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Responses of The Climate Registry (TCR) Responses on proposed Pre-rulemaking Scoping Questions to PSD Regulations, Docket ID No. 16-OIR-05

Additional submitted attachment is included below.



The Climate Registry

California Energy Commission
Docket Unit, MS-4
Re: Docket No. 16-OIR-05 1516
Ninth Street Sacramento, CA 95814-5504
Submitted Electronically

March 15, 2017

Re: Responses of The Climate Registry (TCR) Responses on proposed Pre-rulemaking Scoping Questions to PSD Regulations, Docket ID No. 16-OIR-05

To Whom It May Concern:

The Climate Registry (TCR) appreciates this opportunity to provide feedback on these preliminary scoping questions on updates to the Power Source Disclosure (PSD) regulations.

TCR encourages the CEC to work to ensure that the emissions rates included on the Power Content Label (PCL) accurately reflect the attributes that customers are purchasing from their electricity suppliers. Furthermore, we encourage the CEC to format these factors in a manner that will support customers in their own voluntary greenhouse gas (GHG) reporting and reduction goals by aligning these metrics with international best practice for quantifying indirect emissions associated with energy consumption.¹

About TCR:

TCR was launched in 2007 as a 501(c)(3) nonprofit organization to continue the work of the California Climate Action Registry, which had been created by the State of California in 2001. Today, TCR operates the most rigorous voluntary GHG reporting program in North America and assists organizations in measuring, reporting and verifying corporate GHG inventories and sector specific metrics.

¹ In the Scope framework defined by the GHG Protocol for corporate GHG accounting, anthropogenic emissions resulting from the generation of acquired and consumed electricity, steam, heat, or cooling are classified as Scope 2 emissions. These emissions include all CO₂, CH₄ and N₂O emissions resulting from the combustion of fossil fuels as well as CH₄ and N₂O emissions resulting from the use of biogenic resources. CO₂ emissions from biogenic resources used for energy production must also be accounted for in an inventory, but these are reported separately from the scopes as biogenic indirect.

In 2009, TCR published the Electric Power Sector (EPS) Protocol,² which identifies a standardized calculation methodology for determining the CO₂ emissions profile of the range of power products sold by utilities. This methodology has become best practice in the U.S. for calculating and disclosing utility-specific emission factors in a consistent and comparable manner. It is also considered a best practice for electricity customers to use these metric in their own GHG inventories.³

The verified, utility-specific emission factors calculated by power providers reporting to TCR are published on TCR's website.⁴ Since the EPS Protocol's inception, five California-based electricity retail suppliers have elected to voluntarily calculate, third-party verify and report their GHG inventories and CO₂ generation and delivery metrics to TCR. Four additional suppliers report and third-party verify their inventories and CO₂ generation metrics to TCR.⁵

We believe that TCR's EPS Protocol can be used as the foundation for the methodology used to quantify the emissions intensity metrics that electric utilities will report to the CEC and their customers. TCR is available to answer any questions the CEC or CARB may have about that document.

Responses to the California Energy Commissions preliminary scoping questions on AB-1110:

Annual Sales

1. What should be the programmatic definition of "annual sales"?

Annual sales should be defined as all kilowatt-hours sold at retail for each electricity offering that is delivered to end use customers from January 1 to December 31. Sales must be aligned with retail sales so that data management processes can continue to align with existing PSD and PCL reporting.

2. What should be the programmatic definition of "electricity portfolio"?

² TCR's Electric Power Sector (EPS) Protocol: <http://www.theclimateregistry.org/tools-resources/reporting-protocols/electric-power-sector-protocol/> and EPS Updates and Clarifications: <https://www.theclimateregistry.org/wp-content/uploads/2015/01/2010.08.16-EPS-Protocol-UpdatesandClarifications.pdf>,

³ WRI/WBCSD GHG Protocol Scope 2 Guidance: An Amendment to the GHG Protocol Corporate Standard. Chapter 6, Page 56. Available online: http://www.wri.org/sites/default/files/Scope_2_Guidance_Final.pdf.

