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**VIA ELECTRONIC SUBMISSION**

June 22, 2012

Hon. Mary D. Nichols, Chairman  
California Air Resources Board  
1001 "I" Street  
Sacramento, CA 95814

**Subject: PE-Berkeley, Inc.'s Comments Regarding California's Use of Auction Proceeds  
from Cap-and-Trade Program to Reduce Greenhouse Gas Emissions**

Dear Madame Chairman:

PE-Berkeley, Inc ("PEB"), a 22.47 megawatt (MW) cogeneration power plant located in Berkeley, California, and Olympus Power, LLC, an independent power company, which is both an equity investor in and the asset manager of this facility, offer these comments to the California Air Resources Board ("CARB"). PEB supplies thermal energy (or heat) to the University of California-Berkeley ("UC-Berkeley") and electric power to Pacific Gas & Electric ("PG&E") under separate long-term agreements. Compared to other combined heat and power ("CHP") or cogeneration facilities, a larger percentage of the power generated at PEB is in the form of district steam as compared to electricity.

As requested by CARB Staff, these comments address the following questions: (i) How can California effectively invest the auction funds to meet the goals of Assembly Bill (AB) 32 including support of long-term, transformative efforts to improve public health and develop a clean energy economy?; and (ii) What criteria should be prioritized in the development of an investment plan for auction funds and why?<sup>1</sup>

**Introduction**

CHP facilities are a reliable and highly efficient energy source that is critical to California meeting its goals under AB 32, and are an important part of the state's efforts to improve public health and develop a clean energy economy. As an energy efficient technology, CHP lowers demand on the electricity delivery system, frequently reduces reliance on traditional energy supplies, and reduces emissions of GHG and criteria pollutants. Given the importance of CHP facilities in this regard, PEB strongly encourages CARB Staff to provide allowance auction

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<sup>1</sup> CARB Public Input on Investment of Cap-and-Trade Auction Proceeds, available at:  
<http://www.arb.ca.gov/cc/capandtrade/revenue/publicinputdetails.pdf>.

proceeds to legacy CHP facilities, such as PEB, that have no ability to recover the cost of allowances due to fixed price long-term contracts for steam that were entered into decades ago before this type of regulatory program was remotely foreseeable. By adopting programs that cause substantial economic harm to legacy CHP facilities, CARB could effectively shut down the very legacy projects built in response to California’s visionary energy policies developed during Governor Brown’s first administration and to the Public Utility Regulatory Policies Act of 1978 (“PURPA”), the landmark legislation designed to reduce the barriers to and promote development of CHP nationwide.<sup>2</sup> As described below, CARB’s failure to provide relief to PEB is contrary to the overwhelming support for and active efforts by California and federal agencies to encourage increased deployment of CHP, consistent with state and federal policies promoted over the past several decades that continue today.

**I. How can California effectively invest the auction funds to meet the goals of AB 32 including support of long-term, transformative efforts to improve public health and develop a clean energy economy?**

PEB believes that CARB should invest auction proceeds to promote the development of clean and efficient sources of energy—in particular, CHP, which is among the most cost effective and technologically feasible sources of clean and efficient energy. CHP, also known as cogeneration, is the concurrent production of electricity or mechanical power and useful thermal energy (heat) from a single source of energy. By capturing and utilizing heat that would otherwise be wasted, CHP is more efficient than traditional separate electricity generation and heat production, thereby using less fuel and emitting lower levels of GHG and criteria pollutants. Given these environmentally beneficial attributes, CHP lowers demand on the electricity delivery system and frequently reduces reliance on less efficient traditional energy supplies.

CHP is widely recognized as one of the most promising options in California’s and the country’s energy efficiency portfolio. As described by the U.S. Department of Energy, “energy efficiency and renewable energy are key components of a portfolio of promising supply- and demand-side resources that can provide the Nation with clean, affordable energy and support continued economic prosperity. **CHP is first and foremost an energy efficiency resource.**”<sup>3</sup> Indeed, “CHP reduces the carbon footprint of separately generated heat and power, [and] **is one of the most cost-effective methods of reducing CO<sub>2</sub> emissions.**”<sup>4</sup> Likewise, the U.S. Environmental Protection Agency (“EPA”) recognizes that “because CHP uses less fuel than conventional generation, it reduces GHG emissions and air pollutants,”<sup>5</sup> and has established the Combined

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<sup>2</sup> 16 U.S.C. § 2601 *et seq.*

<sup>3</sup> Combined Heat and Power, Effective Energy Solutions for a Sustainable Future, U.S. Department of Energy, (December 1, 2008), 4 (emphasis added).

<sup>4</sup> *Id.* at 9 (citing *International Energy Administration, Combined Heat and Power—Evaluating the Benefits of Greater Global Investment* (March 2008) (emphasis added)).

<sup>5</sup> *Environmental Revenue Streams for Combined Heat and Power*, U.S. EPA Combined Heat and Power Partnership, (December 2008), iv.

