

DOCKETED

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Filer:	John Newton
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**STATE OF CALIFORNIA
CALIFORNIA ENERGY COMMISSION**

IN THE MATTER OF:

Rulemaking to Amend Regulations
Governing the Power Source Disclosure
Program

DOCKET NO. 21-OIR-01

RE: Power Source Disclosure

**EAST BAY COMMUNITY ENERGY AUTHORITY'S
COMMENTS ON THE PRE-RULEMAKING PROPOSED UPDATES TO
THE POWER SOURCE DISCLOSURE REGULATIONS**

John Newton
Principal Regulatory Manager
East Bay Community Energy
1999 Harrison St, Suite 2300
Oakland, CA 94612
(510) 641-0807
jnewton@avaenergy.org

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East Bay Community Energy (“EBCE”) is a public agency serving customers in Alameda and San Joaquin Counties, providing electric generation service to approximately 640,000 accounts across residential and commercial customers.¹ We provide renewable energy at competitive rates for our customers.

EBCE supports the comments submitted by the California Community Choice Association, of which EBCE is a member. EBCE provides these additional comments to raise more specific concerns regarding hourly emissions reporting.

1. INTRODUCTION

EBCE supports the objective of Senate Bill (“SB”) 1158 to ensure more accurate, reliable, and simple-to-understand information on the sources of energy and associated greenhouse gas (“GHG”) emissions used to provide electric service. EBCE applauds the Energy Commission’s efforts to identify and execute on a practical plan to effect SB 1158’s vision, with final regulations in 2024 and expected implementation in 2028, as reflected in the *Staff Report on Power Source Disclosure Proposals on Hourly and Annual Accounting and Proposed Updates to*

¹ EBCE expects this figure to grow to approximately 760,000 in 2025.

the Power Source Disclosure Regulations presentation (collectively, the “Proposal”).² While the final regulatory framework is not expected to be implemented until 2028, the proposed changes will likely affect near-term contracting between load serving entities and generators.

EBCE offers the following recommendations to the Proposal:

- The hourly emissions attribution process should allow retail sellers flexibility in aligning GHG-free and renewable energy generation with load where other sources of accurate load-matching data is not available.
- The Energy Commission should replace the 0.428 CO₂e assumption for unspecified system emissions with variable hourly emissions levels as hourly emissions accounting program evolves and in light of changing emissions profiles of generation across the West.
- The Energy Commission should bring forward an hourly meter data enhancement to the WREGIS system leading up to the 2028 implementation of hourly emission accounting.
- The Energy Commission should incorporate an emission accounting methodology that reflects the emissions reduction benefits of renewable generating resources paired with energy storage; specifically, the ability of paired storage to absorb excess solar in the middle of the day and discharge clean energy at later times.

2. PROPOSED HOURLY ACCOUNTING METHODOLOGY

a. Loss-Adjusted Load and Loss Accounting

EBCE requests clarification on how the default loss-factors (which apply to all hours) are expected to impact system emissions from over-supply and under-supply generation as the level

² As found in CEC Docket 21-OIR-01, Staff Report (TN# 252318) and Presentation (TN# 252405).

of net imports and exports vary across hours and across the year. As California often changes from being a net importer to a net exporter of energy, the amount of energy serving California load may rely heavily on out-of-state energy sources. Depending on the hour, the level of emissions from out-of-state energy from one hour to another can vary significantly. There are also seasonal impacts to transmission and distribution losses, e.g., from extended periods of elevated ambient temperatures across the West in late summer months relative to cooler winter months. In light of these variables, under what circumstances would the Energy Commission consider revisiting the default loss-factors?

b. Hourly Load Matching

EBCE appreciates the general framework outlined in the Proposal for comparing specified procurement and load on an hourly basis. Several obstacles must be overcome to make this framework feasible.

The nature of the contractual relationship between a load-serving entity (“LSE”) and a generator may result in uncorrectable information and reporting gaps. This would apply both for imported energy and where an LSE is not the scheduling coordinator for a generation resource within the California Independent System Operation (“CAISO”). Even for LSEs that are scheduling coordinators of their own demand and supply (i.e., generation) resources, aligning hourly load to generation from specific portfolio resources may be very challenging. The volume of data that must be compiled and interpreted will be onerous or impossible for any LSE lacking advanced technical and computing capabilities.

The challenge will be exacerbated when renewable energy is re-sold multiple times. In this common transaction structure, the renewable energy is provided from a counterparty/seller that is not the generator or the generator’s scheduling coordinator and meter data (either the

portion related to a specific transaction or in aggregate form) will be required to pass through multiple entities’ “hands” before it reaches the ultimate buyer. A real-world example of this challenge exists in the California investor-owned utilities’ (“IOU”) approach to selling bundled energy and portfolio content category 1 (“PCC1”) renewable energy certifications (“RECs”) from their portfolios. Those bundled energy and PCC1 REC sales are transactions for yet-to-be generated energy and the associated PCC1 RECs in which title to electricity and REC flow from the generator to the applicable IOU then to the ultimate buyer, with the added complexity that many transactions can take place between IOU and “ultimate buyer;” all before a single megawatt of electricity is generated.

