UNITED STATES CLEAN HEAT & POWER ASSOCIATION

September 24, 2008

Ms. Mary Nichols, Chair,
Mr. James Goldstene, Executive Officer
Mr. Chuck Shulock, Chief
California Air Resources Board
1001 I Street
Sacramento, CA 95814

RE: USCHPA Comments on the CHP Recommendation of the AB 32 Draft Scoping Plan & Appendices

Dear Chair Nichols, and Messrs. Goldstene and Shulock:

USCHPA appreciates the opportunity to submit comments on CARB's Climate Change Draft Scoping Plan (DSP) and Appendices.

USCHPA is the national association of companies, organizations, and individuals who recognize the benefits and seek to increase the use of combined heat and power (CHP) and clean distributed generation (DG) throughout the U.S. economy. Our membership includes 70 corporate members representing manufacturers of equipment used for CHP, as well as installers, users, consultants, engineering firms, and non-profit environmental and public-interest groups who recognize and seek the important efficiency, environmental, and reliability benefits offered by CHP and clean DG.

USCHPA's comments focus on the following issues:

CHP is Nationally Recognized as a Cost Effective and Important Measure to Reduce GHG Emissions

CHP can typically result in 35 percent or more reduction in GHG emissions compared with the more common method of buying electricity from the electric utility and making heat on-site. The climate change benefits of CHP has been recognized by leading firms who have studied climate change, including the recent study by McKinsey (see Figure 1), which shows that CHP applications in the commercial and industrial sectors can profitably reduce greenhouse gas emissions, thereby making greenhouse gas reductions an engine for economic growth. Many other studies also show that encouraging CHP is an important step in reducing climate change while minimizing the impact on the U. S. economy.

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ARB, the CEC, and the CPUC have recognized the many benefits of CHP and supported its use in California, as documented in the DSP[1]. *USCHPA encourages the ARB to continue to pursue its preliminary recommendation to target an additional 4,000 MW of new CHP by 2020.*

