



CALPINE CORPORATION

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November 4, 2016

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

Subject: Comments on October 21, 2016 Cap-and-Trade Program
 Workshop

Dear Chair Nichols and Members of the Board:

Calpine Corporation (“Calpine”) is writing to provide comments following the Cap-and-Trade Program Workshop (the “Workshop”) held on October 21, 2016 by the California Air Resources Board (“ARB”). Calpine previously submitted comments on September 19, 2016 with regard to ARB’s proposal to modify the Cap-and-Trade Program, which Calpine incorporates here by reference.¹

I. INTRODUCTION

Founded in San Jose, California, 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 and has the lowest emission rates of both criteria pollutants and carbon dioxide among the fossil fleet of the 10 largest U.S. electricity generators.² Since our inception 32 years ago, Calpine has been committed to sustainability and has developed an extensive record of actively supporting state and federal initiatives to reduce air pollution and carbon emissions. This includes Calpine’s long-time support for the Cap-and-Trade Program as a means of achieving Assembly Bill (“AB”) 32’s greenhouse gas emissions reduction mandate.

In the comments below, Calpine reiterates its support for ARB’s proposed continuation of the Cap-and-Trade Program and offer our view as to why its extension is consistent with and responsive to California’s recent adoption of AB 197 and Senate Bill (“SB”) 32. Indeed, in step

¹ See Comments of Calpine Corporation on Proposed Amendments to Cap-and-Trade Regulation (Sept. 19, 2016), <https://www.arb.ca.gov/lists/com-attach/48-capandtrade16-UTJcOwBtU3ADbAhm.pdf>.

² M.J. Bradley & Associates, Benchmarking Air Emissions of the 100 Largest Electric Power Producers in the United States, at 26 (2016), <http://www.mjbradley.com/sites/default/files/Benchmarking-Air-Emissions-2016.pdf>.

with ARB's existing mandate as confirmed by these bills, extension of the Cap-and-Trade Program would satisfy statutory directives, while resulting in direct emission reductions from sources in its own right. Calpine also offers technical comments on issues discussed during the workshop.

II. CALPINE'S COMMENTS

A. AB 197 Does Not Stand as an Obstacle to ARB's Proposed Post-2020 Extension of the Cap-and-Trade Program

AB 197 provides that, when adopting rules and regulations to achieve emission reductions beyond the statewide greenhouse gas emissions limit, ARB must follow the requirements in Section 38562(b) of the Health and Safety Code, consider the social costs of the emissions of greenhouse gases, and prioritize emission reduction rules and regulations that result in direct emission reductions from sources. Section 38562(b) requires ARB to consider several factors in adopting regulations, including cost-effectiveness and a mandate to minimize leakage. By commanding ARB to follow the requirements of Section 38562(b), AB 197 explicitly reaffirms, rather than relegates, these other considerations to those added by AB 197.

As one of a comprehensive suite of measures designed to reduce emissions of greenhouse gases under AB 32, the Cap-and-Trade Program remains consistent with ARB's statutory directives as modified by AB 197. Working in tandem with complementary measures, the Cap-and-Trade Program provides certainty that emissions from sources will be reduced by the amounts needed to achieve the state's targets. In this manner, the collective suite of measures implemented under AB 32 already responds to AB 197's prioritization directive. Legislative analysis which accompanied AB 197 explained as much, noting that the bill "is essentially consistent with the current program and structure of AB 32", which in practice has already resulted in the prioritization of regulations resulting in direct emission reductions.³

While AB 32, as amended by SB 32 and AB 197, contains no mandate that every measure implemented to meet the state's goal must result in direct emission reductions, the Cap-and-Trade Program does, in fact, result in direct emission reductions from sources and will continue to do so in the future. As a declining cap system, under which the vast majority of each covered entity's compliance obligation must be met with allowances and only a small percentage of such obligations may be met with offset credits, the Cap-and-Trade Program will necessarily reduce emissions from the categories of sources identified by AB 197, which include large stationary sources, mobile sources and other sources. As the cap continues to decline and, provided the quantitative usage limit remains fixed, direct emission reductions from such sources are mathematically certain to occur. So, even if AB 197 mandated that ARB only adopt regulations that result in direct emission reductions from sources (which the bill does not), the Cap-and-Trade Program, both as it is currently designed and as proposed for extension beyond 2020, would satisfy that criterion.

Aside from the directives added by AB 197, the Cap-and-Trade Program is acutely responsive to other important statutory directives. As the lowest-cost and most flexible approach to reducing

³ Assem. Com. on Natural Resources, Rep. on Assem. Bill 197 (2015-2016 Reg. Sess.), at 5 (Aug. 23, 2016).

emissions, the Cap-and-Trade Program harnesses market forces to identify the most cost-effective reductions and drives those reductions with efficiencies that a direct control regime could not achieve. Through the allocation of allowances to energy intensive/trade exposed industries and application of the compliance obligation to imported electricity, the Cap-and-Trade Program is uniquely equipped to minimize emissions leakage and reduce costs to consumers in ways that direct controls imposed on individual sources cannot. Additionally, by putting an express price on carbon emissions, the Cap-and-Trade Program causes emitters to account for and internalize the costs their emissions have on the environment and thereby fulfills AB 197's directive that ARB consider the social costs of emissions. In all these respects, the Cap-and-Trade Program is wholly consonant with the statutory directives enumerated by Section 38562(b) and affirmed by AB 197.

