



January 18, 2017

Donald Trump
President-Elect of the United States of America
Trump Tower
725 5th Avenue
New York, NY 10022

Re: Strengthening American Manufacturing through Industrial Energy Efficiency

Dear President-Elect Trump:

Congratulations on your election to the Presidency. During the campaign, we greatly appreciated your call to strengthen America's manufacturing sector and improve the nation's infrastructure. We urge you to make the increased deployment of combined heat and power (CHP) and waste heat to power (WHP) a cornerstone of your agenda, as it underpins both of these priorities. Our organizations look forward to working with you to help make America's manufacturing sector more competitive and resilient. Accordingly, we urge that your Administration prioritize expansion of CHP and WHP as a core part of your infrastructure agenda to reduce energy costs for – and increase the competitiveness of – American manufacturers.

As we explain below, increasing deployment of CHP and WHP can advance your Administration's priorities by:

- Creating 232,000 to 712,000 new jobs in the design, construction, installation, and maintenance of equipment;¹
- Saving American manufacturers \$140-billion on their energy bills by 2030,² making them more competitive;

¹ EPA, March 2015, "Catalog of CHP Technologies" at Table 2-4 and 5-2 (https://www.epa.gov/sites/production/files/2015-07/documents/catalog_of_chp_technologies.pdf) (reporting capital costs ranging from \$1,400 to \$4,300/ kW, dependent on prime mover and size); Oak Ridge National Laboratory, December 2008, "Combined Heat and Power: Effective Energy Solutions for a Sustainable Future" (<http://info.ornl.gov/sites/publications/files/Pub13655.pdf>) (estimating four jobs created for every one-million dollars expended).

² Alliance for Industrial Efficiency, September 2016, "State Ranking of Potential Carbon Dioxide Emission Reductions through Industrial Energy Efficiency" (http://alliance4industrialefficiency.org/wp-content/uploads/2016/09/FINAL-AIE-State-Industrial-Efficiency-Ranking-Report_9_15_16.pdf).

- Increasing the use of clean, domestically produced natural gas; and
- Making the electric grid more reliable by diversifying generation.

CHP uses natural gas to simultaneously produce both heat and electricity. WHP captures waste heat from an existing industrial process and uses it to produce electricity. By using a single source to generate both heat and power, a CHP facility can be twice as efficient as traditional power generation, while WHP can produce valuable power from heat otherwise vented into the air. Both technologies lower fuel use for the same level of productive output, saving American manufacturers money and making them more competitive.

How Traditional Power Generation Holds Back Manufacturing

As you know, energy production is inherently wasteful. Roughly two-thirds of energy inputs are lost as waste heat at the point of generation. Additional losses occur while transmitting that electricity to the end user, costing manufacturers and other businesses money.

The industrial sector is especially hard-hit by this waste for the simple reason that it is the largest energy user in the United States, consuming about one-third of all U.S. energy production. That energy use imposes a significant cost to the companies that must purchase it to fuel their processes. What's more, industrial energy use is projected to grow by 22 percent by 2025, exacerbating the problem.³ America needs to make energy production for manufacturing efficient, so that we can compete with other countries.

Fortunately, we can produce energy for manufacturing more efficiently. A recent study by the Department of Energy found that investments in more energy-efficient technology could reduce industrial energy costs by 15 to 32 percent while maintaining the same level of production.⁴ Investing in CHP and WHP alone can help American businesses save over \$140-billion on their energy bills by 2030.⁵ By cutting wasteful spending, manufacturers can expand their core operations, hire more workers, or increase competitiveness by reducing product costs. But, as outlined in a report from the Department of Energy, critical barriers stand in the way of achieving those energy savings and making American manufacturers more competitive.

New Infrastructure to Enhance American Competitiveness

Given the proven benefits and sound economics of CHP and WHP, we urge your Administration to embrace the following **policies to foster growth in the industrial sector**:

1. Include CHP and WHP Investments in Your Proposed American Energy & Infrastructure Act. Your economic agenda rightly supports "investments in transportation, clean water, a modern and reliable electricity grid, telecommunications, security infrastructure, and other pressing domestic infrastructure needs." Efficient energy production supports a modern and reliable electric grid. This should be done by including both financing and reliability provisions in your infrastructure plan:
 - a. **Innovative Financing:** Develop innovative financing for this infrastructure, using national infrastructure bonds, Private Activity Bonds, an Infrastructure Bank, or

³ U.S. Department of Energy, June 2015, "Barriers to Industrial Efficiency," at 3-4 (http://energy.gov/sites/prod/files/2015/06/f23/EXEC-2014-005846_6%20Report_signed_v2.pdf).