The suggestion that CAISO data may serve as a proxy for resource-specific hourly generation information may be fruitful, but it does not address resources that are not participating in or otherwise connected to the CAISO-controlled transmission system. In those instances, EBCE submits that scheduled energy transfers between balancing areas documented in an e-Tag³ are valid and appropriate evidence that electricity was generated from a specific source and delivered to a specific load serving entity. An e-Tag will typically define the generation resource, the volume and time period⁴ of electricity delivered, and may define the ultimate recipient of the electricity. The recipient may appear in the sink field within the e-Tag or in the physical delivery path, as is the case for electricity being delivered to load serving entities participating in the CAISO market. An ultimate goal of hourly emission reporting should be that retail sellers be able to reflect the GHG emission value of resource-specific, contracted energy generation for each contract—not merely by using a proxy based on generic technology or location information.

³ A North American Electric Reliability Corporation (“NERC”) e-Tag is also referred to as Interchange Transaction Tag as defined in NERC’s Version 0 Reliability Standards. *See* https://www.nerc.com/pa/Stand/Version%200%20Reliability%20StandardsRD/Glossary_Clean_1-07-05.pdf

⁴ The time period typically shows start and end time of delivered energy, but not hourly delivery information.

While the market adapts to the need for hourly renewable energy generation data, the Energy Commission should explore allowing retail sellers some level of flexible emission attribution for the generation under contracts that do not currently support hourly delivery or reporting.

c. Undersupply and Oversupply

EBCE is unclear how the Proposal would reflect avoided emissions in the event of oversupply. It appears that avoided emissions may be part of the hourly reporting that a retail seller provides, but it is not clear whether avoided emissions would be shown or used otherwise.

d. GHG Emissions Attribution

EBCE appreciates the objective of comprehensively accounting for all energy generation emissions as a foundation for the Proposal's emissions counting. The distinction between specified resales and energy procured but not matched to load is not entirely clear. EBCE asks that the Proposal be clarified to provide greater specificity regarding what constitutes a specified resale that would transfer the emissions from one portfolio's 'source' to another's 'sink,' and how this transfer reflects the actual energy flow as compared to other types of transfers.

The Proposal is rightly concerned about the risk of emissions leakage from fossil-fueled and other non-GHG-free generating resources. However, EBCE is concerned that the Proposal would not adequately reflect (and give credit to the procuring entities for) the abundance of GHG-free energy that California-driven policies will make available during hourly periods of oversupply across the West as we transition to ever-more renewable and GHG-free generating technologies. The issue arises from the use of a static system emissions assumption of 0.428 CO₂e for system emissions that might be avoided by another retail seller's over-supply. The unspecified system emissions assumption should be replaced with unspecified emissions for each

hour determined based on the hourly emission reporting that this program will require. While retail sellers might continue to use a non-varying unspecified emissions factor for forward procurement and forecasting, the annual emissions accounting should incorporate actual emissions data (or historical generation data as a key to assign emissions data from unspecified generation sources).

e. Stacking Order of Hourly Resources

EBCE appreciates the flexibility offered by the Proposal for retail suppliers to reflect their preference in determining the stacking order of energy portfolio emissions. EBCE notes that CAISO operational generation dispatch should be expected to differ substantially from either of the examples shown in the Proposal.⁵ This divergence may cause a mismatch for aligning actual hourly emissions paired with served load.

f. Hourly Unspecified Power Emissions Factors and Avoided GHG Emissions

Regarding periods of under-supply and over-supply, the hourly emissions intensity of unspecified resources will depend on a variety of factors including the time of day, the season, and system conditions across the West. California continues to drive the development of more and greater varieties of renewable generation in our State but also across the West. The Proposal should be revised, as recommended in section # above, to include hourly emissions variation from unspecified resources and as the West-wide generating fleet continues to evolve. For example, the Energy Commission could perform an accounting of actual hourly unspecified emissions over the preceding year in preparing the annual emissions accounting, to the extent there is visibility.

⁵ See Proposal, Figure 3, page 11.

g. Estimating Unavailable Hourly Data Using Distribution Proxies

Existing renewable energy contracts often do not require an hourly accounting of generation or may have delivery periods that do not match needs arising from hourly emission reporting such as hourly shapes or load-matching. This issue is especially relevant in the current IOU bundled REC sale structure in which volumes of bundled electricity and RECs have been sold for terms as long as ten years; these contracts do not require the IOU to provide any hourly reporting granularity and the introduction of an hourly component to emissions reporting unfairly favors the IOU bundled energy and REC reselling these products as they may elect to “keep” more valuable renewable generation hours and only deliver bundled energy and RECs to their off-takers in low value periods, like the middle of the day. Retail sellers will find it necessary to revisit existing contracts if other sources of data do not become available or if the new regulatory framework fails to address existing contract structures that will allow for “cherry-picking” what emission free energy is delivered to buyers.