Heat and Power Partnership program, which seeks to reduce the environmental impact of power generation by promoting the use of CHP nationwide. U.S. EPA describes CHP as “an efficient, clean, and reliable approach to generating power and thermal energy” that “can increase operational efficiency and decrease energy costs, **while reducing the emissions of greenhouse gases that contribute to global climate change.**”<sup>6</sup>

The California Public Utilities Commission (“CPUC”), the California Energy Commission, and CARB itself **“have all recognized that efficient and clean CHP can reduce GHG emissions.”**<sup>7</sup> Governor Brown’s “Jobs for California’s Future” platform also recognizes the increased efficiency of CHP, as compared to traditional industrial and power plants, and seeks to increase deployment of CHP by 6,500 MW over the next 20 years.<sup>8</sup> Indeed, it is **“the policy of the state to encourage and support the development of cogeneration** as an efficient, environmentally beneficial, competitive energy resource that will enhance the reliability of local generation supply, and promote local business growth.”<sup>9</sup> To this end, the CPUC created the State CHP Program in 2010 to encourage the continued operation of the state’s existing CHP facilities, as well as the development of new CHP Facilities, “in order to increase the diversity, reliability, and environmental benefits of the energy resources available to the State’s electricity consumers.”<sup>10</sup>

Throughout the Cap-and-Trade Rulemaking, CARB Staff has expressed its goal of promoting “widespread development” of CHP facilities in furtherance of the state’s goals of reducing GHG emissions to 1990 levels by 2020.<sup>11</sup> Clearly, there is consensus among federal and California agencies, as well as the Governor’s Office, that CHP offers significant environmental benefits compared to separately purchased electricity and thermal energy, and are important to

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<sup>6</sup> *Id.* at ii (emphasis added).

<sup>7</sup> CPUC Decision, 10-12-035, 38 (December 16, 2010) (emphasis added) (citing CPUC Decision D.08-10-037, at 237-38; Climate Change Scoping Plan: A Framework for Change, CARB, December 2008, 43-44; and 2009 Integrated Energy Policy Report, California Energy Commission, 97-98); see CPUC Decision R.06-04-009, 104 (October 22, 2008) (emphasis added) (“Overall, we support the identification of CHP as already included in ARB’s Draft Scoping Plan. This is primarily due to the ability of CHP to reduce overall GHG emissions by producing two products (heat and electricity) with one fuel input. Classifying CHP as an emission reduction measure would complement the market demand for less GHG-intensive electricity.”)

<sup>8</sup> Jerry Brown, “Jobs for California’s Future”, available at <http://www.jerrybrown.org/jobs-california%E2%80%99s-future> (CHP projects “are much more efficient than traditional power plants and many industrial plants. California currently produces 9,249 MW of combined heat and power. With the right incentives, we can increase this by 6,500 MW over the next 20 years.”)

<sup>9</sup> Pub. Utilities Code, § 372(a) (emphasis added).

<sup>10</sup> CPUC Decision, 10-12-035, 37.

<sup>11</sup> See CARB Scoping Plan, 42-43. CARB Staff has recognized that deployment of CHP in the state “would help displace the need to develop new, or expand existing, power plants.” *Id.*

reducing GHG emissions from power generation.<sup>12</sup> Given these attributes, CARB Staff should provide auction proceeds to those existing legacy CHP facilities, such as PEB, that are at risk of shutting down because they are unable to recover the cost of allowances under existing fixed price contracts for steam.<sup>13</sup> Absent allocation of proceeds to legacy CHP facilities, CARB is effectively **disincentivizing** investment in new California CHP, contrary to these well established and uniform public policy objectives, by sending a clear signal that California energy investments represent a material risk of economic harm and regulatory uncertainty, which should be priced into any new investment in California, if one decides to invest at all. Further, to the extent that new CHP facilities are built in California, rate payers will likely realize higher project costs to account for this increased risk to investors and developers as a result of CARB's inequitable implementation of the Cap-and-Trade Regulation<sup>14</sup> as applied to CHP facilities that lack any pass-through or cost recovery mechanisms.

## **II. What criteria should be prioritized in the development of an investment plan for auction funds and why?**

In furtherance of AB 32, California should prioritize its efforts to ensure the economic viability of existing clean and efficient energy sources that are consistent with state energy policy. Given the overwhelming support for CHP by federal and California agencies, CARB is justified in providing proceeds from allowance auctions to PEB. If CARB does not provide such relief to PEB, the facility may be forced to shut down, which would require the end user (i.e., UC-Berkeley) to operate older, less efficient boilers—that emit higher levels of GHG and criteria pollutants—in order to provide steam to the university's campus. In the interim, it would take several years, with no assurance of success, to site and build a new facility in the Berkeley area to replace PEB.

