



California Council for Environmental and Economic Balance

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September 18, 2019

Carey Bylin
Manager, Energy Section
Project Assessment Branch
California Air Resources Board
1001 I Street
Sacramento, CA 95814

RE: Comments on August 15, 2019, Discussion Draft of Potential Changes to the Regulation of Reducing Sulfur Hexafluoride Emissions (“SF₆”) from Gas Insulated Switchgear

Dear Ms. Bylin:

On behalf of the members of the California Council for Environmental and Economic Balance (“CCEEB”), CCEEB appreciates the opportunity to offer comments on the California Air Resources Board (“ARB”) “Discussion Draft of Potential Changes to the Regulation of Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear” (“Discussion Draft”), released on August 15, 2019. CCEEB is a non-profit and non-partisan coalition of business, labor, and public leaders that advances balanced policies for a strong economy and a healthy environment.

We appreciate ARB staff’s collaborative approach to this specialized regulation designed to reduce greenhouse gas impacts from releases of sulfur hexafluoride (“SF₆”). The decision to present a discussion draft of proposed regulations provides direct and open feedback from key stakeholders. We believe that this approach – coupled with individual stakeholder meetings including electric utilities, independent power producers, petroleum refiners, gas insulated equipment manufacturers and gas management equipment suppliers – will result in a robust regulation that supports a safe and reliable electricity supply system across California.

CCEEB understands and supports the reasoning to systematically phase-out the use of SF₆ in gas-insulated equipment (“GIE”), thereby reducing the long-term impact of a greenhouse gas with a GWP of 23,500 relative to CO₂ and an environmental persistence of 3,200 years. In this letter, we will express some concerns with specific provisions of the Discussion Draft. However, we would like to start with a recommendation that we believe will mitigate some of the initial uncertainty of the replacement technologies.

Protect Distinct Infrastructure, Separate from Transmission Network

While we support the phaseout of SF₆ it is important to protect distinct infrastructure that is separate from the broader statewide transmission and distribution electricity network. As such, CCEEB suggests that the initial timeline for the GIE phaseout be focused on the statewide transmission and distribution system, thus allowing the non- SF₆ GIE to be validated. Since generating assets represent a small percentage of the statewide inventory CCEEB suggests:

Add to § 95355.3 –

GIE that is attached to a generating asset and/or ties the asset into the transmission system shall be allowed up to an additional 10 years past the phase out dates specified in Table 1 and Table 2

In addition to this primary suggestion, CCEEB offers the following comments and suggestions on the Discussion Draft:

§ 95351 – Definitions and Acronyms

“Distribution-level Gas-insulated Equipment” or “Distribution-level GIE”, CCEEB suggests that instead of separating the GIE to distribution and transmission, CARB establish phase out dates based on kV and kA rating. This will eliminate confusion between distribution and transmission.

"Emergency Event" means a situation arising from a sudden and unforeseen event that could not have reasonably been prevented, including but not limited to an **equipment failure, electrical fault**, earthquake, flood, fire, or similar act of God.

“Permanently Decommissioned” – While CCEEB understands that ARB is seeking to account for SF₆ equipment that is not in active storage, this definition may inadvertently narrow the ability to have spares or replacements shelf-ready and in storage. Reasonable management of generation, transmission, and distribution requires the need for spares and the arbitrary time limit created by this definition can be solved through reporting of spare equipment in storage.

§ 95352 - Sulfur Hexafluoride Phase Out

We support a tiered phase-out schedule for new GIE purchases, so long as meeting that schedule is technically feasible, reflects commercial availability of compliant new GIE, and is cost-effective. A phase-out exemption supports these principles in the application of a SF₆ GIE phase-out while maintaining safety and reliability of our facilities and the transmission system.

CCEEB suggests following the National Electrical Manufacturers Association (“NEMA”) recommended phase out schedule for distribution-level GIE presented in August 2019:

Phase-out Dates for Distribution-level SF₆ GIE

Configuration	Voltage (kV)	Short-circuit Current (kA)	Phase-out Date	CCEEB Proposal
Aboveground	< 38	< 25	January 1, 2025	January 1, 2025
		≥ 25	January 1, 2025	January 1, 2025
	≥ 38	< 25	January 1, 2025	January 1, 2031
		≥ 25	January 1, 2025	January 1, 2031
Belowground	< 38	< 25	January 1, 2025	January 1, 2031
		≥ 25	January 1, 2025	January 1, 2031
	≥ 38	< 25	January 1, 2025	January 1, 2031
		≥ 25	January 1, 2025	January 1, 2031

CCEEB appreciates ARB’s recognition that equipment purchases made prior to the Phase-Out date may result in GIE deliveries and installation after the Phase-Out. However, the proposed 12-month window for acquiring GIE could be insufficient for capital planning requirements. CCEEB’s members plan capital projects several years in advance of installation and may have already acquired, or are in contract for, high voltage SF₆ GIE for planned delivery in the future. Purchased or Under-Contract GIE may be delivered 24 to 36 months after purchase.