⁴ See: <https://www.theclimateregistry.org/our-members/cris-public-reports/>

⁵ California Electric Retail Suppliers that have reported and verified delivery metrics to TCR are: Modesto Irrigation District, Pacific Gas & Electric (PG&E), Sacramento Municipal Utility District (SMUD), Sonoma Clean Power, and Vernon. California Electric Retail Suppliers that have reported and verified a GHG inventory and any CO₂ generation metrics to TCR are: Imperial Irrigation District, Palo Alto, San Diego Gas & Electric, and Turlock Irrigation District.

The combination of the attributes of the generated and purchased power assigned to a particular electricity product within a particular calendar year.

3. *What should be the programmatic definition of “electricity offering”?*

Any electricity product being sold to an end use retail customer through a contract. This could include a default retail product or a special power product, such as a green power program.

Renewable Energy Credits

1. *Should retail suppliers be required to report the purchase of eligible renewable energy resources based on the year that the renewable electricity was generated or based on the year that the REC is retired, if the two years differ?*

Purchases of eligible renewable energy resources should be reported based on the year that the REC is retired. While ideally this would be in the same year as the REC was generated, the reality of the REC market can lead to a discrepancy between the generation and retirement year. The GHG Protocol Scope 2 Guidance stipulates that all contractual-based instruments be issued and redeemed as close as possible to the period of energy consumption to which the instrument is applied.⁶ TCR added specificity to this requirement in our General Reporting Protocol (GRP) by requiring that REC consumption claims be retired and of recent vintage, where recent vintage is defined as “retired within a period of six months before the emissions year to up to three months after the emissions year.” Here the emissions year refers to the year the electricity was consumed. This timeframe was chosen because it was seen to be a reasonable amount of time that would allow the REC market to function normally and would avoid placing an unreasonable burden on reporters.

2. *How should firmed and shaped electricity products be categorized for the power-mix percentage calculations? Specifically, should these products be categorized based on the fuel-type of their REC or the fuel-type of their substitute electricity?*

Firmed and shaped products should be categorized based on the fuel-type of their RECs, as the RECs contain the attributes of the purchased power that must be incorporated into a power delivery metric to accurately reflect an electricity offering to a customer.

3. *How should greenhouse gas emissions intensities be calculated for firmed and shaped electricity products? Specifically, should the greenhouse gas emissions intensity for these*

⁶ WRI/WBCSD GHG Protocol Scope 2 Guidance: An Amendment to the GHG Protocol Corporate Standard. Chapter 7, Page 60. Available online: http://www.wri.org/sites/default/files/Scope_2_Guidance_Final.pdf.

products be calculated based on the emissions profile associated with the generation source of their REC or based on the emissions profile of their substitute electricity?

The GHG emissions intensity of firmed and shaped products should be based on the generation source of their RECs, as the RECs contain the attributes of the purchased power that must be incorporated into a power delivery metric to accurately reflect an electricity offering to a customer. Consistent with TCR's requirements in the EPS Protocol, where RECs contain GHG emissions, such as anthropogenic CO₂ emissions resulting from some forms of geothermal energy production, these emissions should be incorporated into reported emission intensities.⁷

- 4. Should unbundled RECs (PCC 3) be reflected in the power mix or disclosed separately on the Power Content Label? What factors should be considered in making this determination?*

Unbundled RECs must be reflected in the disclosed power mix to accurately represent an electricity offering that incorporates unbundled RECs. From a GHG emissions accounting perspective, all RECs, whether bundled, firmed and shaped, or unbundled have the same validity. All RECs provide proof of renewable electricity generation from a recognized renewable energy source and represent the rights to claim the environmental, social and other non-power attributes resulting from the use of that renewable electric generation.

Exclusion of unbundled RECs in the PCL would obscure the actual emissions profile of purchased electricity and result in potential double counting of emissions attributes of non-renewable power generation. Excluding unbundled RECs in the PCL would additionally place a burden on a power consumer striving to meet its own voluntary GHG emission reduction goal by inflating the emissions associated with its indirect power consumption beyond what it is paying for either through a standard retail mix or a green power product for which it may have chosen to pay a premium.