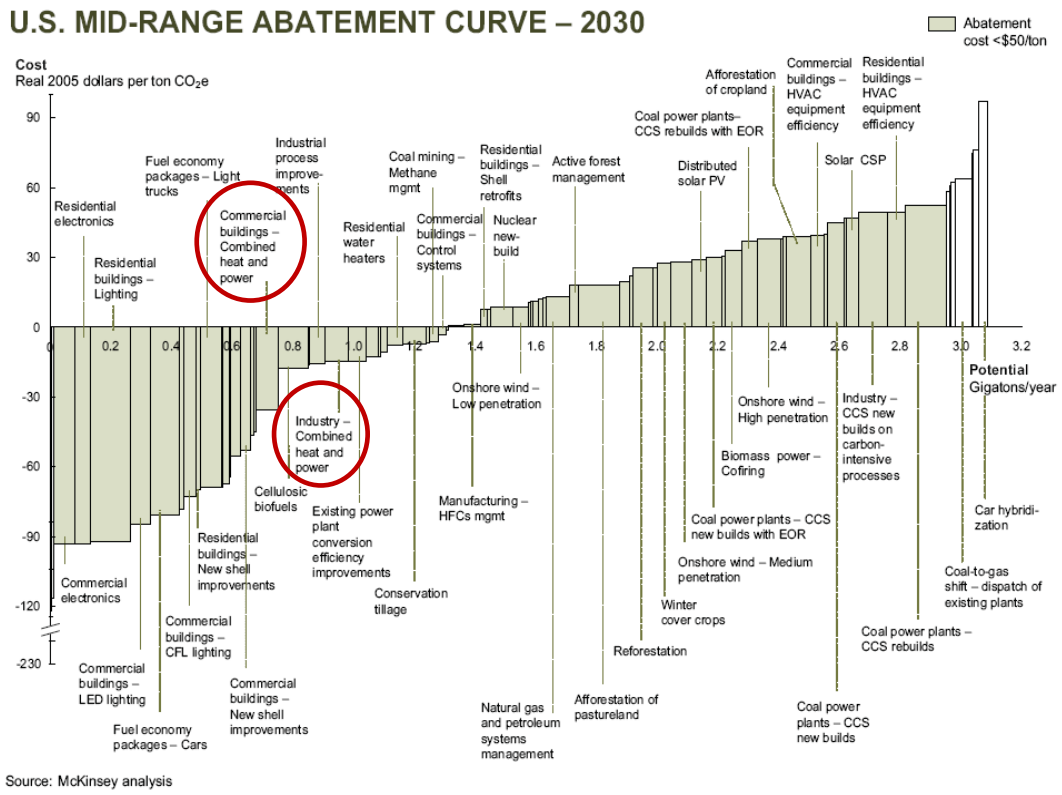

Figure 1. CHP as a Net Benefit to Economy and Climate Change

The Goal for New CHP is Realistic and Important

The goal of 4,000 MW of new combined heat and power included in the DSP is realistic, when compared with the CEC's market assessment study[2] which cites potential for 5,200 MW under a "moderate" scenario with modest changes in policy and incentives. Accounting for 31 percent of the energy efficiency recommendations for the Electricity sector in the DSP, CHP represents a major portion of the potential reductions from that sector. Without a significant contribution from CHP, California may be challenged to satisfy its AB 32 requirement. Consequently, to achieve the CHP goal referenced above, AB 32 implementation must establish a regulatory framework that accommodates CHP. USCHPA's view is that the issues identified below are critical to establishing a framework that encourages CHP to reduce GHG emissions.

[1] Draft Scoping Plan Appendices, pages C-73 through C-75.
[2] CEC-500-2005-173

In addition, the interpretation from the ARB's August 22, 2008 CHP workshop and AB 32 planning documents[3] was that 80 percent of the 4,000 MW goal for CHP would be limited to installations under 5 MW. This appears be based on the CEC Assessment of CHP[4], which cites in its *base case* that there is economic market potential for 1,966 MW of CHP, of which 80 percent is expected from units under 5 MW. *It should be noted, however, that the base case potential falls well short of the 4,000 MW CHP goal included in the DSP*.

To reach the 4,000 MW goal, the State would need to adopt the recommendations provided for the *moderate case* as outlined in the CEC study. The *moderate case* calls for 4,376 MW of CHP, adding 2,410 MW of large CHP by encouraging export of CHP power at wholesale prices. In the moderate case, only 36 percent of the market potential represents CHP units under 5 MW.

USCHPA's position is that both small and large CHP systems can attain very high levels of efficiency and GHG reductions. By limiting the contribution of large CHP systems towards the 4,000 MW goal, ARB will impede the contribution of CHP towards successful AB 32 implementation. USCHPA thus requests that all CHP regardless of size be counted towards the 4,000 MW goal.

CHP is Unique and Will Require Unique Rules to Encourage its Use

A part of the regulatory challenge specific to CHP is that it displaces a GHG-intensive remote power source with a low-GHG local power source. This enables a net reduction in State GHG emissions, but adds GHG emissions to a point source close to the load. As many existing environmental regulations are focused on locally relevant criteria pollutants (NOx, SOx, etc.), they are not naturally set up to contemplate or quantify reductions in "indirect" emissions that occur outside of the facility. When facilities use CHP systems, emissions are reduced at central station power plant, since it no longer needs to burn fuel to generate power for the CHP facility. The EU has found it necessary to create unique environmental rules specific to CHP in order to ensure that the overall GHG benefits from CHP are recognized and rewarded by their climate change regulations[5].

ARB staff recognized the unique attributes of CHP when it estimated GHG reductions from CHP in the DSP appendices[6]. It is critical that ARB continue to recognize that CHP will result in increased GHG emissions on-site but reduce emissions from the grid when developing its cap-and-trade program and other aspects of AB 32 implementation.

[3] ARB, Climate Change Draft Scoping Plan, Measure Documentation Support, pages 24-25.
[4] CEC-500-2005-173
[5] International Energy Agency (IEA), Combined Heat and Power and Emissions Trading: Options for Policy Makers, July 2008, Paris France. http://www.iea.org/textbase/papers/2008/chp_ets.pdf
[6] Draft Scoping Plan Appendices, p. C-75, C-76.

Include CHP Intensive Sectors in the Cap-and-Trade Program

The Draft Scoping Plan proposes to implement a cap-and-trade program to limit the total emissions from capped sectors. Large users such as major industrial sectors as well as electricity generators would be regulated directly under the program. The DSP is recommending that small users (such as residential and commercial natural gas customers) be regulated at the natural gas local distribution company (LDC). The LDC would then be required to purchase allowances to satisfy their compliance obligation, and pass the costs of these allowances on to the small users.

The net result is that for small users, some of which may be able to adopt CHP or other energy efficiency measures to reduce their GHG emissions, this approaches drives behavior and investment only to the degree that those upstream carbon *costs* are manifest in downstream *prices*. Given the stakes at play, this is essentially placing a big bet that upstream operators will be able to pass all their costs along to their customers in the form of higher rates. As anyone who has tried to understand why fuel price increases cause airlines to skimp on beverage service knows, this link is far from perfect. To ensure favorable policy outcomes *even if this bet is wrong*, great care should be taken to exclude only smaller sources that cannot reasonably reduce their GHG emissions. For those smaller users that can adopt GHG reducing measures such as CHP and energy efficiency, regulation should be placed at the point of fuel combustion and not at the LDC. Boiler operators and other energy users who face a cost for GHG pollution will then have a direct incentive to pursue any of a variety of options, from fuel switching to energy efficiency - and by doing so, will directly accomplish the regulatory goal.