Accordingly, CCEEB suggests amending §95352(a)(1)(A)(3) as follows:

“The SF₆ GIE device was purchased by the GIE owner prior to the applicable phase-out date listed in Table 1 or Table 2 ~~and the owner acquires the SF₆ GIE no later than 12 months after the applicable phase-out date.~~”

§ 95352.1 - Average CO₂e Capacity

CCEEB requests that the CO₂e capacity threshold for determining annual emission factors of <5,500 MTCO₂e emissions be increased. This CO₂e capacity (de minimis) threshold appears arbitrary and does not support or encourage compliance for facilities with more inventory than this proposed de minimis threshold, even from a single piece of equipment, and therefore gives such facilities no opportunity to be considered in this exemption. ARB has previously stated that the proposed de minimis threshold was established as the mid-point for all reporting entities, with half of the reporters having inventories >5,500 MTCO₂e and half of the reporters having inventories <5,500 MTCO₂e. This approach is inequitable from an emissions standpoint, and is likely to continue to penalize small inventories, while entities with larger inventories will likely continue to have “compliant” actual emissions based on the percentage of losses as compared to their significantly more substantial inventories.

CCEEB believes a reasonable and appropriate CO₂e capacity threshold is necessary for “small facility inventories” to avoid inadvertent and likely continuous non-compliance for minimal actual emissions, unmitigable emissions due to both regularly scheduled preventative maintenance and unscheduled repair maintenance activities, including during the retirement of such equipment. The U.S. EPA, under 40 CFR Part 98.330 Subpart DD Electrical Transmission and Distribution Equipment Use, requires that entities report emissions and related inventory quantities if system nameplate capacity exceeds 17,820 pounds of SF₆. CCEEB appreciates the reporting threshold precedent set by U.S. EPA but recommends that the California SF₆ Regulation remain consistent with other CO₂e thresholds. For instance, the Mandatory Reporting Rule for reporting (10,000 MT-CO₂e) and the Cap-and-Trade Regulation threshold for Covered Entities (25,000 MT-CO₂e) are already approved and accepted CO₂e thresholds. CCEEB recommends that the CO₂e capacity threshold be increased to <10,000 MT CO₂e to allow for small facilities to have an opportunity to achieve compliance, and also to maintain consistency with other California CO₂e thresholds.

§ 95352.2 - Annual Emissions

as currently drafted, CCEEB believes that SF₆ emissions limits should not begin to decline until after January 1, 2025. Imposing a declining SF₆ cap starting in 2019 is unduly restrictive on facilities. Additional SF₆ equipment is likely to be installed between now and the January 1, 2025 initial phase out deadline based on planned and capital-intensive projects. Immediately capping SF₆ at current emissions levels would penalize necessary upgrades or expansions of electrical infrastructure and would not give facilities sufficient time to replace existing SF₆ GIE. Furthermore, CCEEB believes emissions from the catastrophic event category in this Section should be exempted as the regulation contains provisions for these events.

CCEEB requests that an exemption be granted for any SF₆ GIE owner that permanently retires and (1) either does not replace or (2) replaces the GIE with a gas whose GIE <1MT/CO₂e. This exemption would allow any actual or calculated emissions at the time of retirement to be exempted from the Annual Emissions Limit; if proper and complete GIE evacuation processes are followed and documented. This exemption could be pre-approved by ARB staff to assure compliance with this exemption. This proposed exemption would promote the early permanent retirement of SF₆ GIE and encourage the Phase-In of low GWP GIE.

§ 95355.2 – Nameplate Capacity Adjustments

CCEEB supports the Joint Utility Group proposal to:

1. Remove section § 95355.2 (b) through (i) and replace with the following language:
 - a. Follow ARB certified manufacturer procedures for nameplate capacity adjustments
 - b. Submit, or direct GIE manufacturer to submit, nameplate adjustment procedures to ARB for certification

2. Recommend criteria for identifying GIEs needing nameplate adjustment to be submitted by the GIE owner as part of the process.

§ 95355.4(b)(2)(A) – Emergency Event Exemption

CCEEB recommends the inclusion of equipment failure and electrical fault per our suggested addition to the definition of “**Emergency Event**” in § 95351.


§ 95355.3 Clearinghouse

In response to the proposed revisions to § 95355.3 to include a “Non-SF₆ Electric Power Equipment Clearinghouse,” CCEEB believes a clearinghouse could be a useful tool for GIE owners for identifying alternatives and product manufacturers. However, CCEEB would like to further discuss with both staff and stakeholders the implications of mandating the clearinghouse in the regulation, including how robust and technical the information presented would need to be in order to interact with exemption requests under § 95355.3.

Conclusion

Thank you for your consideration of our comments. We look forward to discussing them or answering any questions you may have at your convenience. Please contact me or Jackson R. Gualco, Kendra Daijogo or Mikhael Skvarla, CCEEB’s governmental relations representatives at The Gualco Group, Inc. at (916) 441-1392 should you have any questions or comments.

Sincerely,



WILLIAM J. QUINN
President & CEO

cc: Mr. Richard Corey
Ms. Janet Whittick
The Gualco Group, Inc.