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May 21, 2013

Attn: Air Resources Board Staff
California Air Resources Board
1516 Ninth St, MS-43
Sacramento, CA 95814-5512

Re: Proceeding may1-unilegbutfor-ws

Dear Air Resources Board Staff:

As a University of California – Berkeley (UC Berkeley) researcher who has been involved in combined heat and power (CHP) policy and market development in California, and who is advising the UC Berkeley campus on options for the future of its campus CHP plant, I participated in the May 1, 2013 Air Resources Board (ARB) workshop for “University, ‘But For’, and Legacy Contract” CHP systems and their treatment under the AB32 / cap-and-trade program. I write this letter because I have a few clarifying questions and comments based on the presentations at the workshop.

First, along with others who participated in the workshop, I question why universities should be separated from other state and municipal entities with regard to their treatment under the cap and trade program? I suggest that the Air Board consider granting the same status to any CHP systems being owned and operated by state agencies, cities, and other municipal entities, as well as systems sited at municipal and state facilities but owned and operated by a third party, unless they can instead be addressed under the “legacy contracts” provisions being discussed. There may not be many of these facilities but it seems they should be similarly not disadvantaged by their investments in energy-efficient technology for onsite power generation.

Additionally, as raised at the workshop, if a university facility were not one of the 11 existing regulated entities but had emissions growth to exceed the 25,000 mT/year threshold in a future year (after 2015), how would that campus be treated under the future program?

Next, what was not made clear in the workshop were how the values for 0.431 allowances per MWh for electrical output and 0.06244 allowances per MMBtu of thermal output were derived? Further details here would be appreciated.

Finally, I remain concerned that these proposed measures by ARB staff are sufficient to alleviate *some but not all of the additional difficulties that the AB32 program is imposing on the CHP market in California*, both in the near and longer terms. While it is true that in an overall sense CHP can be (and typically is) more efficient than new stand-alone power generation, CHP systems will be exposed to direct cap and trade impacts through higher natural gas prices in the second compliance period (after 2015) when only a portion of the larger power generation mix will be similarly affected.

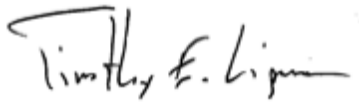
This issue of the benchmark of comparison for CHP in the California grid and how CHP systems will ultimately be impacted as the cap and trade program continues to evolve is one that my colleagues and I hope to continue to discuss with the Air Resources Board.

In summary, it is important for the ARB to review the options and then determine:

- 1) Why should the allowances being offered to universities that exceed the emissions threshold not also be extended to other state and municipal entities that have similarly made progressive investments in energy efficient CHP plants?
- 2) How would campuses that do not exceed the threshold now but grow enough to exceed it in the future be treated?
- 3) How were the 0.431 allowances per MWh for electrical output and 0.06244 allowances per MMBtu of thermal output derived?
- 4) Has ARB done analysis demonstrating that well-operating CHP systems at sites that exceed 25,000 mT/year in emissions (and thus are required to purchase allowances) are unlikely to be adversely affected economically by the program during the second compliance period, as suggested at the workshop?

Once again I appreciate the opportunity to provide these comments and we applaud California for its cap-and-trade program.

Respectfully submitted,

A handwritten signature in black ink that reads "Timothy E. Lipman". The signature is written in a cursive, flowing style.

Timothy E. Lipman, PhD