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Center for Resource Solutions comments on Rulemaking to Amend Regulations Governing the Power Source Disclosure (PSD) Program

Additional submitted attachment is included below.

July 3, 2024

California Energy Commission (CEC)
Docket Unit, MS-4
Docket No. 21-OIR-01
715 P Street, Sacramento, California 95814

RE: COMMENTS OF CENTER FOR RESOURCE SOLUTIONS (CRS) ON RULEMAKING TO AMEND REGULATIONS GOVERNING THE POWER SOURCE DISCLOSURE (PSD) PROGRAM. DOCKET NO. 21-OIR-01.

Dear CEC Staff:

CRS appreciates this opportunity to submit comments in response Express Terms released May 17, 2024, in the Rulemaking to Amend Regulations Governing the Power Source Disclosure (PSD) Program. Our comments pertain specifically to replacing loss-adjusted load with retail sales, renewable energy certificate (REC) retirement for annual and hourly reporting, use of the term "avoided emissions," and the emission factors assigned to unspecified power and hourly claimed renewable generation.

BACKGROUND ON CRS AND GREEN-E®

CRS is a 501(c)(3) nonprofit organization that creates policy and market solutions to advance sustainable energy and has been providing renewable energy and carbon policy analysis and technical assistance to policymakers and other stakeholders in California for over 25 years. CRS also administers the Green-e® programs. For over 25 years, the Green-e® Energy program has been the leading independent certification for voluntary renewable electricity products in North America. In 2022, the Green-e® Energy program certified retail sales of over 114 million megawatt-hours (MWh), serving over 1.3 million retail purchasers of Green-e® certified renewable energy, including over 314,000 businesses.[1]

CRS COMMENTS

1. CRS recommends that disclosure be added to the power content label (PCL) stating that the "Total Power Content" column represents all power sources and associated emissions that a retail supplier used to cover its total annual loss-adjusted load and is not representative of a specific portfolio which represents delivered retail supply to a customer.

[1] See the 2023 (2022 Data) *Green-e® Verification Report* here for more information: https://resource-solutions.org/g2023/.

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The inclusion of the "Total Power Content" column, while containing relevant information, may be confusing to customers without information stating that this column is not solely representative of a customer's portfolio. Rather, it represents all power sources and associated emissions that a retail supplier used to cover its total annual loss-adjusted load. The inclusion of this information will prevent customers from misunderstanding that the "Total Power Content" column is representative of a specified product (resource mix and associated emissions) delivered to them.

2. CRS recommends using a different term for "avoided emission" factor, such as "Displaced Hourly Renewables" or "Hourly Null Power from Renewables."

California's PSD program represents state leadership by providing important electricity use information to end-use customers and market participants. As the PSD program also serves as a point of reference for state policy makers, the program should choose GHG terminology carefully. The Greenhouse Gas Protocol, widely accepted as the standard to measure and report emissions, characterizes "avoided emissions" as either positive or negative differences in the greenhouse gas (GHG) emissions of a product relative to the situation where that product does not exist.[2] The current Express Terms section 1392(c)(7) refers to "avoided emissions" as being attributed to a retail supplier to the extent that its oversupplied resources reduced the hourly GHG emissions factor of unspecified power, and those "avoided emissions" should not alter or adjust a retail supplier's GHG emissions intensity.[3]

Avoided emissions is not the appropriate term to use for this value. Rather, avoided emissions[4] is a commonly used term representing the net change in emissions on the grid due to generation, meaning it measures the systemic emissions impact or consequences of producing electricity. Avoided emissions of generation are typically calculated as the difference between the direct emissions of the generation likely displaced by renewable energy generation (usually generation from marginal or non-baseload resources) and the direct emissions of the generation. In contrast, in the context of section 1392(c)(7), the term "avoided emissions" is being used to refer to the oversupply of hourly renewable emissions being reassigned. Referring to this as "avoided emissions" will be confusing to customers and should be avoided. A more appropriate term for emissions assigned to renewables in oversupplied hours would be "displaced hourly renewables" or "hourly null power from renewables."

[2] Russell, Stephen. 2018. "Estimating and Reporting the Comparative Emissions Impacts of Products." Working Paper. Washington, DC: World Resources Institute. Available online at http://www.wri.org/publication/comparativeemissions.
[3] Rulemaking to Amend Regulations Governing the Power Source Disclosure Program, Section 1392(c)(7)
[4] See *Corporate and Voluntary Renewable Energy in State Greenhouse Gas Policy An Air Regulator's Guide*. (pg.4). Available at: https://resource-solutions.org/learn/policy-solutions/.

