



The Alliance for Industrial Efficiency

Making American Manufacturing Competitive Through Industrial Efficiency

Industrial energy efficiency offers a tremendous opportunity to create jobs and help strengthen America's competitiveness, for example, through Waste Heat Recovery and Combined Heat and Power.

- Combined Heat and Power (CHP) uses a single source for electric generation to create heat as well as electricity. CHP's key advantage is efficiency – twice the energy efficiency of the average power plant.¹
- Waste Heat Recovery (WHR) uses industrial waste heat (or other energy-laden waste streams) that is typically released into the atmosphere and, instead, captures that energy to generate electricity and heat.

CHP currently supplies less than 9% of U.S. power, well below the levels in other industrialized economies like Germany (13%), Russia (31%) or Denmark (53%).² According to the Oak Ridge National Laboratory, CHP could supply 20 percent of U.S. electric capacity by 2030, reducing business costs and creating green-collar jobs. If CHP provided 20 percent of US electric capacity, we could:³

- Create nearly 1 million new highly-skilled technical jobs across the country;
- Save the United States more than 5 quadrillion Btu (Quads) of fuel annually, the equivalent of nearly half the total energy currently consumed by US households.
- Produce 200,000 megawatts of power, equivalent to the power produced by roughly 400 conventional power plants;⁴
- Reduce pollution by an amount equivalent to that produced by approximately one-half of the current passenger vehicles on the road.

The Lawrence Berkeley National Laboratory estimates waste-energy-recovery technologies could generate another 32,000 megawatts of electric capacity.⁵ Such projects provide significant economic and environmental benefits, as evidenced ArcelorMittal's East Chicago WHR plant, which:

- Provides 220 megawatts of energy;⁶
- Reduces the plant's electricity costs by \$100 million *each* year;⁷ and,
- Saves nearly one-million metric tons of carbon dioxide annually.⁸

Congress Can Unleash Waste Energy Recovery's Potential

A survey by The Alliance for American Manufacturing reveals that the vast majority of the American public (86 percent) supports federal efforts to revitalize the manufacturing sector.⁹ A separate poll by Financial Dynamics finds that 70 percent of respondents support tax credits for WHR.¹⁰ The Alliance for Industrial Efficiency urges Congress to act now to remove several policy barriers that impede the realization of industrial efficiency's full potential, including capacity and size limitations on facilities that could qualify for the existing Investment Tax Credit for CHP. We urge Congress to make the following changes to existing law:

- Support previously-introduced, bi-partisan legislation that would increase the capacity limitation by applying the existing 10 percent Investment Tax Credit to a project's first 25 Megawatts, rather than the first 15 megawatts, as is currently the case; remove the current 50-Megawatt size limitation; and allow WHR projects to qualify for this Credit.
- Provide a 30 percent investment tax credit for WHR and highly efficient CHP projects.

(Sources on reverse)

¹ Oak Ridge National Laboratory (ORNL), Dec. 1, 2008, *Combined Heat and Power: Effective Energy Solutions for a Sustainable Future*, at 6 (http://www1.eere.energy.gov/industry/distributedenergy/pdfs/chp_report_12-08.pdf).

² *Ibid* at 22 and International Energy Agency, 2009, *Cogeneration and District Energy: Sustainable Energy Technologies for Today ... and Tomorrow*, at 11 (<http://www.iea.org/files/CHPbrochure09.pdf>).

³ ORNL at 4.

⁴ Estimate assumes typical power generation of 500 MW from a traditional coal-fired power plant.

⁵ LBNL, *Clean Energy Technologies: A Preliminary Inventory of the Potential for Electricity Generation*, 2005, at 3 (concluding that clean energy technologies could provide 95,696 megawatts, of which approximately 50,000 are from waste-energy-recovery applications) (<http://www.osti.gov/bridge/servlets/purl/843010-3bxGVs/native/843010.pdf>).

⁶ Primary Energy Recycling Corp (PERC) website (reporting a combined 220 megawatts of installed capacity; calculation of thermal energy based on energy content of reported steam capacity) (<http://www.primaryenergyrecycling.com/projects.htm>).

⁷ Chris Steiner, "Gray is the New Green," *Forbes*, Sept. 15, 2008 (http://www.forbes.com/forbes/2008/0915/054_2.html).

⁸ Primary Energy Recycling Corp website.

⁹ The Mellman Group, "Presentation to the Alliance for American Manufacturing: Findings From A Nationwide Survey Of 1000 Likely 2010 General Election Voters," June 2010, at 5 & 24 (<http://www.americanmanufacturing.org/wordpress/wp-content/uploads/2010/06/10pre607-aam-f2-short.pdf>).

¹⁰ "Americans Agree, 'Let's Capture It': Waste Heat Poll Released," Dec. 16, 2010 (citing FD National Survey of 1200 Adults) (<http://www.heatispower.org/americans-agree-lets-capture-it-waste-heat-poll-released.html>).