

October 26, 2023

Rajinder Sahota, Deputy Executive Officer
California Air Resources Board
1001 “I” Street
Sacramento, CA 95814

RE: PG&E Comments on the October 5, 2023, Cap-and-Trade Workshop

Pacific Gas and Electric Company (PG&E) appreciates this opportunity to comment in response to the California Air Resources Board’s (CARB) October 5, 2023, workshop on potential amendments to California’s Cap-and-Trade Program (Program). PG&E supports increasing the stringency of the Program to help meet the 2022 Scoping Plan Update (SPU) greenhouse gas (GHG) emissions trajectory towards carbon neutrality, while designing the Program to minimize the costs to California residents and businesses from decarbonization. PG&E offers the following comments on potential design changes to the Program with these dual objectives in mind.

I. Allowance Budgets and Allocation**Electric Distribution Utility (EDU) Allocation**

PG&E supports the Joint Utility Group (JUG) comments on this topic. We reiterate here that EDU allowance allocation is critical for achieving our broader affordability objectives while we work together to achieve net-zero emissions. We encourage CARB to minimize any reduction in the current EDU allowance allocation through 2030 and do not support a “full update”¹ to the EDU allocation. Further, we believe CARB can minimize EDU allowance reductions without undermining efforts to reduce emissions in the electric sector, which are driven primarily by separate clean electricity procurement requirements and supported by the carbon price from the Cap-and-Trade Program that is integrated into our electricity markets. Neither of these incentives to decarbonize electricity are undermined by the current EDU allocation, which is used by PG&E to fund the California Climate Credit and clean energy programs approved by the California Public Utilities Commission (CPUC). Finally, we encourage CARB to indicate its

¹ As proposed in CARB’s October 5, 2023 Workshop Presentation, Slide 27, a “full update” would include a 60% RPS target in 2030 and data from the 2022 Integrated Energy Policy Report (IEPR)

intent to continue an EDU allowance allocation post-2030 to support customer affordability while we transition to a carbon neutral economy by 2045.

Natural Gas Supplier (NGS) Allocation

PG&E supports the Gas Utility Group (GUG) comments on this topic. PG&E recognizes the need to increase ambition in the Program and appreciates staff's work to evaluate how best to facilitate the State's climate goals. However, PG&E would like to call to attention that a reduction of allowances to NGS utilities will result in reducing the California Climate Credit for investor-owned utilities (IOUs) and result in higher energy costs for natural gas ratepayers who will also be bearing the costs of decarbonizing the natural gas system. As the state moves towards greater electrification of buildings including residences, lower income residents are more likely to stay on the gas system longer due to the high upfront costs for electrification and will end up bearing a disproportionately greater burden for supporting the system as it also transitions. A 5%-15% decline in the 2025-2030 cumulative allocations in the various scenarios posed by CARB would lead to meaningfully higher energy bills for utility customers. Considering these challenges faced by PG&E and other natural gas utilities, PG&E has several broad recommendations it would like to explore in more detail with CARB:

PG&E encourages CARB to consider the RNG procurement mandates for utilities as it evaluates any updates to allowance allocation to natural gas suppliers, per the direction from the Board in Resolution 17-21. This could include taking into consideration the above-market procurement costs for RNG and other ways to support decarbonization of the natural gas system using allocated allowance value.

PG&E also encourages CARB to broaden the scope of programs that allocated allowance sales may fund, giving utilities freedom to utilize allowance revenue in more impactful ways that address not only emissions reduction broadly, but also incorporate critical equity considerations. For example, we are interested in exploring using a portion of the allocated allowance value to support neighborhood scale electrification and gas decommissioning in low-income and/or disadvantaged communities.

PG&E encourages CARB to keep in mind the goal to achieve the State's climate targets with minimal adverse impacts to utility customers as it continues to explore the different pools for potential allowance reductions.

Economy-Wide Allowance Budgets

PG&E recognizes the need to increase the stringency of the current allowance budgets and to specify post-2030 allowance budgets in service of CARB's 2022 SPU. We strongly support CARB's efforts to model future emissions and allowance prices under the alternative cap-and-trade designs it is considering; we anticipate having more to say about our preferences on allowance budgets once we see the results of economic analyses in upcoming workshops. In the meantime, PG&E looks favorably on the 48% by 2030 scenario if CARB can find sufficient

allowances to remove from within the auction, allocation, and price ceiling pools while minimizing removals from the utility allocations.

PG&E supports a well-designed 2031-2045 Cap-and-Trade program as it would help achieve our decarbonization goals cost-effectively. A post-2030 extension will require setting 2031-2045 allowance budgets and allocations. As indicated in the section above, PG&E believes it is critical to maintain as much utility allocation as possible to help support customer affordability while we pursue ambitious decarbonization efforts. While it is difficult to say much about post-2030 allowance budgets in the absence of the forthcoming economic modeling, PG&E believes that post-2030 allowance budgets should align with the state's broader climate goals as articulated in CARB's 2022 SPU. We encourage a focus on cumulative allowance budgets that align with the Scoping Plan emissions trajectory. We also believe it would be possible to construct new post-2030 or 2025-2045 allowance budget options that meet the same cumulative emissions outcomes CARB has outlined while avoiding the unusual budget trajectory reflected in the workshop presentation that comes from artificially low 2030 allowance budgets. In addition to the post-2030 options CARB presented at the October 5th workshop, we would be interested in seeing modeling results for the following scenarios:

- Option one, 48% by 2030, with some of the difference between 1450 and 1215 allowances put into an emissions containment reserve.
- Integrate the pre- and post-2030 period while delivering the same cumulative emissions reductions contemplated by CARB under the 48% scenario.
- Include offsets and/or carbon dioxide removal aligned with the 2022 Scoping Plan into the post-2030 Program.