Acknowledging that hourly data may not be obtainable, the Proposal offers to use proxy hourly generation data from either the CPUC’s Clean System Power calculator or to develop proxy hourly generation profiles from CAISO hourly supply data. Either of these seem like a workable solution to the problem of unobtainable hourly generation data for the purpose of forecasting and anticipating a retail seller’s hourly available renewable energy to match with its load. The CSP calculator generation profiles do not provide for much intra- or inter-regional variation. Because the CAISO hourly supply data would be expected to better reflect actual generation, albeit in aggregate, EBCE recommends that the CSP calculator generation profiles be used only as a backup where CAISO data cannot be used for proxy generation profiles. Whatever method the Energy Commission ultimately adopts, the profiles should be accessible for retail

sellers and provide for some periodic adjustment to align with actual generation profiles should the proxies need returning.

h. Accounting for Renewable Generation Used to Charge Storage then Delivered to the Grid at Later Hours

EBCE's recommendation to incorporate hourly generation details into RECs will greatly improve the ease of hourly reporting but on its own does not adequately address the emissions benefit of storage being added to the grid or renewable generation resources constructed with co-located or hybrid storage. Renewable generation resources constructed with co-located or hybrid storage must be allowed to use the combination of RECs and/or generating resource hourly meter data *and* the meter data from the paired storage resource to demonstrate that battery discharged energy is emission-free. Meter data or PI meter data,⁶ as an industry-standard accepted proxy for meter data, can easily demonstrate that power flowing out of a renewable generating resource was immediately 'consumed' (i.e., charged) by a hybrid or co-located battery; the battery's meter data or PI meter data can demonstrate when the emission-free energy is later discharged. It is of utmost importance that the ability of storage to shift excess renewable generation from co-located and hybrid resources from low value times of day to times of day when the energy and associated emissions reduction is more valuable be reflected in the hourly emission accounting methodology.

EBCE further believes that the emissions reduction benefits of stand-alone generation and stand-alone storage contracted to an individual entity should be reflected in the CEC's hourly emissions accounting standards. In the same way that paired solar and storage meter data can

⁶ "PI" is a software solution owned by Areva. The software connects to generating resource SCADA and can provide near real-time reporting on many facility characteristics including metered output. *See* <https://www.aveva.com/en/products/plant-scada/>

demonstrate that excess generation is used to charge the on-site battery, load serving entities must have the right to model our stand-alone generation and storage resources to perform the same emission reduction management. In the cases of standalone resources modeled and dispatched together, load serving entities should be permitted to use the hourly meter data from those resources as evidence of emission-free dispatch of the storage resource and to “subtract” the emission-free energy accounted from the generation resource in the same manner as with hybrid and co-located projects.

3. PROPOSED DATA COLLECTION MODERNIZATION

a. Annual Data Collection and Processing

EBCE appreciates the description of expected improvements to reporting workflow data processing in the Proposal.

Currently, all REC-based accounting and reconciliation is performed in the Spring with the bulk of it occurring in May. Moving to an hourly emission reconciliation process will substantially increase the effort and complexity of this already highly involved task. It may not be feasible to maintain a June 1 report submission deadline, all other timelines remaining constant.

In light of the exponentially greater data volumes for hourly emission accounting compared to current practice, it may be necessary during the transition to the new system to implement additional procedural steps to allow for a smooth transfer of information. For example, the data collection process should allow for updated information submission after the base submission deadline where a retail seller discovers issues with the initial upload. The increased volume and complexity of the hourly reporting data may lead to a significant increase in data errors that likely would require more time to correct.

i. Generating Power Content Labels

EBCE appreciates that greater automation leveraging the Energy Commission's integrated analytical platform promises to simplify the administrative effort of the Power Source Disclosure reporting process. EBCE trusts that there will be ample opportunity to review the data flow and calculations by stakeholders to ensure transparency and accuracy in the analysis. It would not be an improvement to replace existing processes with a black box.

b. Hourly Data Collection and Processing

The Proposal lists a variety of raw data that retail sellers will need to provide. The ongoing lack of data availability will remain a significant challenge for the hourly emissions reporting program. As noted above, WREGIS does not track RECs on an hourly basis; many generators are not contractually obligated to deliver (or otherwise provide) renewable generation at specific hour intervals but only on an annual basis; and it may never be feasible for retail sellers to obtain this more granular information, let alone actual delivery, from currently contracted generating resources on an hourly basis.

If generators can be made to provide hourly generation data and the WREGIS system can be upgraded to track hourly generation when RECs are created, then a significant component of the data availability challenge would be resolved. The Energy Commission, which stands in a very different position to influence WREGIS technical development compared with retail sellers and utilities, should seek this enhancement as part of the development of the Data Submission Portal and leading up to the implementation of hourly emissions reporting in 2028. Unfortunately, recent disruptions in the WREGIS system do not bode well for such improvements. WREGIS has been marred by challenges since a major migration was announced

in October 2022. Issues stemming from this disruption include the unavailability of highly inaccurate REC creation, inconsistent reporting functionality, invoicing, and eTag matching.

4. CONCLUSION

EBCE appreciates the work of Commission Staff in developing the Proposal and looks forward to continued collaboration in achieving the necessary enhancements to support accurate hourly emission accounting.

Respectfully submitted,

/s/ John Newton

John Newton

Principal Regulatory Manager

East Bay Community Energy