⁴ *Id.*

⁵ Alliance for Industrial Efficiency, September 2016, "State Ranking of Potential Carbon Dioxide Emission Reductions through Industrial Energy Efficiency" (http://alliance4industrialefficiency.org/wp-content/uploads/2016/09/FINAL-AIE-State-Industrial-Efficiency-Ranking-Report_9_15_16.pdf).

other tools. We applaud your recognition of the value of leveraging public-private partnerships and private investments to spur \$1-trillion in infrastructure investment over the next 10 years. To do so, we recommend the use of tax-exempt bonds issued by the federal government for the purpose of providing special financing benefits for qualified CHP and WHP projects. Additionally, we recommend creating an infrastructure bank to support projects like CHP and WHP that help make our electric grid more reliable. These investments would help realize your Administration's vision to "create thousands of new jobs...to build the transportation, water, telecommunications and energy infrastructure needed to enable new economic development in the U.S."

- b. **Electric Reliability**: Because CHP is a home-grown decentralized energy source, facilities that use CHP can operate independently of the grid and keep the lights and power on during extreme weather events. We witnessed these benefits firsthand in October 2012 during Superstorm Sandy when New York University's Washington Square campus remained warm and bright due to its 13.4-megawatt CHP system, while the University's nearby Langone Medical Center was forced to evacuate critical care patients in the midst of the storm because it lacked a similar unit. To avoid such incidents in the future, we urge your Administration to lead by example and require consideration of CHP in critical infrastructure, like public buildings, hospitals and universities.
2. **Provide Guidance to States about the Ability to Make Manufacturers More Competitive and Reliable through Utility Planning**. Despite their benefits, many states and utilities have adopted rules that discourage the installation of alternative generation technologies like CHP and WHP at factories and other facilities. But investing in these technologies will make manufacturers more competitive, help lower utility bills for all ratepayers, and jumpstart investments in energy infrastructure. The Administration should offer technical assistance to states to help them lower barriers to CHP.
3. **Extend and Strengthen the Investment Tax Credit (ITC) for Combined Heat and Power and add Waste Heat to Power to the ITC**. By generating heat and electricity from a single fuel source, CHP can be twice as efficient as the separate generation of heat and power. Since 2008, the tax code has included a modest 10 percent investment tax credit for limited CHP projects (the first 15 megawatts of projects less than 25 megawatts). The ITC did not extend to WHP. Moreover, it was allowed to expire at the end of 2016. To encourage use of CHP and WHP, the Administration should defend and extend tax incentives for CHP, lift the size and capacity constraints, and clarify that WHP is included.
4. **Expand Voluntary Efficiency Improvements by Industry**. The industrial sector has already made significant investments in energy efficiency. In fact, more than 150 manufacturing participants, representing 11.4 percent of U.S. manufacturing have committed to improve their efficiency by 25% over a 10-year period through the Department of Energy Better Plants program. They have already saved \$2.4-billion, and expect to save \$11-billion by 2020, while reducing air pollution. To help realize the vast economic and environmental potential in the manufacturing sector, we ask you and your Administration to urge every manufacturer to commit to a 20% improvement in energy efficiency by 2020.
5. **Establish American Leadership in Energy Efficiency**. The United States is falling behind other nations in our focus on enhanced competitiveness for industry. To establish our leadership and enable US manufacturers to make continuous energy improvements, the Administration should encourage businesses to adopt ISO 50001 readiness, the only internationally recognized standard for measuring energy efficiency.

We appreciate your commitment to invest in American infrastructure and energy independence. Doing so can help make U.S. manufacturers more competitive by saving money on their utility bills, while simultaneously creating jobs in the design, construction, installation and maintenance of advanced energy technology.

We look forward to working with your Administration as you advance this agenda. If you have any questions, please reach out to Jennifer Kefer (Jennifer@dgardiner.com), Executive Director of the Alliance for Industrial Efficiency.

Sincerely,

Alliance for Industrial Efficiency

Pew Charitable Trusts

Ameresco

Schneider Electric

Heat is Power Association

Sheet Metal & Air Conditioning Contractors'
National Association (SMACNA)

National Electrical Contractors Association
(NECA)

The Stella Group, Ltd

Ormat Technologies Inc.

Veolia North America

cc: Thomas Pyle, Travis Fisher, and Andrew Wheeler