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Comment Received From: Google LLC

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Google Comments on PSD Program Implementation

Additional submitted attachment is included below.

California Energy Commission 715 P Street Sacramento, CA 95814

RE: California Senate Bill 1158 Retail Electricity Suppliers Emissions of Greenhouse Gases

Google LLC ("Google") is encouraged by the passage of Senate Bill 1158 ("SB1158") which aims to increase transparency in electricity sources and emissions in California. We believe its implementation will help incentivize clean energy use and support California's climate goals.

Google is working with regulators, utilities, and service providers in the electricity sector around the world to test, build, and deploy the tools to enable hourly clean energy tracking and matching against consumption. We have spent over three years piloting time-based energy attribute certificates ("T-EACs") in collaboration with with energy attribute certificate registries worldwide to modernize tracking systems and standards¹. Empowering consumers with access to hourly electricity system data allows them to make informed choices, reduce their emissions footprint, and hold retailers accountable.

Hourly clean energy tracking is a critical tool for enabling energy customers to pursue procurement of carbon-free energy on a 24/7 basis - that is, seeking to match each hour of their electricity consumption with carbon-free energy produced in the same hour - which can help accelerate grid decarbonization. Recent studies show that the 24/7 hourly matching model enables greater system-level emissions reductions than when companies use annual renewable energy matching (even when companies don't fully achieve 24/7 carbon-free energy match) and that it creates an early market for advanced clean energy technologies from which the whole electricity system will benefit.²

In furtherance of effective implementation of SB1158, Google hereby expresses its support for the March 25, 2024, technical comments and recommendations submitted by EnergyTag in California docket number 21-OIR-01.³ This includes EnergyTag's five key recommendations to:

1. Create an "All-generation" Hourly EAC Registry System for tracking electricity generation by source and hour using tradable granular (i.e. hourly) energy attribute certificates ("EACs"). Implementing an all-generation hourly EAC registry provides a centralized, efficient, and auditable platform for robust electricity source reporting. This system enables comprehensive tracking of energy attributes, prevents double counting,

¹ See: https://cloud.google.com/blog/topics/sustainability/t-eacs-show-promise-for-helping-decarbonize-the-grid

² See: https://zenodo.org/record/7180098#.Y5uiCuzMLdo; https://zenodo.org/record/7082212#.Y9eR73bMLSE

³ See: https://efiling.energy.ca.gov/GetDocument.aspx?tn=255248&DocumentContentId=90920

- and can be built using industry standards, thus supporting compliance and harmonization with other initiatives.
- 2. **Require a Standard for this Hourly EAC Registry.** EnergyTag has produced a global, open-source standard for hourly EAC implementation⁴. Adherence to a standard ensures compatibility between different registries and facilitates data exchange, which is vital when multiple systems need to work together. Standards also ensure better quality and reliability by incorporating best practices in security, data formats, and communication. This makes registries easier to maintain and update, ultimately saving time and money.
- 3. Ensure a Fair and Administrable Framework for Matching Hourly Generation to Consumers. Retail suppliers need a system to fairly allocate and verify that the electricity they disclose as supplied to consumers matches the actual generation sources. There are resources from EnergyTag⁵ and the Regulatory Assistance Project⁶ that outline how hourly EACs can be allocated and matched to customer load, for purposes of verification.
- 4. **Enable Storage with Robust Hourly Tracking.** Energy storage can play a crucial role in integrating clean energy sources by allowing for time-shifting of electricity generation. The EnergyTag standard outlines a detailed method for tracking clean energy attributes stored and discharged from storage facilities.
- 5. Encourage Tracking of Unspecified Load with a Residual Mix. SB1158 calls for tracking unspecified electricity sources. EnergyTag suggests creating an "hourly residual mix" to account for this unspecified load and avoid double counting of generation already allocated to consumers. This residual mix would ideally be phased out once a comprehensive all-generation tracking system is implemented.

We believe these recommendations will lead to a more streamlined and effective implementation of SB1158, benefiting stakeholders across the electricity sector and ultimately accelerating California's clean energy transition.

For questions or further information please contact:

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⁴ See: https://energytag.org/standards/

⁵ See: https://energytag.org/wp-content/uploads/2024/03/Granular-Certificate-Matching-Standard V1.pdf

⁶ See: https://www.raponline.org/knowledge-center/24-7-carbon-free-electricity-transition-tariffs-regulatory-tool-accelerating-decarbonization-summary/