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September 19, 2016

Clerk of the Board
California Air Resources Board
1001 I Street
Sacramento, CA 94812

Subject: Comments on Proposed Amendments to the Cap-and-Trade Regulation; Proposed Amendments to the Mandatory Reporting of Greenhouse Gas Emissions Regulation; and Proposed Compliance Plan for the Federal Clean Power Plan

Dear Chair Nichols and Members of the Board:

Calpine Corporation (“Calpine”) is writing to provide comments on the three above referenced proposals by the California Air Resources Board (“ARB”), which collectively propose to modify the Cap-and-Trade Regulation and Mandatory Reporting of Greenhouse Gas Emissions Regulation and establish a post-2020 framework that will achieve compliance with the U.S. Environmental Protection Agency’s (“EPA”) Clean Power Plan.

I. INTRODUCTION

Calpine Corporation is America’s largest generator of electricity from natural gas and geothermal resources. Our fleet of 84 power plants in operation or under construction represents more than 27,000 megawatts of generation capacity. Through wholesale power operations and our retail business, Champion Energy, we serve customers in 21 states and Canada. We specialize in developing, constructing, owning and operating natural gas-fired and renewable geothermal power plants that use advanced technologies to generate power in a low-carbon and environmentally responsible manner. Calpine is also the largest operator of units constituting affected electric generating units (“EGUs”) under the Clean Power Plan within California.

Calpine strongly supports the Clean Power Plan and has, along with ARB, been defending the Clean Power Plan in litigation filed in the U.S. Court of Appeals for the District of Columbia Circuit. The Clean Power Plan follows a long history of regulation of the U.S. power sector under the Clean Air Act, both in recognizing the sector’s unique interconnected nature and in relying upon the principles of least-cost dispatch to drive emission reductions. When fully

implemented in 2030, the Clean Power Plan will ensure that carbon dioxide (“CO₂”) emissions are reduced to 32% below 2005 levels from affected EGUs on a nationwide basis. These reductions formed the basis of the U.S. CO₂ emission reduction commitment taken to the 2015 Paris Climate Conference, and what allowed the United States to leverage similar reductions from other nations under the Paris Agreement that emerged.

The Clean Power Plan therefore stands as testament to the success of the Cap-and-Trade Regulation and reflects the fulfillment of one of ARB’s primary purposes in proceeding with its implementation.¹ By forming part of the factual predicate for the “best system of emission reduction” for existing sources under Section 111 of the Clean Air Act, the Cap-and-Trade Regulation is alone fulfilling the ultimate goal of AB 32 of “encouraging other states, the federal government, and other countries to act,” recognizing that “[n]ational and international actions are necessary to fully address the issue of global warming.”²

Calpine previously provided comments in response to ARB’s September 2015 discussion paper,³ and thereafter provided comments on certain topics discussed in two December 14, 2015 presentations: “Regional and Linkage Considerations” and “Clean Power Plan & Cap-and-Trade.”⁴ In our comments below, we provide our support for numerous amendments proposed by ARB to streamline and improve market performance, as well as ARB’s proposed extension of the Cap-and-Trade Regulation beyond 2020 pursuant to existing statutory authority and as the state’s Clean Power Plan Compliance Plan. Finally, we offer a handful of discrete technical amendments aimed at improving clarity and implementation for regulated entities.

II. CALPINE’S COMMENTS

A. Transfer of Unsold State Allowances to the Allowance Price Containment Reserve Should Help Limit Prolonged Undersubscription and Drive Participation in Near Future Auctions

Calpine supports ARB’s proposal to add subsection (g) to Section 95911 to provide for the transfer of unsold allowances to the Allowance Price Containment Reserve (the “APCR”) after two years. In recognition of recent auction results and the mounting quantity of unsold allowances accumulating in the Auction Holding Account, reintroducing those unsold allowances into future auctions per the existing framework could depress future auctions, even after the present uncertainties that may be contributing to the recent undersubscription of auctions are overcome.

¹ See CPP, 80 Fed. Reg. at 64725, 64735, 64835-36 and 64887-88 (recognizing that the EPA considered California’s experience in developing a GHG trading program in formulating the “best system of emissions reduction” for existing fossil fuel-fired electric generating units and in designing other elements of the CPP).

² Health and Safety Code Section 38501(d).

³ See Clean Power Plan Compliance Discussion Paper (Sep. 2015) (hereinafter, “Discussion Paper”), <http://www.arb.ca.gov/cc/powerplants/meetings/2015whitepaper.pdf>. Calpine’s comments on the Discussion Paper are available at: <http://www.arb.ca.gov/lists/com-attach/7-111dcompliance-ws-UTJUMwBtUnFQPwRq.pdf>.

⁴ These presentations are available at: <http://www.arb.ca.gov/cc/capandtrade/meetings/meetings.htm>. Calpine’s comments are available at: <https://www.arb.ca.gov/lists/com-attach/24-capandtradeccplan-ws-BmVTNAdqACMKZQRq.pdf>.

