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January 11, 2016

Chris Gallenstein, Staff Air Pollution Specialist  
California Air Resources Board  
1001 I Street  
Sacramento, CA 94812

Subject: Comments in Response to Public Workshop on California's Plan  
for Compliance with the Clean Power Plan and Potential 2016  
Amendments to the Cap-and-Trade Program

Dear Mr. Gallenstein:

Calpine Corporation ("Calpine") is writing to provide comments on issues for discussion raised during the California Air Resources Board's ("ARB") December 14, 2015 public workshop ("Workshop")<sup>1</sup> regarding California's Plan for Compliance the U.S. Environmental Protection Agency's ("EPA") Clean Power Plan ("CPP")<sup>2</sup>.

### I. INTRODUCTION

Calpine Corporation is America's largest generator of electricity from natural gas and geothermal resources. Our fleet of 83 power plants in operation or under construction represents nearly 27,000 megawatts of generation capacity. Through wholesale power operations and our retail business, Champion Energy, we serve customers in 19 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") within California.

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<sup>1</sup> The Workshop notice and presentations are available at:  
<http://www.arb.ca.gov/cc/capandtrade/meetings/meetings.htm>

<sup>2</sup> See Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64662 (Oct. 23, 2015) (hereinafter, "CPP"), available at:  
<https://www.gpo.gov/fdsys/pkg/FR-2015-10-23/pdf/2015-22842.pdf>.

Calpine strongly supports the Clean Power Plan and has, along with ARB, been granted permission to intervene in litigation challenging the Clean Power Plan in the U.S. Court of Appeals for the District of Columbia Circuit.<sup>3</sup> The Clean Power Plan follows a long history of regulation of the U.S. power sector under the CAA, both in recognizing the unique interconnected nature of the electricity grid and in relying upon market forces to deliver emissions reductions. A system-wide approach that relies upon the principles of least-cost dispatch to drive emissions reduction is particularly appropriate in the case of carbon dioxide (“CO<sub>2</sub>”), given the global impacts of CO<sub>2</sub> pollution. By encouraging flexible, market-based and technology-neutral solutions, the Clean Power Plan will hasten the shift towards increased utilization of efficient and zero-emission generating resources, while ensuring the reliability of the U.S. electric grid.

Calpine has consistently supported state and regional efforts to reduce greenhouse gas (“GHG”) emissions, including the California Cap-and-Trade Regulation. The Clean Power Plan 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 implementation of the Regulation, in the absence of any national or broader regional trading program.<sup>4</sup>

Calpine previously provided comments on the associated themes raised in ARB’s September 2015 discussion paper.<sup>5</sup> Calpine provides comments on certain topics discussed in the two December 14, 2015 presentations entitled, “Regional and Linkage Considerations”<sup>6</sup> and “Clean Power Plan & Cap-and-Trade”<sup>7</sup>. In these comments, we discuss a number of issues raised by ARB in these presentations concerning alignment of the Cap-and-Trade Program’s requirements with the CPP.

## II. CALPINE’S COMMENTS

### A. California Should Adopt a State Measures Plan to Achieve the CPP’s Mass-Based Goals, Incorporating the New Source Complement

We are pleased that ARB is giving serious consideration to the interactions among affected EGU-only programs developed under the CPP and the California Cap-and-Trade Program.

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<sup>3</sup> See *West Virginia v. EPA*, No. 15-1363 (D.C. Cir.), Order, Doc. #1592885 (Jan. 11, 2016) (granting motions to intervene of California and Calpine, among others).

<sup>4</sup> 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).

<sup>5</sup> See Clean Power Plan Compliance Discussion Paper (Sep. 2015) (hereinafter, “Discussion Paper”), available at: <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>.

<sup>6</sup> Available at: <http://www.arb.ca.gov/cc/capandtrade/meetings/20151214/regionallinkage.pdf>.

<sup>7</sup> Available at: <http://www.arb.ca.gov/cc/capandtrade/meetings/20151214/ctamendscpp.pdf>.

As we previously conveyed in our comments on the Discussion Paper, Calpine agrees that California should develop a mass-based, state measures plan that relies primarily on continued operation of the Cap-and-Trade Regulation to achieve the CPP's goals. We further suggested that California continue imposing the same requirements on new and existing natural gas-fired combined cycle ("NGCC") sources and incorporate the new source CO<sub>2</sub> emissions complement as part of its plan goals. We also encouraged ARB to explore adoption of a "trading-ready" plan to facilitate trading across state lines and further the Cap-and-Trade Regulation's legacy of delivering CO<sub>2</sub> reductions in the most cost-effective manner.