Finally, it bears repeating what was made abundantly clear as AB 197 was passed into law: the bill was never intended to limit ARB's authority to continue implementing the Cap-and-Trade Program going forward. *See* Assembly Daily Journal, 2015-2016 Regular Session (Aug. 31, 2016) (“[N]othing in Section 38562.5 shall be interpreted to preclude ARB from adopting any market-based compliance mechanism pursuant to AB 32.”); Statement of Assem. E. Garcia before Assem. Com. on Natural Resources (Aug. 24, 2016) (“The leadership of the Senate, who moved this bill out this week, is in support of the Cap-and-Trade Program. The leadership of the Assembly is in support of the Cap-and-Trade Program. The Governor of the State is in support of the Cap-and-Trade Program, and has asked that 197 be sent to his desk as a package with SB 32. So I want to state that the intention is by no means is to tamper with the Cap-and-Trade Program.”).

Based on the foregoing, the Cap-and-Trade Program need not be modified in any material fashion in response to AB 197. All that is needed to ensure direct emission reductions going forward within the Cap-and-Trade Program is the continued decline of the cap, a feature inherent to the Program and the effect of which on source emissions will become significantly more pronounced going forward. Claims to the contrary obscure or fail to appropriately recognize these indisputable features of the Program and the state's ambitious 2030 target, as established by SB 32.

B. Release of Anonymous Entity Positions is Not Needed and May Jeopardize Proprietary Information

Calpine believes that it is unnecessary at this time to expand the availability of entity-specific data regarding long and short positions, as was suggested by the Emissions Market Advisory Committee (“EMAC”).⁴ While Calpine understands the theoretical potential for market manipulation (i.e., acquisition of a dominant position), there appears to be a low likelihood that such manipulation can occur at a significant level under the Cap-and-Trade Program due to existing safeguards, including the regulation's holding limits. Moreover, while Calpine appreciates the proposal to mask entity identities, in practice it could take relatively little effort to deduce which entity (among an identifiable few) corresponds to which entry on an anonymous

⁴ *See* Borenstein, S., J. Bushnell and F. A. Wolak, “Information Release on Allowance Holdings in the Greenhouse Gas Emissions Cap-and-Trade Market,” 2-4, *available at*: https://www.arb.ca.gov/cc/capandtrade/emissionsmarketassessment/information_release_2014feb_rev.pdf.

bar graph showing net short positions. Disclosure of the information suggested by EMAC may therefore serve only to the detriment of entities with substantial need for compliance instruments. Calpine therefore discourages ARB from making any amendments of the sort suggested by EMAC. If ARB is determined to proceed with making such information available, Calpine suggests ARB consider and further evaluate a category-based approach comprising only long positions and only where such positions are substantially longer than an entity's projected emissions during both the current and next compliance period.⁵

C. Treatment of Greenhouse Gas Emissions in the Energy Imbalance Market

Calpine offers the following comments regarding proposed approaches to resolving inaccurate greenhouse gas accounting resulting from secondary dispatch, much of which was provided in expanded form to the California Independent System Operator ("CAISO") after its October 13, 2016 technical workshop.⁶

As a practical matter, Calpine observes that the type of leakage reflected in secondary dispatch is endemic to a regulatory regime in which California regulates carbon emissions, including emissions associated with imported energy, while surrounding states do not. Such a regime provides incentives to ascribe comparatively clean external resources to California loads, thereby resulting in shuffling rather than legitimate emission reductions. To the extent that CAISO tries to limit secondary dispatch within the Energy Imbalance Market ("EIM"), the incentive and ability to ascribe comparatively clean external resources to California loads would not go away; attribution could instead move outside EIM entirely through bilateral trading. With regard to a hurdle rate approach in particular, Calpine is concerned that, applied only to EIM, it would simply discourage the use of EIM and encourage bilateral contracting and self-scheduling, potentially undermining the benefits of a regional market. Absent a comprehensive approach (e.g., a hurdle rate applied uniformly across markets), it is not clear that any of the options considered will have a measurable impact.

As a legal matter, Calpine notes that the directives for ARB to account for emissions from all electricity consumed in the state and to minimize emissions leakage do not necessarily require that ARB wholly eliminate leakage. (Indeed, the directive to minimize leakage presumes that some amount of leakage is tolerable, but that ARB will adopt rules and regulations that reduce it to the extent feasible, consistent with the other directives provided by AB 32, including achievement of the maximum technologically feasible and cost-effective reductions.) Nor do these directives mandate that ARB impose an allowance surrender obligation on market participants to address the consequences of secondary dispatch. While Calpine appreciates ARB's interest in assuring complete, accurate and transparent accounting of the emissions associated with California load, Calpine cautions ARB against deciding on an approach that chills participation in the EIM or has the potential to disadvantage in-state generating assets.

⁵ Compare EMAC's proposed definition of long position to include emissions during the current compliance period, *id.* at 4.

⁶ Comments of Calpine Corporation on October 13, 2016 Regional Integration – California Greenhouse Gas Compliance Initiative Technical Workshop (Oct. 27, 2016), <http://www.caiso.com/Documents/CalpineComments-RegionalIntegrationCaliforniaGreenhouseGasCompliance-TechnicalWorkshop.pdf>.

Calpine encourages ARB to continue working with the CAISO and stakeholders to develop an appropriate solution in 15-day amendments.

Calpine is optimistic that uniform carbon pricing throughout WECC will obviate the need to address this problem and we therefore encourage ARB to continue exploring how California's post-2020 program may ultimately be linked with other carbon pricing regimes implemented pursuant to the Clean Power Plan.

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Thank you for the opportunity to submit these comments. Please contact us if you have any questions at 916-491-3366 or 925-577-2238.

Sincerely,



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Barbara McBride
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