As discussed throughout the rulemaking for the Cap-and-Trade Regulation, a limited number of legacy CHP facilities in California are parties to long-term contracts with no available pass-through mechanism for allowance costs related to steam supply. In the case of PEB, it entered into a contract to supply steam in 1987 (well before carbon emissions regulations were even contemplated).<sup>15</sup> CARB Staff has recognized the need to address the issue of long-term fixed price contracts and committed early on to work with stakeholders to address this issue.<sup>16</sup> To

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<sup>12</sup> See California Energy Action Plan, 2008 Update (February 2008) (emphasis added) (“[C]ombined heat and power applications could **play a large part in avoiding future greenhouse gas emissions** due to the combined efficiency of the heat and power portions of the project.”)

<sup>13</sup> CHP facilities will recover costs related to electric power supply as part of settlement agreement negotiated under the supervision of the CPUC; however, no such relief is provided under CARB's Cap-and-Trade Regulation to CHP facilities for the steam aspect of their operations.

<sup>14</sup> Cal. Code Reg., tit. 17, §§ 95800 *et seq.*

<sup>15</sup> See PEB comment letters to CARB dated December 15, 2010, August 11, 2011, September 27, 2011, October 18, 2011, and April 13, 2012.

<sup>16</sup> CARB Resolution 10-42, Attachment B, 8.

date, however, CARB Staff has not proposed any solution and, thus, this important issue remains unresolved.<sup>17</sup> While PEB continues to believe that the appropriate solution is for CARB Staff to modify the Cap-and-Trade Regulation to provide direct allocation of allowances to PEB until its existing contract expires in 2017 or is substantively renegotiated,<sup>18</sup> CARB can resolve this issue by providing allowance auction proceeds to PEB to reimburse it for the unrecoverable costs of acquiring emission allowances under this regulatory program. Indeed, as discussed in PEB's prior comments, Quebec, a jurisdiction with which CARB intends to link its cap-and-trade program, provides free allowances to electricity generators and steam suppliers that entered into contracts prior to January 2008.<sup>19</sup>

Climate change programs are designed to change the behavior of end users by increasing the cost of energy, which, in turn, induces end users to choose different technologies, or encourage conservation or energy efficiency improvements. Under its current steam supply contract with PEB, UC-Berkeley will incur **no** cost increase for its use of steam, and thus, it has no incentive to modify its energy usage or behavior. This consequence erodes the effectiveness of the Cap-and-Trade Regulation, because, unlike other consumers of steam subject to the program, these costs will not be realized by UC-Berkeley, the end user. Further, because CARB is required under AB 32 to **prevent any increase** in the emissions of toxic air contaminants or criteria air pollutants as part of the Cap-and-Trade Regulation,<sup>20</sup> potentially forcing the end user to switch to older, higher emitting boilers is contrary to this express statutory directive.

These burdensome costs to PEB are expected to consume all of the profits for its facility in advance of the first compliance period and will force the facility to operate at increasing losses over time. As noted above, higher emitting boilers would likely be used to provide steam to UC-Berkeley if PEB is forced to discontinue its operations. However, given the physical constraints in the Berkeley area, it is unlikely that a new facility could be constructed in the area to replace the corresponding loss in steam or electricity generation capacity. Because Berkeley is located within a constrained "load pocket" area in this regard, any replacement generation would be located further away from existing load centers (i.e., Berkeley). Also, it should be noted that PEB today has "black start" capability and, therefore, can help restart the local electricity grid and can operate independently from the grid to supply power and steam to UC-Berkeley during a blackout. Thus, in addition to resulting in higher emissions of GHG and

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<sup>17</sup> In adopting the Cap-and-Trade Regulation, the Board directed CARB Staff to "monitor progress on bilateral negotiations between counterparties with existing contracts that do not have a mechanism for recovery of carbon costs associated with cap-and-trade for industries receiving free allowances pursuant to section 95891, and identify and propose a possible solution, if necessary." Resolution 11-32, 12.

<sup>18</sup> Of course, in the circumstances where entities receive free allowances but have no corresponding increase in energy cost (due to a fixed price energy supply contract), CARB should not provide such entities with free allowances. Instead, CARB should provide free allowances to the counterparty who incurs such costs.

<sup>19</sup> See Quebec Regulation, Section 39; Table A of Part I of Appendix C. PEB will provide comments to CARB's proposed amendments to the Cap-and-Trade Regulation to allow for the use of compliance instruments issued by linked jurisdictions.

<sup>20</sup> Health & Saf. Code, § 38570(b)(2).

criteria pollutants, a shutdown of PEB—as a consequence of the Cap-and-Trade Regulation—would threaten local stability and reliability, and eliminate the facility’s ability to provide critical services to the community in the event of a natural disaster or other emergency.

### **Conclusion**

CHP provides reliable and highly efficient energy and is important to California’s ability to meet its GHG emission reduction goals under AB 32. To this end, CARB Staff should recognize the importance of PEB and allocate allowance auction proceeds to PEB to ensure that PEB is not forced to incur such enormous costs, which jeopardize its continued operation.

We look forward to our continued efforts with CARB Staff to resolve this important issue.

Respectfully submitted,



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