



OFFICE OF THE EXECUTIVE VICE PRESIDENT -
BUSINESS OPERATIONS

OFFICE OF THE PRESIDENT
Budget and Capital Resources
Energy and Utility Services
1111 Franklin Street, 6th Floor
Oakland, California 94607-5200
Phone: (510) 987-9127
Fax (510) 987-0752

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These written comments expand upon the concerns expressed by the University of California (the University) at the CARB public workshop meeting held at Cal EPA Headquarters in Sacramento, December 14, 2009.

In its AB32 Scoping Plan, CARB recognizes the importance of CHP as an emission reduction strategy that will help California achieve the goals codified in AB 32, and calls for the creation of 4,000 MW of additional CHP generation. The University of California (the University) embraces this finding and goal, but is concerned that Cap and Trade may impact CHP operators in ways that create disincentives to retain and develop CHP plants.

The University believes that the simplest and fairest way to incorporate CHP into Cap and Trade would be to create a stand-alone CHP sector that is regulated separately from the conventional, single-output electrical generation sector. The University operates five CHP plants that would be subject to Cap and Trade regulation as currently proposed. These plants are significantly more efficient than conventional separate heat and power generation; for example, UC Irvine's CHP plant emits 22% less greenhouse gas than procured grid power and natural gas-fired boiler operation.¹ **To account for the efficiencies of CHP compared to separate heat and power generation, the University also urges CARB to allocate allowances to CHP operators based on separate heat and power double benchmarks.** These recommendations are consistent with those of the Cogeneration Association of California (CAC) and the California Cogeneration Council (CCC). Additional details on each of these recommendations may be found in the CAC's and CCC's October 2009 written comments to CARB².

The University has reservations with the CPUC/CEC recommendation³ to bifurcate CHP's electric and thermal production and regulate the separate outputs in electrical generation and commercial/industrial sectors, respectively. **Under the CPUC/CEC recommendation, the University is concerned that the net cost of operating CHP to meet onsite electric and thermal loads will exceed the combined cost of purchasing electricity from the grid and purchasing the natural gas required to operate boilers to meet the thermal needs of a campus.** The University's misgivings in this regard are compounded by the lack of clear guidelines from CARB or from the CPUC/CEC on how the thermal output of topping/combined cycle CHP plants will be handled within Cap and Trade.

The University seeks assurance from CARB that Cap and Trade will not disincentivise the continuing operation of CHP plants, the expansion of existing CHP plants, or the development of new plants. More specifically, the University requests that CARB clarify how the thermal output of topping/combined cycle CHP plants would be treated if the CPUC/CEC Cap and Trade recommendations are adopted. Additionally, **if CARB decides to allocate allowances to retail providers to offset rate**

¹ Data supplied by UC Irvine

² CCC and CAC recommendations are posted here: <http://www.arb.ca.gov/lispub/comm2/bccommlog.php?listname=sept-9-chp-ws>, recommendations 11 and 15 respectively.

³ See "Final Opinion and Recommendation on Greenhouse Gas Regulatory Strategies," CEC-100-2008-007-F, Title 6, pp. 220 - 230

increases, the University strongly suggests that operators of CHP plants serving onsite electric and thermal loads also receive allowances. Failure to do so will increase the cost of operating a CHP plant, relative to purchasing grid electricity and operating boilers, creating a powerful disincentive to continue operating or expand existing CHP plants or develop new CHP plants.

In addition, the University strongly discourages CARB from allocating allowances to generators based on historical emissions levels. This allocation method effectively rewards inefficient, heavily polluting plants while penalizing emitters that have previously invested in technologies, such as CHP and thermal energy storage, that minimize pollution and maximize plant efficiency.

Were allowances to be allocated based on historical emissions levels, the University is also concerned that it will be penalized for being an aggressive early actor on energy efficiency. Under Cap and Trade, one of the primary emission abatement strategies for operators of onsite CHP plants would be to implement demand-side energy efficiency measures. Between 2009 and 2012, the University will invest approximately \$250M in energy efficiency projects, substantially reducing its emissions before the onset of Cap and Trade. If CARB elects to allocate allowances based on historical emission levels, the University seeks clarification on how CARB will account for voluntary early actions that reduce emissions.

The University also seeks clarification on how CARB plans to accommodate new CHP plants within Cap and Trade. Absent other subsidies or incentives, any new plants, including CHP, would be at an obvious disadvantage if allowances were allocated to generators based on historical emissions levels. **Consistent with the goals of the AB 32 Scoping Plan, the University urges the adoption of final regulations that encourage development of new CHP.**

The University strongly favors a three-year compliance period to reduce costs and further recommends that CARB streamline its proposed procedures for allowance surrender. In its draft Cap and Trade guidelines, CARB proposed a multi-step allowance surrender process consisting of an initial allowance surrender, data review, reconciliation, and final surrender. Under this proposed system, by December 31 of the third compliance year, a covered entity would be required to make an initial allowance surrender based on:

- 1) That entity's verified emissions for the first two years of the compliance period, and
- 2) A percentage of the entity's annual average emissions calculated over the first two years of the compliance period.

Once the entity receives a positive verification for its third compliance year, its initial allowance surrender would be compared to its actual surrender obligation. If this comparison determines that an entity has failed to surrender a sufficient number of valid compliance instruments, then the entity must surrender the outstanding balance within 30 days or face a penalty.

The University believes that this system is unnecessarily cumbersome and that CARB would greatly reduce compliance difficulty and costs if it simply required a covered entity to surrender allowances after receiving positive verification for its third year of emissions data.

As a CHP plant operator and a large onsite emitter, the University anticipates that it will face significant compliance costs under the narrow scope of Cap and Trade. **While it applauds the goals of AB 32, the University depends on the State of California for its operating budget and is concerned that without increased funding from the state, there is a strong potential that the University's only recourse will be to pass along the costs AB 32 compliance to its students.** The University urges CARB to consider the impact of AB 32 compliance on state agencies, particularly institutions of higher education, when determining how allowances and revenue from allowance auctions are allocated.

Sincerely,



George Getgen
Director, Facilities Management Services
University of California, Office of the President