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October 19, 2015

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Subject: Comments on Clean Power Plan Compliance Workshop and
Discussion Paper

Dear Messrs. Gallenstein and Segall:

Calpine Corporation (“Calpine”) is writing to provide comments on issues for discussion raised during the California Air Resources Board’s (“ARB”) workshop regarding the U.S. Environmental Protection Agency’s (“EPA”) Clean Power Plan (“CPP”)¹ and in the accompanying discussion paper.²

I. INTRODUCTION

Calpine operates the largest fleet of natural gas combined cycle (“NGCC”) and combined heat and power facilities in the U.S. Calpine is also the nation’s largest producer of electricity from renewable, baseload geothermal resources. Overall, Calpine is capable of delivering nearly 27,000 megawatts of clean, reliable electricity to customers and communities in 18 U.S. states and Canada, with 88 power plants in operation or under construction.

¹ See Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (Aug. 3, 2015) (pre-publication version) (hereinafter, “CPP”), *available at*: <http://www2.epa.gov/sites/production/files/2015-08/documents/cpp-final-rule.pdf>.

² See Clean Power Plan Compliance Discussion Paper (Sep. 2015) (hereinafter, “Discussion Paper”), *available at*: <http://www.arb.ca.gov/cc/powerplants/meetings/2015whitepaper.pdf>.

Of the 10 largest U.S. electricity generators, Calpine has the lowest emissions intensity and the lowest total emissions for both nitrogen oxides (“NOx”) and sulfur dioxide.³ Accordingly, we have long supported programs that harness market forces to deliver emissions reductions under the Clean Air Act (“CAA”). This is evidenced by our intervention in support of EPA in successfully defending the Mercury and Air Toxics Standards⁴; our submission of a reply brief in support of EPA in the U.S. Supreme Court’s review of a challenge to the Cross-State Air Pollution Rule⁵; our submittal of an *amicus curiae* brief supporting EPA’s position in the Tailoring Rule litigation;⁶ and, most recently, our submittal of an *amicus curiae* brief supporting EPA in early litigation seeking to prevent EPA from finalizing the Clean Power Plan.⁷

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 (“CO₂”), given the global impacts of CO₂ 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.⁸

³ Natural Resources Defense Council *et al.*, Benchmarking Air Emissions of the 100 Largest Electric Power Producers in the United States, at 10 (2015), *available at*: <http://www.nrdc.org/air/pollution/benchmarking/files/benchmarking-2015.pdf> (emissions and generation data from 2013). Calpine was the eighth largest electricity producer in 2013.

⁴ See *White Stallion Energy Ctr., LLC v. EPA*, 748 F.3d 1222 (D.C. Cir. 2014) (upholding MATS).

⁵ See *EPA v. EME Homer City Generation, L.P.*, 134 S. Ct. 1584 (2014) (upholding CSAPR).

⁶ See *Br. of Calpine Corp. as Amicus Curiae in Support of Resp’t, Util. Air Regulatory Grp. v. EPA*, 573 U.S. ____ (2014).

⁷ See *In re: Murray Energy Corp.*, No. 14-1112 (D.C. Cir. 2015) (denying petitions filed under the All Writs Act for a mandate precluding EPA from finalizing CPP). A copy of Calpine’s brief is available at: http://www.edf.org/sites/default/files/content/amicus_for_respondent_brief_filed_by_calpine_corporation.pdf.

⁸ See CPP (pre-publication version) at 324, 374, 629, 898-899, 1172 and 1270 (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).

We are pleased that ARB has commenced a process regarding its implementation of the CPP. We encourage ARB to consider the following key suggestions in developing its plan:

- Calpine agrees that California should develop a mass-based, state measures plan that relies primarily on continued operation of the Cap-and-Trade Regulation.
- California's plan should continue to impose the same requirements on new and existing NGCC sources and should incorporate the new source CO₂ emissions complement.
- ARB should explore adoption of a "trading-ready" plan to facilitate trading across state lines and further the Cap-and-Trade Regulation's legacy of delivering CO₂ reductions in the most cost-effective manner.

These key suggestions are described below.

II. CALPINE'S COMMENTS

A. California Should Adopt A State Measures Plan to Achieve the CPP's Mass-Based Goals

The CPP provides a state a great deal of flexibility in choosing whether its plan should be aimed at achieving either (i) the subcategory-specific emission performance rates for affected EGUs; (ii) the statewide rate-based emission goals for the state; or (iii) the CPP's mass-based goals for the state.⁹

Calpine agrees with ARB that continued implementation of its Cap-and-Trade Regulation should be the centerpiece of a "state measures" approach to compliance with the CPP.¹⁰ Calpine also agrees that the federally enforceable obligation would include the requirement that all affected electric generating units ("EGUs") hold allowances and otherwise comply with the requirements of the Cap-and-Trade Regulation. As California's Cap-and-Trade Regulation demonstrates, mass-based allowance trading systems can drive cost-effective reductions in CO₂ emissions with little to no impact on the power markets. Continued operation of the Cap-and-Trade Regulation during the federal compliance period will likewise assure compliance with the CPP.¹¹

Additionally, although it appears unlikely that the "backstop" would ever be triggered given California's continued implementation of complementary measures, Calpine supports ARB's inclusion of an appropriate "backstop" in 2016 amendments to the Cap-and-Trade Regulation.

⁹ See CPP at 1456, adopting 40 C.F.R. §60.5740(a)(2).

¹⁰ See CPP Discussion Paper at 7, question 1.