II. Electricity Imports

GHG Accounting related to California Independent System Operator (CAISO) Markets

PG&E appreciates the opportunity to comment on the outstanding emissions calculation changes for the forthcoming Extended Day-Ahead Market (EDAM). PG&E suggests further examination of the outstanding emissions calculation to ensure it reflects a realistic amount of leakage. PG&E is concerned that the current Outstanding Emissions calculation is an overestimate and should be adjusted as soon as reasonable. The change could be applied now in the Western Energy Imbalance Market (WEIM) and then carry forward for EDAM in the future when it goes live. Additionally, EDAM will add Balancing Authority Area (BAA) and resource-specific secondary dispatch constraints in EDAM designed to minimize leakage.

Specifically:

- 1) Please confirm if the equation on slide 22 for CO_2e_{EDAM} is intended to replace the first term in the current Outstanding Emissions calculation? The full equation for outstanding emissions would be:

$$OE = MWh_{below(DA\ Energy\ Schedule - DA\ GHG\ award)} \times EF_{unspecified} \times TLF - \sum_{i=1}^n (MWh_{specified_i} \times EF_i \times TLF)$$

Where i is an index of all generators sourcing specified imports.

- 2) Additionally, please clarify the set of megawatt-hours encompassed in the proposed Outstanding Emissions Calculation (*i.e.*, $MWh_{below(DA\ Energy\ Schedule - DA\ GHG\ award)}$). Is this limited to the megawatt-hours of resources deemed delivered into California or does it involve a different set of megawatt-hours?
- 3) PG&E is unclear about why the portion below the base-schedule is considered most indicative of potential leakage. PG&E would appreciate examples from CARB or CAISO to understand why the Day-Ahead Schedule minus the DA GHG award signifies leakage and must be included in the outstanding emissions calculation.

Example: For instance, consider a 100 MW resource with a reference pass schedule of 80 MW for non-GHG native load needs, a Day-Ahead schedule of 90 MW in EDAM, and an attribution of 10 MW for incremental dispatch deemed delivered into California. The formula implies 80 MWh of energy needs accounting with the default emissions factor (90 MW Day-Ahead minus 10 MW attribution). If these 80 MW were associated with non-GHG native load needs, it would not constitute leakage.

Energy Storage Systems (ESS)

In the October 5 workshop, CARB proposed that ESS may be defined as having a single emissions source, either specified or unspecified. This is consistent with CAISO market models, which allow co-located and hybrid storage resources to charge from single sources, whereas all other ESS is modeled as charging from the market. Because definition of specified generation sources should be based on CAISO market modeling, defining ESS with potentially multiple sources of charging is inherently problematic, as it will not be automatically enforced in the market and hence can only be defined versus before- or after-the-fact contracting for generation that may or may not actually be delivered into the market, let alone be deliverable to the ESS itself.

If CARB believes it necessary to support a multiple-source emissions accounting option for ESS, it will be simpler to deem emissions per contract (with performance criteria) rather than put the burden of detailed emissions deeming on either CAISO or the ESS: the costs of such exercises would outweigh the marginal benefits relative to some version of ensuring that a contractual source cannot be deemed deliverable to any resource other than the ESS (up to its charging needs), and hence treatable similarly to how GHG-free RA imports are expected to be treated in EDAM's GHG pre-market evaluation.

Renewable Portfolio Standard (RPS) Adjustment

Similar to the JUG, we encourage CARB to continue supporting early action, utility investments in eligible renewable energy resources, transitioning the grid, and affordability of electricity rates via the RPS Adjustment. Use of the RPS Adjustment has resulted in the avoidance of millions of dollars of needless expenditures associated with RPS procurement, which means savings that have been passed on to California's electricity ratepayers. Utilities have made, and will continue to make, significant investments in renewable energy procurement under the existing policy frameworks which sees the RPS Adjustment as an element of California's decarbonization goals through 2045. Should CARB phase-out the RPS Adjustment by 2030, utility investments would be devalued, and costs for meeting the RPS requirements will increase. The RPS Adjustment aligns with the economy-wide goals outlined in the 2022 SPU and should not be eliminated.

III. Biogenic Emissions Reporting

As noted in the GUG comment letter, biogenic fuels being delivered through common carrier pipeline are being undercounted in CARB's current reporting structures. Data sharing and better alignment between the Low Carbon Fuel Standard (LCFS) program and Cap-and-Trade could help to increase the accuracy of reporting and ensure natural gas ratepayers are not covering a compliance obligation for exempt fuels purchased by 3rd-parties and delivered through common carrier utility pipeline.

To facilitate more accurate reporting of biogenic fuels, it would also be helpful to get clarity from CARB staff on the following points:

- What is the appropriate path for reporting biomethane delivered to non-covered entities?
- What type of documentation is needed to claim or qualify biomethane purchased directly by PG&E on behalf of its customers?
- Guidance on how to meet the biomethane reporting criteria (source-based or a minimum requirement on higher heating value (HHV))
- Guidance on how to accurately report the biogenic portion of gas supplied when it is mixed/blended fuel.

Conclusion

PG&E looks forward to continuing our collaboration with CARB staff and public stakeholders on potential amendments to the Program that will best support the State's climate goals while protecting customer affordability.

Sincerely,

/s/

Fariya Ali
Air & Climate Policy Manager