ARB should continue to explore opportunities to link California's Cap-and-Trade Program with CPP programs in other states. To affirm the leadership role that ARB has played in demonstrating the efficacy of mass-based trading programs to achieve GHG reductions, California should endeavor to realize the opportunity presented by the CPP to realize a linked national carbon market through implementation of a trading-ready program. Calpine believes this can be accomplished without threatening the integrity of the economy-wide reductions needed to achieve California's goal of reducing emissions to 40 percent (%) below 1990 levels by 2030.

B. A Trading-Ready Program Need Not Sacrifice the Integrity of California's Economy-Wide Goals

Suggestions made by some observers that California could profit by trading away its "headroom", i.e., the difference between the CPP's goals and the trajectory suggested by the Governor's 2030 goal, are misplaced. If the Cap-and-Trade Program's budget is appropriately set to achieve the Governor's 2030 goal and allowances are issued consistent with that budget, then it should not matter that the CPP's goals for California EGUs may be substantially greater than anticipated EGU emissions under California's 2030 goal.

However, given the CPP accounting mechanisms for import and export adjustments, certain limitations may need to be imposed on trading to assure the integrity of California's economy-wide goal. Under a State measures approach, California's compliance with its CPP goals will be judged, not by satisfaction of the Cap-and-Trade Program's surrender obligation, but upon reported EGU emissions, plus or minus net allowance import and export adjustments. Reductions in emissions from California EGUs are likely to continue to be driven by several enforceable measures beyond the Cap-and-Trade Program, including, most significantly, the requirement to achieve Senate Bill ("SB") 350's goal of increasing the reliance upon eligible renewable generating sources to 50% of load-serving entities sales by 2030. Thus, it seems highly unlikely that authorizing the use of allowances from other EGU-only states would jeopardize either California's achievement of its CPP goals or its broader economy-wide emission reduction goals.

Contrastingly, if allowances from other states' EGU-only markets could be used by other sectors to satisfy the Cap-and-Trade Program's compliance obligation, those imports of other states' EGU-only allowances would not be accounted for under the CPP as an adjustment to California

EGU emissions.<sup>8</sup> Such imports could conceivably threaten California's achievement of its economy-wide emission reduction goals under several plausible scenarios (depending upon the price and availability of allowances in linked EGU-only trading ready markets, in comparison to California allowances). ARB should analyze these potential scenarios further. If such analyses indicate a realistic threat that imports from other states' EGU-only markets for use by non-EGU sectors could jeopardize California's achievement of its economy-wide goals, then allowances from other states' EGU-only markets should only be authorized for use within California's Cap-and-Trade Program by affected EGUs and (assuming the new source CO<sub>2</sub> complement is incorporated into California's goals, as we suggest) new NGCC.

C. Misalignment Between Reporting and Surrender Deadlines Should Not Stand as an Obstacle to Reliance Upon the Cap-and-Trade Program as the Basis for a State Measures Plan

Because emissions of CO<sub>2</sub> from affected EGUs reported to EPA will be based upon emissions data reports submitted under Part 75 (*see* 40 C.F.R. § 60.5860(d)(3)), rather than reported CO<sub>2</sub>e emissions submitted to ARB under the Mandatory Reporting Rule ("MRR"), it should not matter that the emissions and state reporting deadlines under the CPP precede the deadlines for submission of the certified emissions data report and verification under the MRR. While the MRR's deadlines are relevant for purposes of determining obligations under the Cap-and-Trade Program, EPA and ARB need not necessarily await receipt of verified data to determine whether EGU emissions are within the CPP's goals based upon reported CO<sub>2</sub> emissions submitted pursuant to Part 75.

We recognize that several questions arise with respect to how the existing linkage with Québec and potential linkages with Ontario and Manitoba may interact with the net allowance export/import adjustments required by the CPP and that resolution of these questions may require changes to the existing Cap-and-Trade Program. For example, the requirement to report serial numbers of all allowances used for compliance (*see* 40 C.F.R. § 60.5860(d)(6)) may require a change to ARB's current practice of keeping the provenance and serial numbers of allowances invisible within the Compliance Instruments Tracking System Service ("CITSS"). Given that ARB must adopt a new regulation to continue implementation of the Cap-and-Trade Program in any event, we think it should be possible for ARB to coordinate the extension of the Cap-and-Trade Program beyond 2020 with such CPP-specific requirements.

