-eligible electricity that is purchased together with RECs but cannot be directly delivered to California, and eliminate the RPS adjustment from the Regulation."[16] While the ARB staff proposal may alleviate reporting and verification difficulties and the double counting of zero emission electricity, it is not clear how the proposed allowance allocation for each EDU would resolve the current disparity between the RPS goals and Cap-and-Trade accounting rules. More importantly, it is not clear how this approach will impact ratepayers in terms of compliance costs associated with meeting the RPS goals and complying with Cap and Trade rules.

ORA recommends that ARB and the CPUC coordinate to assess the full impacts of the proposed methodology on ratepayers prior to discontinuing the RPS adjustment. This coordination could be met through a joint agency workshop to identify the issues and possible remedies. Potential drawbacks from discontinuing the RPS adjustment might result in higher compliance costs passed onto ratepayers, increased difficulty of achieving RPS goals, and increased emission leakage through imports.

B. Aligning Accounting and Treatment of GHG Emissions between the ARB, an Expanded California Independent System Operator (CAISO) and the Energy Imbalance Market (EIM)

The ARB Staff Report highlights some inconsistencies in GHG emissions accounting associated with electricity imported into California through the Energy Imbalance Market (EIM). As stated in the report: [17]

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[15] ARB Staff Report, p. 53.

[16] ARB Staff Report, p. 53.

[17] ARB Staff Report, p. 51.

> [t]he EIM cost optimization model sometimes identifies zero emissions power as dispatched to California before high-emitting resources are deemed dispatched to the State when there is a load imbalance. Clean out-of-State resources (e.g., hydropower), are "deemed delivered" to California, and the Cap-and-Trade Regulation assigns the scheduling coordinator for those resources with a compliance obligation. The model's "deemed delivered" result is treated as determining that resource as a source for a specified power import. However, in certain instances, the full transfers that support balancing load to California are not identified and accounted for in the Cap-and-Trade Program, resulting in emissions leakage.

This inconsistency occurs when clean resources with lower deemed-delivery bid prices are selected for "deemed-delivery" to California, while higher-emitting power plants with a higher deemed-delivery bids are the actual plants dispatching to serve California load.

The report distinguishes between "deemed-delivery" as used in the EIM algorithm and the actual resource that is dispatched to serve California load. The report further clarifies that under Cap-and-Trade regulations, ARB accounts for the total GHG emissions in California, including all GHG emissions from the electricity delivered to and consumed in the state.

ARB staff proposes to retain the current point of compliance of the CAISO participating resource scheduling coordinator, but to supplement that compliance obligation with an additional compliance obligation on entities that purchase from EIM ("EIM purchasers") to serve load in California. As stated in the report: "the total supplemental compliance obligation for all EIM purchasers would be calculated based on the annual metric tons of CO_2e from electricity that is experienced by the atmosphere to serve California load through CAISO's EIM, but not otherwise accounted for by emissions reported by the EIM participating resource scheduling coordinators. Each EIM purchaser's compliance obligation will be calculated as the ratio of their EIM purchases (MWh-basis) to the total EIM load to serve California (also measured in MWh). This accounting would ensure that the full emissions associated with serving California are accounted for, and attributed entirely to entities that are engaged in serving California load."[18]

1. The ARB Should Ensure that the CAISO EIM Model is Modified to Account for GHG Imports into California Consistent with Cap-and-Trade Regulations

ARB's proposed modification (specifically adding compliance obligations to EIM purchasers) might allow ARB to account for GHG emissions associated with imports to California, but would not address the crucial problem underlying the CAISO EIM model. It appears that the EIM cost optimization model does not assign (or consider in the model run) the accurate GHG adder to the actual resource dispatched to California. This might result in renewable resources with no compliance obligations under Cap-and-Trade being identified as the dispatched resources (deemed-delivery) to California, while the actual California load is served by high-emitting resources, which consequently will be assigned compliance obligations under Cap-and-Trade regulations.

[18] ARB Staff Report, p. 52.

The current design of the CAISO EIM model could result not only in higher GHG emissions in California resulting from mischaracterized imports, but also higher Cap-and Trade compliance costs, which are ultimately borne by California's rate-payers.

The CAISO EIM model should be further developed to include the necessary constraints in order to reflect the actual resources that are selected to serve California load.

2. ARB Should Align the Proposed Amendments to Cap-and-Trade Regulations with the RPS program.

The ARB's proposal to address the EIM and proposed expansion of the CAISO to include other Balancing Authority Areas (BAAs) in the west explains that:

> "emissions leakage occurs when it appears there has been a GHG emissions reduction through accounting for California program purposes, but the atmosphere did not actually experience that real GHG reduction." [19]

While ORA agrees with ARB's explanation of the emissions leakage under this context, it is not clear if ARB is characterizing the emissions resulting from meeting RPS goals with PCC2, as discussed above, as "leakage." ORA recommends that ARB align its accounting of GHG emission reductions associated with PCC2 with RPS regulations. As stated earlier, ratepayers should not pay twice for complying with the state's RPS and Cap-and Trade regulations.

In the instances where an EIM purchaser imports renewable power to meet RPS goals, pursuant to PCC2 rules, the EIM purchaser should be allowed to claim the RPS Adjustment under current Cap-and-Trade Regulations, given that the EIM importer surrenders the RECs associated with that power.

If ARB rules are not accurately aligned with existing RPS program rules, GHG compliance costs passed on to ratepayers may increase due to this misalignment, even ~~thought~~though there ~~maybe~~may be no increase in GHG emissions.

III. CONCLUSION

Both the RPS and Cap-and-Trade programs are designed to combat climate change. Through these programs, the electric sector currently makes significant contributions toward meeting California's GHG reduction goals. The ARB's regulations should recognize and enhance the value that customers provide through their electric rates that include the cost of these programs. As explained above, the ARB can do this in two ways. First, the ARB should revise its accounting procedures in order to credit RPS investments intended to reduce GHG emissions so that ratepayers do not pay once for RECs and then again for GHG compliance instruments. Second, the ARB should resolve EIM design issues that can result in ratepayers paying a premium for low-emitting resources.

Please contact Ayat Osman (ayat.osman @cpuc.ca.gov or (415) 703-1567) with any questions regarding these comments.

[19] ARB Staff Report, p. 51.

/s/ Julie Halligan

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