To ensure that the cap-and-trade program includes sectors that can implement measures such as CHP to reduce their GHG emissions, USCHPA recommends that ARB include the sectors identified in the CEC's market assessment study[7] *in the cap-and-trade program*.

California's Cap-and-Trade Program Should be Market Based

The State cap-and-trade program should implement measures that rely on the market to determine the price at which greenhouse gases can be emitted. A cap-and-trade program, with periodic auctions to establish a price that regulated sources must pay to emit GHG, could be effective in reducing emissions, but the devil is in the details. Most cap-and-trade proposals contemplate payments by polluters into State agencies or regulated retail providers who then redistribute the wealth throughout the economy. In the extreme case, this is simply a carbon tax by another name, damping or eliminating the power of markets to trade pollution permits and allocate capital accordingly. *USCHPA believes that a functioning and competitive market will always realize greater economic efficiencies – but realizing this goal within the context of a cap-and-trade model must include bilateral contracts that do not have to first go back to the State or regulated entities for wealth redistribution*. Ideally, such a model would price carbon on an output basis, such as pounds per kWh or Btu of useful heat so as to reward efficiency and recognize the global nature of CO_2 pollution.

[7] CEC-500-2005-173

CHP Still is Hampered by Institutional Barriers

While CHP has numerous benefits for both GHG reduction and for grid support, it still faces a number of serious institutional barriers. Many of these were detailed by the CEC study[8], and in the DSP appendices[9]. One of the key barriers is the limited opportunities for sales of excess power, which currently limits the size of new units that could be sized to meet the thermal demands of larger facilities in the State but without adequate terms to sell excess power must be downsized, and thus reducing GHG reduction benefits. One measure that could be considered to help resolve this issue is to include CHP in the State Renewable Portfolio Standard (RPS), as other states have done and is recommended by the Draft Scoping Plan appendices[10]. Another barrier is the lack of a methodology that measures the cost and benefits of CHP. The methodology would be used by utilities to develop tariffs that would be offered to CHP owners. Required by statute (SB 28, 2001), we urge the PUC to complete this rulemaking expeditiously. Other barriers that act to increase the cost and complexity of large CHP installations are interconnection of CHP units that do not qualify for Rule 21, and application of full standby charges. For small CHP systems, the DSP describes the barriers these systems face in terms of selling excess electricity, which is sometimes necessary when sizing the CHP system to meet on site thermal needs. *USCHPA supports efforts the State takes to remove or reduce the barriers described above, either through the AB 32 implementation or by a separate rulemaking, which the State has planned*.

In addition, the Self-Generation Incentive Program (SGIP), which assisted small CHP installations in overcoming economic barriers, no longer applies to small combustion-related CHP. USCHPA believes that this incentive was necessary to encourage small CHP systems, and that it should be reinstated. USCHPA also supports, as an alternative, that ARB dedicate a portion of the cap-and-trade auction proceeds to a CHP incentive that would provide a similar level of economic assistance to small combustion-related installations.

CHP Environmental Regulations Impede Full GHG Benefits

ARB 2007 DG Guidance limits have a dramatic dampening effect on CHP implementation. USCHPA does not find the application of these guidance limits on combustion based CHP technologies to be reasonable or practicable. While these technologies represent significant advances in performance, efficiency and emissions profile on paper, the guidance limits are a major barrier to further CHP deployment and do not reflect what is commercially practicable for CHP at this time. *We recommend that ARB re-examine the impact of the guidance limits and their effective dates on the goal of achieving GHG reductions from the CHP sector*.

[8] CEC-500-2005-173
[9] Draft Scoping Plan Appendices, p. C-74 to C-75.
[10] Draft Scoping Plan Appendices, p. C-75.

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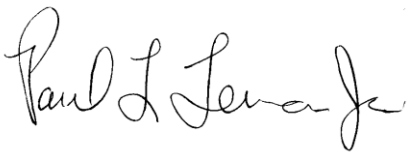
USCHPA respectfully requests that ARB address these comments in adopting the final Scoping Plan. For additional information on any of the issues relating to CHP, please contact me or USCHPA's Executive Director, Jessica Bridges (jbridges@uschpa.org).

Sincerely,



Paul L. Lemar, Jr.
Chair
Carbon Policy Working Group