¹¹ Calpine discusses elsewhere ARB's authority to continue implementation of the Cap-and-Trade Regulation. See letter from Barbara McBride to Edie Chang, *Comments on 2030 Scoping Plan Target* (Oct. 16, 2015) at 2-3; available at: <http://www.arb.ca.gov/lists/com-attach/25-2030targetsp-ws-BWZWMVQ5BCcBbgRq.pdf>.

Calpine looks forward to continued discussion of the appropriate form of such backstop measures.

B. California Should Continue to Impose the Same Emissions Reduction Requirements on New and Existing Sources

The final CPP recognizes that, due to the contours of Clean Air Act (“CAA”) Section 111 and the fact that Section 111(d) only requires standards for *existing* sources, there is a significant risk that CPP implementation could result in “leakage” to *new* NGCC units; if emissions from existing NGCCs were merely to be shifted to new NGCCs that are not subject to the state’s plan, the state could fail to achieve emission reduction levels consistent with the “best system of emissions reduction” (“BSER”).¹² Such leakage would erode the reductions to be achieved by the CPP and undermine the overarching purpose of the CAA. It could also result in a significant over-build of new NGCC units, relative to what would happen in the absence of CPP implementation. Accordingly, the CPP requires that states electing mass-based plans include requirements that address leakage or demonstrate that leakage would not occur.¹³

The CPP provides that a state can do this through one of three means:

- (1) It could impose the same requirements on new and existing sources. If a state chooses to do this, it may also receive a larger state budget, with the additional amount known as the “new source CO₂ complement”. A plan that does this will be presumptively approvable.¹⁴
- (2) It could adopt allowance allocation methods that counteract incentives to shift generation from existing sources to new NGCCs and, if the state adopts the allowance set-aside provisions exactly as they appear in the finalized model rule, its plan would be presumptively approvable.¹⁵
- (3) Alternatively, it could demonstrate that emission leakage is unlikely to occur due to unique state characteristics or state plan design elements.¹⁶

EPA will reject a state plan that fails to address leakage through one of these means.

Calpine believes that it is critically important for states to address the risk of leakage through option (1). Accordingly, California should continue to impose the Cap-and-Trade Regulation’s

¹² See CPP at 826, 833-39.

¹³ *Id.* at 1174-86.

¹⁴ See *id.* at 1487, §60.5790(b)(5)(i).

¹⁵ See *id.* §60.5790(b)(5)(ii); CPP at 1175-76.

¹⁶ See *id.* at 1176; 1488, §60.5790(b)(5)(iii).

compliance obligation on both new and existing sources. Additionally, California should incorporate the “new source CO₂ emission complement” in establishing its CPP goals.

By imposing the same requirements on existing and new sources, continued operation of the Cap-and-Trade Regulation will prevent market distortions that would arise if new sources could underbid their existing, equally efficient competitors in power markets. For these reasons, California’s plan should continue to impose the same requirements on new and existing sources and incorporate the new source CO₂ emission complement.

C. ARB Should Explore Opportunities to Adopt a Trading-Ready Plan

ARB has long envisioned implementation its Cap-and-Trade Regulation as part of a broad regional program that allowed trading with other partners within the Western Climate Initiative (“WCI”). Indeed, a regional trading program that included all states within the Western electricity grid would avoid some of the trickiest questions encountered to-date within the Cap-and-Trade Regulation (e.g., how to address imported electricity and “resource shuffling”). Although California’s linkage with Quebec has demonstrated that many obstacles to successful linkage can be overcome (even when the jurisdictions do not share a common language or currency), California remains the only WCI partner within the Western electricity grid with an active trading program.

Now, in part due to the success of California in demonstrating the suitability of CO₂ emissions to mass-based trading, the CPP provides a real opportunity to develop a linked national carbon market. It does this by encouraging the development of “trading-ready” state plans that facilitate trading across state lines, without requiring states to prepare a formal multi-state plan or share a blended target. The CPP provides that states may allow their affected EGUs to trade with those in other states simply by indicating this election in its plan and agreeing to administer the state’s program through either an EPA-approved or EPA-administered trading system.¹⁷

Calpine does not believe that the requirements imposed by Senate Bill (“SB”) 1018 preclude ARB from adoption of a trading-ready plan.¹⁸ Calpine appreciates ARB’s willingness to explore collaboration with other states throughout the CPP compliance period.¹⁹ Calpine recognizes that whether California’s plan can be made “trading ready” involves significant policy and economic questions, which will need detailed analysis and considered discussion. While Calpine is only beginning to consider these questions at this time, we would encourage ARB to undertake this analysis with the ultimate goal in mind of realizing the potential for a national carbon trading program presented by the CPP, while respecting California’s own policy objectives.

¹⁷ See *id.* at 1474, §60.5750(d).

¹⁸ See Cal. Gov. Code § 12894(f) (prohibiting linkage of market-based compliance mechanisms developed under Assembly Bill (“AB”) 32 unless the Governor makes certain findings regarding equivalency, stringency and enforceability of requirements in the linked jurisdiction).

¹⁹ See Discussion Paper at 12-13.

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III. CONCLUSION

Calpine agrees that California should submit a state measures-based plan that relies upon continued implementation of the Cap-and-Trade Regulation for all affected existing and new sources. California should also incorporate the corresponding “new source CO₂ complement” as part of its CPP goals. Calpine looks forward to further discussion with ARB of the type of backstop measures that should be included in amendments to the Cap-and-Trade Regulation and how the CPP can be utilized to realize California’s goal of establishing a broad CO₂ trading program, while assuring California’s policy objectives are satisfied.

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

Sincerely,

/S/

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