- 5. How should null power be categorized for the power-mix percentage calculations? How should the greenhouse gas intensity of null power be calculated?*

Current best practice in GHG accounting as defined in the GHG Protocol Scope 2 Guidance requires that companies consuming null power (e.g. from self-generated and consumed power) assign an emissions rate from a different source. When calculating emissions associated with purchased power, these may be "replacement" RECs, a supplier-specific emissions rate, or a

⁷ TCR's EPS Protocol Chapter 19, Page 108. Available at <http://www.theclimateregistry.org/tools-resources/reporting-protocols/electric-power-sector-protocol/>.

residual mix factor.⁸ When extrapolating this guidance to the development of a supplier-specific emissions rates, a utility should be able to use “replacement” RECs if it has chosen to purchase and retire them, or a residual mix emission factor.

In the U.S. there is no published national residual mix factor, but some states and independent systems operators do make such a number available for their jurisdictions. TCR would encourage the CEC to consider how such a factor could be established and annually updated for California. In the absence of a residual mix factor, the next best default emissions factor for null power would be a grid average factor. Currently this would be the most recent eGRID WECC sub-region emission factor.

GHG Intensity Factor Data and Calculations

1. *AB 1110 defines “greenhouse gas emissions intensity” as the “sum of all annual emissions of greenhouse gases associated with a generation source divided by the annual production of electricity from the generation source.” Are there any reasons to consider calculating GHG emissions intensities using greenhouse gases other than those accounted for in both MRR and the EPA’s Greenhouse Gas Reporting Program?*

TCR encourages the CEC to define the emissions metrics reported on the PCL as representing the direct emissions associated with generated power. While it is true that many electricity generation activities have additional indirect GHG emissions (e.g. natural gas exploration and production emissions), combining the direct and indirect emissions into a single number will make the rate less useful to electricity consumers tracking their GHG inventories in accordance with best practices, which require a distinct breakdown of indirect emissions associated with energy consumption.

CO₂, CH₄ and N₂O are sufficient to represent GHG emissions from electricity generation. However, for biogenic sources, care should be taken to include the power, CH₄ and N₂O emissions generated from these sources and exclude any generated CO₂. This again will enable electricity consumers to use the emissions metrics on the PCL in their own voluntary GHG reporting in accordance with best practice, which requires that anthropogenic and biogenic GHG emissions be reported separately.⁹ From a consumer’s perspective, the most useful outcome would be to have a separate metric to convey any CO₂ emission resulting from biogenic consumption. However, this is not currently a common practice.

⁸ A residual mix factor represents all unclaimed energy emission within a subnational or national boundary. It is calculated as an aggregation of energy production data that factors out contractual claims (both mandatory and voluntary).

⁹ WRI/WBCSD GHG Protocol Scope 2 Guidance: An Amendment to the GHG Protocol Corporate Standard. Chapter 6, Page 57. Available online: http://www.wri.org/sites/default/files/Scope_2_Guidance_Final.pdf.

4. *Should the Power Disclosure Program adopt ARB's default factor as the greenhouse gas intensity for unspecified power?*

The CEC should work with ARB to explore any opportunity to derive default emission factors by GHG for unspecified power that have the capacity to evolve as relevant power mixes may change over time. The stationary CO₂e figure currently used by ARB is not a well suited input into the PSD program because it is calculated as the three-year average emission factor for power plants outside of California located in the Western Electricity Coordinating Council (WECC) that were available on the margin in 2006, 2007 and 2008.¹⁰ As such, it makes significant assumptions about which power is ultimately purchased as unspecified power. Its format in CO₂e additionally makes it less useful for incorporation into CO₂, CH₄, and N₂O-specific metrics

GHG accounting best practice would be to use residual mix factors, as defined above, to quantify emissions associated with purchases of unspecified power.

Conclusion

Thank you again for this opportunity to provide comment. Please do not hesitate to contact me with any questions.

Sincerely,



Peggy Kellen
Director of Policy

¹⁰ These plants had a capacity factor of 40% or lower.