



December 20, 2017

Mr. Dave Mehl
Manager, Project Assessment
Industrial Strategies Division
California Air Resources Board
1001 I Street
Sacramento, California 95812

RE: Comments to November 28, 2017 Strawman Version of Potential SF6 Regulation Changes

Dear Mr. Mehl:

Pacific Gas & Electric Company, Sacramento Municipal Utility District, San Diego Gas & Electric Company, Southern California Edison Company, Los Angeles Department of Water and Power, Turlock Irrigation District, the Northern California Power Agency and Southern California Public Power Authority (“Utilities Group”) appreciate the opportunity to provide comments to the November 28, 2017 ‘Strawman Version’ of potential SF6 Regulation changes.

I. General Comments

We appreciate the California Air Resources Board (CARB) action to initiate this regulatory amendment to address concerns that the Utilities Group has identified since the regulation was adopted in December 2010. We support amendments that will help reduce high global warming potential (GWP) gas emissions and still ensure that critical uses of sulfur hexafluoride (SF6) are preserved, particularly to warrant the continued safe and reliable operation of the statewide electricity grid. Below are some initial comments for your consideration which are not intended to be comprehensive, but address the following sections:

- Purpose, Scope, and Applicability (§ 95350)
- Definitions (§ 95351)
- Sulfur Hexafluoride Phase Out (§ 95352.1)
- Nameplate Capacity Adjustments (§ 95354.1)
- Annual Reporting Requirements, Annual Emission Rate (§ 95356(e))

II. § 95350 - Purpose, Scope, and Applicability.

Establish a de minimis threshold: In recognition of the introduction and increased availability of SF6-gas alternatives, we support CARB's proposal to extend this regulation to all gaseous media used in gas insulated equipment (GIE). However, since some regulated parties operate and maintain a small GIE inventory, we propose that CARB establish a de minimis threshold to exempt such entities from the maximum annual emission rate standard while maintaining a mandatory reporting requirement.

III. § 95351 - Definitions

Add a definition for 'GIE Voltage': We propose that a definition be added to clarify that the GIE nameplate capacity will apply to the rated maximum voltage and reference the appropriate IEEE standard to provide further consistency with entity reports.

IV. § 95352.1 - Sulfur Hexafluoride Phase Out

Concerns with Phase Out proposal: The Utilities Group understands the CARB objective of eliminating future use of SF6 gas in the electricity system. However, the elimination of SF6 from new utility switchgear and GIE must be implemented in a manner that does not compromise the safety of the electricity system, nor adversely impact reliability. CARB should not impose an overly aggressive deadline to meet this objective but should instead develop a timeline to replace new SF6 equipment that is based on the availability of safe, cost-effective and reliable alternatives, allows a reasonable period to test the operation of such equipment to ensure compatibility with existing equipment and electricity systems, and provides sufficient time for workforce training and education to ensure the safe operation and maintenance of new equipment.

V. § 95354.1 - Nameplate Capacity Adjustments

We fully support CARB's effort to allow GIE owners to improve the accuracy of their GIE inventory. However, we believe that to support and encourage entities to improve their ongoing reporting accuracy, the proposed amendments provide that the recalculation

- a) Not be limited to a date-certain or fixed schedule to correct GIE nameplate values,
- b) Not be limited to devices manufactured prior to 2011,
- c) Allow stakeholders to propose and use methods to correct nameplate capacity values beyond those specified in the strawman proposed regulation, and
- d) Only be used in reports submitted on a going-forward basis.

We propose that the prescriptive method for nameplate capacity adjustments be provided in separate guidance instead of being included in the regulation.

VI. § 95356 - Annual Reporting Requirements, Annual Emission Rate.

Insufficient Credit for SF6 gas alternatives: We support CARB developing a framework to provide credit for entities that use SF6 gas alternatives in their GIE. However, the proposal offers insufficient credit to recognize SF6 gas alternatives. We recommend that CARB amend the 'Capacity Adjustment Factor' table in section § 95356(e) to provide sufficient credit to

encourage the use of alternatives with a GWP orders of magnitude lower than SF6. Further, we do not believe that the formula provides adequate credit for use of zero GWP gases.

Conclusion

The Utilities Group will be meeting in January to further understand the technological opportunities and challenges with SF6 alternatives and will offer further comments following that meeting. We thank you for the opportunity to comment on your strawman proposal and appreciate staff's initiation of the regulatory amendments to the current SF6 regulation. We look forward to continuing our work with CARB staff and other stakeholders to develop amendments that reflect the state's goal to reduce high GWP gas emissions while ensuring the continued safe and reliable operation of the statewide electricity grid.