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STATE OF CALIFORNIA

Energy Resources Conservation And Development Commission

In the Matter of: 2008 Rulemaking on
Implementation of the Waste Heat and Carbon
Emissions Act Pursuant to Assembly Bill 1613

Docket No. 08-WHCE-1

COMMENTS OF THE COALITION FOR SUSTAINABLE CEMENT MANUFACTURING AND ENVIRONMENT ON COMBINED HEAT AND POWER TECHNICAL GUIDELINES

The Coalition for Sustainable Cement Manufacturing and Environment (CSCME) herein presents its limited comments on the California Energy Commission's (CEC's) staff proposal for Combined Heat and Power (CHP) Technical Guidelines (Guidelines). CSCME members have limited existing CHP facilities, but are seriously contemplating development of new CHP facilities, particularly bottoming cycle CHP facilities, as part of their GHG mitigation obligation under AB 32. Bottoming cycle CHP represents the use of waste heat from an industrial or other process to produce electricity. It is therefore a form of waste heat recovery or energy efficiency. The California Air Resources Board (CARB) has set a goal of achieving a 6.7 million metric tonnes reduction of carbon dioxide equivalents. In order for this goal to be met, *all* CHP that produces less GHG than the separate production of electricity and industrial or commercial process heat or steam should be encouraged.

CSCME members do not currently contemplate selling power to electric utilities. Thus, they are not likely to fall within the Guidelines associated with Assembly Bill 1613 implementation. However, as noted by CSCME and separately by a proponent of waste heat recovery implementation and the CEC's workshop on the Guidelines, the definition of CHP in AB 1613 is not clear as to whether bottoming cycle CHP is included.

The AB 1613 definition states:

"Combined heat and power system" means a system that produces both electricity and thermal energy for heating or cooling from a single fuel input that meets all of the following:

- (1) is interconnected to, and operates in parallel with, the electric transmission and distribution grid.
- (2) Is sized to meet the eligible customer-generator's onsite thermal demand.
- (3) Meets the efficiency standards of subdivisions (a) and (d) and the greenhouse gases emissions performance standard of subdivision (f) of Section 2843.

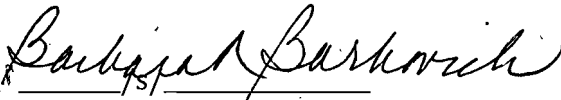
This definition appears directed toward topping cycle CHP. Bottoming cycle CHP, on the other hand, uses waste heat from an industrial (or other) process to produce electricity. This is heat that would otherwise have no useful purpose. As such, it is what is left over after the customer-generator's onsite thermal demand is met and thus cannot be sized to meet that demand.

CSCME has two concerns. The first is that public policy encouraging CHP should consistently remember that bottoming cycle CHP exists and that it has a place in meeting the CARB's Scoping Plan and related policy goals. The second concern is that any public policies that apply to topping cycle CHP, and that provide incentives or eliminate disincentives for CHP that results in less emissions than the separate production of electricity and process heat or steam, also apply to bottoming cycle

CHP. While CSCME does not currently contemplate having any excess power to sell to the utilities, intending instead to use the electricity on-site, it believes that all public policy regarding CHP, including the development of the Guidelines in this proceeding, should address both topping and bottoming cycle facilities:

Furthermore, in either case, for purposes of meeting AB 1613's 60 percent efficiency standard, the Guidelines should calculate the efficiency using the approach in the PURPA guidelines. We note that, in those guidelines, if there is no supplemental firing in bottoming cycle CHP, there is no need to calculate the efficiency because it is effectively infinite.

Respectfully submitted,

A handwritten signature in cursive script, reading "Barbara R. Barkovich".

Barbara R. Barkovich, Ph.D
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Consultant to CSCME

Dated: April 27, 2009