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Oak Ridge National Laboratory Report Details Potential of Combined Heat and Power

By CostBenefit on Dec 2, 2008 | In Air, Energy, Climate Change GHG Carbon CO2, Government Report, U.S., Costs and Benefits, Free Report at Time of Entry | Send feedback »

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Oak Ridge National Laboratory (ORNL) has released Combined Heat and Power: Effective Energy Solutions for a Sustainable Future, a new report highlighting Combined Heat and Power (CHP) as a realistic solution to enhance national energy efficiency, ensure environmental quality, promote economic growth, and foster a robust energy infrastructure. The report provides an in-depth discussion of current opportunities and challenges to more widespread national CHP deployment, and sets the stage for future policy dialogue aimed at promoting this clean energy solution.

The report asks "What if 20% of generating capacity came from CHP?" If the United States attained this goal by 2030, benefits would include:

* A 60% reduction of the projected increase in carbon dioxide (CO2) emissions by 2030—the equivalent of removing 154 million cars from the road
* Fuel savings of 5.3 quadrillion British thermal units (Btu) annually—the equivalent of nearly half the total energy currently consumed by US households
* Economically viable application throughout the nation in large and small industrial facilities, commercial buildings, multi-family and single-family housing, institutional facilities, and campuses
* The creation of 1 million new highly-skilled, competitive "green-collar" jobs through 2030 and $234 billion in new investments throughout the United States.

CHP, also known as cogeneration, is the concurrent production and use of electricity or mechanical power and useful thermal energy from a single fuel source. CHP includes a suite of technologies that can use a variety of fuels to generate electricity or power at the point of use, allowing normally lost heat to be recovered to provide needed heating or cooling. Using CHP today, the United States already avoids more than 1.9 quadrillion Btu of fuel consumption and annual CO2 emissions equivalent to removing more than 45 million cars from the road.

The report is a joint effort between the Department of Energy's Industrial Technologies Program (ITP) and Oak Ridge National Laboratory and involved substantial input and review by a range of industry, association, and non-governmental stakeholders.

To view the report or to learn more about the ITP's CHP activities, please visit ITP's Industrial Distributed Energy Web site at http://www1.eere.energy.gov/industry/distributedenergy/.