By creating a mechanism to transfer allowances that remain unsold after two years to the APCR instead, ARB would resolve the dilemma inherent within the existing framework (*i.e.* mounting unsold allowances coupled with limited, staggered opportunities for reintroduction of those allowances to the market), which may make it difficult for market participants to appropriately gauge when and whether those allowances will be reintroduced to the auction. By establishing that allowances that remain unsold for two years after first being offered for auction will only be accessible at the higher APCR price levels, ARB's proposed amendment may help buoy auctions in the near-term by signaling to market participants that what may presently be perceived as a temporary deferral of allowances from reintroduction to the auction could, in fact, result in their eventual removal from the Auction Holding Account altogether, prompting market participants to reassess their near- and mid-term (*i.e.*, through 2020) procurement strategies.

Calpine supports ARB's efforts to improve market performance and believes the proposed addition of subsection (g) to Section 95911 is a reasonable and appropriate step towards achieving this goal.

B. ARB Should Carefully Consider Its Proposal to Collapse the APCR Tiers Into a Single Tier

Calpine supports ARB's proposal to eliminate the automatic annual five percent increase from the APCR in lieu of a simple inflation adjustment. Under the existing framework, the difference between containment prices and the floor price continues to expand with each annual adjustment, which may reduce the APCR's containing function. Calpine is also generally supportive of ARB's proposal to align the APCR with linked jurisdictions, thereby limiting the potential for arbitrage should participation in APCR sales be necessary in the future.

Calpine also generally agrees with ARB that it may be appropriate to collapse the APCR into a single tier. However, coupled with ARB's proposal to shift chronically unsold allowances to the APCR, collapsing the tiers could lead to unintended consequences as program risks are resolved and the market rebounds. Although the market has no direct experience with how the three tiers might function to mitigate volatility due to the absence of any reserve sales to-date, it is possible that the three-tiered framework could, by providing a staged series of safety valves, better moderate any rapid increases in allowance prices. Calpine therefore encourages ARB to conduct additional modeling or analysis to compare the potential impacts of moving from the existing three-tiered framework to a single tier and assure that the change would not unduly restrict the containment function of the APCR. While Calpine is generally supportive of jurisdictional alignment of the APCR tiers, ARB should also further evaluate whether alignment of the highest tier would sufficiently limit opportunities for arbitrage.

C. The Proposed Clean Power Plan Compliance Plan is Legally Adequate

Calpine supports ARB's proposed Compliance Plan for the Clean Power Plan ("Compliance Plan") as both reasonable and legally adequate. In particular, we believe the proposed backstop standards will sufficiently assure Clean Power Plan compliance in the exceptionally unlikely event that emissions from affected EGUs exceed compliance targets during any interim or final compliance period. CARB should, however, evaluate the effect on emissions from imported electricity in the unlikely event that the backstop is triggered and ensure that in-state generating

resources are not disadvantaged and emissions leakage does not occur. Calpine also agrees with ARB that, in light of the fact that the Cap-and-Trade Regulation will continue to apply to both new and affected EGUs, ARB need not demonstrate that leakage will not occur by electing a new source CO₂ complement. Recognizing these existing features and continued application of an equivalent compliance obligation to both new and affected EGUs, ARB's proposal to account for leakage by way of demonstration is appropriate.

As the Compliance Plan is evaluated further, Calpine encourages ARB to continue exploring the possibility of incorporating trading-ready elements or otherwise amending the Cap-and-Trade Regulation to take advantage of the opportunities presented by the CPP to link with broader markets and thereby maximize market efficiency and opportunities for least-cost reductions. Such linkages may be particularly important in light of the expansion of the California Independent System Operator ("CAISO") markets to include other jurisdictions within the western interconnection that may be subject to mass-based carbon prices as a result of the CPP.

D. ARB Possesses Ample Legal Authority to Extend the Cap-and-Trade Program Beyond 2020

Calpine supports ARB as it moves forward with the Cap-and-Trade Regulation beyond 2020, both in recognition of the important achievements made by the program in fulfilling the principal goal of AB 32 and on the basis of the ample legal authority provided by existing law to achieve reductions beyond the statewide greenhouse gas emissions limit through the use of market-based compliance mechanisms.

The Legislature has expressly charged ARB with the obligation of "regulating sources of emissions of greenhouse gases that cause global warming in order to reduce emissions of greenhouse gases."⁵ And, pursuant Section 38551(b) of the Health and Safety Code, the Legislature has expressed its intent that the statewide greenhouse gas emissions limit be used to maintain and continue reductions beyond 2020. Consistent with this existing statutory authority, the Legislature recently passed, and the Governor signed into law, Senate Bill 32 ("SB 32") and Assembly Bill 197 ("AB 197"), which confirm that ARB shall utilize the statewide greenhouse gas emissions limit to continue reductions at least 40 percent below the limit by December 31, 2030.⁶

Pursuant to ARB's authority to revise regulations and adopt additional regulations to further the provisions of Division 25.5 of the Health and Safety Code (i.e., AB 32), including market-based compliance mechanisms,⁷ and consistent with the statutory directives outlined above, Calpine believes that ARB has ample legal authority to move forward with continued implementation of the Cap-and-Trade Regulation beyond 2020.⁸

⁵ Health and Safety Code Section 38510.