D. Compliance Periods Under the Extended Cap-and-Trade Program Should Be Aligned With the Clean Power Plan's Interim Step Periods

Another significant change from the anticipated program schedule that ARB should accommodate in order to facilitate coordination with the CPP is the length and duration of compliance periods. Given that California is pursuing a State measures approach, it does not appear that California can depart from the prescribed interim step periods for purposes of CPP

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<sup>8</sup> *See* 40 C.F.R. § 60.5740(a)(2)(ii)(H); *see also* 80 Fed. Reg. 64894 (providing that net imports of allowances from EGU-only states are subtracted from reported EGU CO<sub>2</sub> emissions to determine compliance with the state CO<sub>2</sub> mass goal (or mass-based CO<sub>2</sub> goal plus new source CO<sub>2</sub> emission complement) during an identified plan performance period).

compliance.<sup>9</sup> However, because California will be relying upon a State measures approach and compliance will be demonstrated solely by affected EGU emissions, net of allowance imports and exports, it might be feasible to nevertheless utilize compliance periods under the post-2020 Cap-and-Trade Program that did not align with the CPP's interim step periods.

While Calpine has not reached a conclusion at this time, we imagine that it would be significantly more administratively efficient for ARB to adopt the interim step periods prescribed by the CPP as compliance periods under the Cap-and-Trade Program, at least for EGUs. While this would mean adopting two-year compliance periods for each two-year period of 2028-2029, 2030-2031 and beyond, the additional flexibility to be afforded by access to broader allowance markets should mitigate any loss of flexibility attributable to a shortening in compliance periods from three to two years for such periods. Indeed, ARB shortened the first compliance period under the existing Cap-and-Trade Regulation from three to two years, with neither any apparent loss in flexibility, nor any volatility within the allowance markets.

E. "Borrowing" Is Not Inconsistent with a State-Measures Approach

Calpine does not believe the allowance "borrowing" provisions of the Cap-and-Trade Program should pose any obstacle to reliance upon the Cap-and-Trade Program as the basis of a State measures plan. While the CPP provides that allowance borrowing is prohibited in mass-based trading programs,<sup>10</sup> we do not believe the Cap-and-Trade Program's purported "borrowing" provisions (which allow, for example, use of allocation true-ups for purposes of compliance) are any different than the provisions allowing covered entities to utilize offset credits for a fraction of their compliance obligation. Clearly EPA did not intend California from relying upon the Cap-and-Trade Program as the basis of a State measures plan.<sup>11</sup> We would therefore encourage ARB to discuss with EPA how a State measures plan can accommodate such "borrowing" provisions and still assure that the plan is designed to assure that affected EGU emissions meet the CPP's mass-based goals.

F. In the Unlikely Event that the Backstop Is Triggered, Electric Generating Units Should Be Allowed to Use Allowances from All Trading-Ready Programs to Satisfy Their Backstop Obligations

Calpine believes that the requirements for a backstop are relatively clear and would require implementation of an EGU-only compliance obligation and market in the event that the backstop were to be triggered. If that were to happen, Calpine believes it would be even more important

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<sup>9</sup> See 40 C.F.R. § 60.5770(d) (providing that State measures plans must utilize plan performance periods "identical to the compliance periods for affected EGUs listed in paragraphs (c)(1) through (3) of this section.").

<sup>10</sup> See 40 C.F.R. § 60.5815(f) (requiring that mass-based trading programs "not allow[] any borrowing of allowances from future compliance periods by affected EGUs").

<sup>11</sup> See 80 Fed. Reg. § 64891 (providing that programs allowing use of project-based offset allowances or credits and cost-containment reserve provisions could be modified to eliminate such provisions and thereby qualify for submission of such a plan as "an emissions standard plan type.").

for ARB to allow EGUs to participate in broader markets with other trading-ready programs to achieve the backstop's goals.

G. Any Adjustment to California's Policy Concerning Imported Power Should Not Disadvantage Affected Generating Units in California

In the presentation entitled Clean Power Plan & Cap-and-Trade, ARB asks whether "there [are] any policy reasons to adjust the policy for 'accounting' for imported power post 2022?"<sup>12</sup> Calpine recognizes that the CPP and developments within the Western power market pose significant questions about interactions between the Cap-and-Trade Program's import obligation and other states' CPP compliance plans. However ARB decides to resolve the question concerning imported power, it must assure that the resolution does not disadvantage in-state generating resources.

### III. CONCLUSION

The Clean Power Plan provides a tremendous amount of flexibility to states to achieve its goals. Calpine believes the Clean Power Plan acknowledges California's leadership position in developing and implementing the nation's first economy-side cap-and-trade program and is designed to accommodate the broader reach of California's program within a State measures-type plan. Calpine would encourage ARB to continue exploring how ARB's adoption of a trading-ready State measures plan could enhance the opportunities for trading and further demonstrate the efficacy of achieving emissions reductions through mass-based programs, without jeopardizing California's own policy objectives and emission reduction goals.

Thank you for the opportunity to submit these comments. Please contact me if you have any questions regarding these comments.

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  
Jason Gray, Manager, Cap-and-Trade Market and Monitoring  
Craig Segall, Staff Counsel

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<sup>12</sup> Clean Power Plan & Cap-and-Trade, *supra* note 7, at 12.