3. CRS recommends that the "avoided emissions" factor be based on a retailer's unclaimed resources in an hour, rather than assigned a fixed rate.

The MWhs that are assigned an "avoided emissions" factor should be given an emissions factor that represents all unclaimed resources in that hour. This can be done by using the average of the two other categories of supply that make up the hourly unspecified power emissions factor:[5] unclaimed in-state natural gas and excess electricity from oversupplied retail suppliers. If there is other unclaimed generation not included in those categories, it should be added. This would support the goal of the PSD program to "provide consumers a detailed view into the sources of energy and associated greenhouse gas emissions their retail suppliers used to power their homes and businesses."[6]

Using a fixed rate emissions factor creates the potential for double counting energy that has already been claimed, but this may be mitigated by using a non-static residual mix number that considers all unclaimed or unsold electricity generation attributes in a given time period (e.g. by the hour), or from which all transacted attributes and specified sales during that time period have been removed.

This approach ensures that the emissions rate accurately reflects the composition of unclaimed or publicly shared generation and attributes within the retailer's portfolio on an hourly basis, rather than a default unspecified rate.

4. CRS recommends using a residual mix emissions factor, or selecting a factor from the hierarchy outlined below, to accurately reflect the emissions associated with both hourly and annual unspecified electricity imports.

While the definition listed in section 1391 for "unspecified sources of power" or "unspecified power" or "unspecified electricity" is accurate in that it consists of dirtier energy (i.e. natural gas and other fossil fuels) that has not already been contractually allocated, the definition fails to accurately identify this unallocated power/electricity by a precise data category. Unspecified power should be assigned an emissions factor that considers all or most contractual transactions and removes those from the equation.

The emissions factor for hourly and annual unspecified purchases should represent the electricity delivered at the retail level. Unspecified power should be representative of its originating market, reflecting the electricity utilized for retail delivery rather than simply assuming the resource running on the margins. In cases where specific supplier information regarding the unspecified purchase is

[5] Rulemaking to Amend Regulations Governing the Power Source Disclosure Program, Section 1392(c)(6) Available at: https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=21-OIR-01
[6] PSD. Available at: https://www.energy.ca.gov/programs-and-topics/programs/power-source-disclosure-program

unavailable, utilizing a regional residual mix becomes necessary[7]. This mix should encompass all unclaimed generation/attributes within the organized wholesale market or eGRID subregion from which the electricity is imported or where the purchase is made.

In instances where regional residual mixes are not accessible, the following hierarchy of data should be employed as an alternative:

Data	**Source**	**Description**
Type A Residual Mix[8]	Regional generation attribute tracking systems, federal databases (e.g., eGRID, EIA)	Most accurate, all specified transactions removed
Regional fossil-only resource mixes and emissions factors	Federal databases (e.g., eGRID, EIA)	Most conservative, all renewables and other clean energy assumed to be transacted and removed
Regional voluntary-only residual mixes (e.g., Green-e® Residual Mixes)	Green-e® program	Incomplete, only removes voluntary specified transactions, double counts non-voluntary specified transactions
Regional generation adjusted for imports and exports	Federal databases (e.g., eGRID, EIA)	Double counts specified transactions, reflects regional imports and exports to approximate areas of consumption
Regional grid average	Federal databases (e.g., eGRID, EIA)	Double counts specified transactions, does not represent consumption

5. CRS recommends that the CEC request that the Western Renewable Energy Generation Information System (WREGIS) expand to track all generation and all resources, to calculate a regional residual mix, and track on a more granular level.

The CEC should consider requesting WREGIS to enhance its tracking capabilities to include all-generation data, with a more granular, hourly breakdown. This would greatly aid the CEC's PSD Program in assigning accurate emissions rates to unspecified power sources, e.g. a regional residual mix. By tracking generation on an hourly basis, the CEC could better balance out emissions associated with both oversupplied and undersupplied hours, thereby refining their methodology for hourly power source disclosure. This level of detail would not only improve transparency in understanding the

[7] Guidance for Calculating a Residual Mix, 2024. Center for Resource Solutions (CRS). Available at: https://resource-solutions.org/document/030624/

[8] Type A Residual Mix data, as defined in the CRS publication *Guidance for Calculating a Residual Mix:* "Type A is a mix of only all unclaimed or unsold electricity generation attributes in a given time period, or from which all transacted attributes and specified sales during that time period have been removed. The geographic boundary for Type A depends on the use case, either being the same market as the reporting entity or the market from which electricity is imported"

environmental impacts of electricity generation but also facilitate more informed decision-making towards achieving California's ambitious emissions reduction goals.

Sincerely,
_____/s/_____
Devon Johnson
Sr. Analyst, Policy