⁶ *Id.* Section 38566.

⁷ *See id.* Sections 38560, 38562(a) and 38562(g).

⁸ *See also* Assem. E. Garcia, Legislative Intent – Assembly Bill No. 197, Assem. J. (2015-2016 Reg. Sess.) p. 6587, <http://clerk.assembly.ca.gov/sites/clerk.assembly.ca.gov/files/adj083116.pdf> ("AB 197 adds Section 38562.5 to the

As indicated in the proposed Compliance Plan for the Clean Power Plan, ARB “is designated the air pollution control agency for all purposes set forth in federal law. . . . [ARB further] is designated as the state agency responsible for the preparation of the state implementation plan required by the Clean Air Act (42 U.S.C., Sec. 7401, et seq.)”⁹ Under this authority, ARB will be required to develop and implement the state implementation plan to achieve the Clean Power Plan’s requirements for California, which are applicable starting in 2022. And, as recognized in the Clean Power Plan itself, existing multi-sector state measures such as the Cap-and-Trade Regulation may be utilized as the Clean Power Plan compliance measure for the state. Therefore, separate from the existing statutory authority authorizing ARB to continue implementing the Cap-and-Trade Regulation to achieve California’s emission reduction targets, ARB is statutorily mandated to implement an effective program that will fulfill the requirements of the Clean Power Plan through 2030 and beyond.

Calpine believes that, recognizing the integral role played by the Cap-and-Trade Regulation in EPA’s development of the Clean Power Plan, the Cap-and-Trade Regulation’s continued implementation as an integral component of California’s Compliance Plan is wholly fitting, reasonable, and well-within ARB’s statutory authority.

E. Technical Amendments Will Improve Clarity and Maintain Program Performance

1. The Proposed Amendment to Section 95112(e) is Ambiguous

ARB proposes to require, as part of the reporting obligation for operators of geothermal generating facilities, that “[o]perators of geothermal generating facilities must also report whether the geothermal binary cycle plant or closed loop system, or a geothermal steam plant or open loop system.” Calpine proposes that this language be modified as follows:

Operators of geothermal generating facilities must also report whether the source is (i) a ~~the~~ geothermal binary cycle plant or closed loop system, or (ii) a geothermal steam plant or open loop system.

Calpine believes the above-modified language more appropriately reflects ARB’s intent in modifying Section 95112(e).

2. Accelerating the September 1 Deadline under the Mandatory Reporting Regulation to August 1 May Have Consequences on Data Quality and Compliance

Currently there are only 33 verifiers responsible for filing over 400 reports, all of which share the same September 1 deadline. While Calpine recognizes the rationale ARB has offered for moving the deadline to August 1, ARB should be aware of the potential implications of this change, both to the program and the regulated community.

Health and Safety Code, within Division 25.5 (i.e., AB 32). . . . It is my intent that nothing in Section 38562.5 shall be interpreted to preclude ARB from adopting any market-based compliance mechanism pursuant to AB 32.”)

⁹ Health and Safety Code Section 39602.

Acceleration of the deadline poses several issues for covered entities and their verifiers, ranging from impacts to data quality to increasing the risk of unintentional noncompliance due to lack of qualified verifiers. These potential issues are exacerbated by the fact that the number of companies providing verification services has dropped precipitously in recent years and may continue to do so. For the initial reporting period in 2008, there were about 75 providers; there are now less than half that. The pool of verifiers is further limited by their expertise in specific sectors. We believe that the proposed compression of deadlines between submission of the emissions data report and verification of same may not allow adequate time for all intermediate steps to occur without complication.

Calpine would also encourage ARB to consider improvements to the existing Cal e-GGRT system that would better assist with accurate reporting and verification. For example, several features could be added to the system to assist with reporting for individuals reporting on behalf of several facilities, such as batch review and certification for multiple facilities, removal of the redundant password request for each report certification, automatic data loading from the previous year's report, elimination of duplicate reporting from the various subparts, and the ability to upload one excel sheet for SF6 reporting for multiple LLCs.

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Thank you for the opportunity to submit these comments on the above referenced ARB proposals. Please contact me if you have any questions.

Sincerely,



Barbara McBride
Director—Environmental Services
Calpine Corporation

cc: Hon. Mary Nichols, Chair
Richard Corey, Executive Officer
Edie Chang, Deputy Executive Officer
Michael Gibbs, Assistant Executive Officer
Rajinder Sahota, Branch Chief, Cap-and-Trade Program
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