Full Committee Hearing: Energy Tax Policy in 2016 and Beyond
Date: Tuesday, June 14, 2016

Statement from:

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The Honorable Orrin Hatch (R-UT)
Chairman
Senate Finance Committee
104 Hart Office Building
Washington, DC 20510

The Honorable Ron Wyden (D-OR)
Ranking Member
Senate Finance Committee
221 Dirksen Senate Office Building
Washington, DC 2051

Dear Chairman Hatch and Ranking Member Wyden:

The Alliance for Industrial Efficiency (hereinafter, "The Alliance") appreciates the opportunity to comment on the Senate Finance Committee Hearing on Energy Tax Policy. The Alliance is a diverse coalition that includes representatives from the business, environmental, labor and contractor communities, and has members in every state. We are committed to enhancing manufacturing competitiveness and reducing emissions through industrial energy efficiency, particularly through the use of clean and efficient power generating systems, such as combined heat and power (CHP) and waste heat to power (WHP). We write now to urge the Senate Finance Committee to support policies that would help advance the deployment of these important clean-energy technologies.

We commend the Committee for holding a hearing on energy tax policy on June 14, 2016. We recognize the importance of providing opportunities for both sides of the aisle to present their ideas to improve the tax code as it relates to energy issues. Our comments recommend that the Committee extend and strengthen the Section 48 clean-energy tax credits as soon as possible, which would promote deployment of CHP and WHP technologies. The existing Section 48 tax credit must also be expanded to include waste heat to power, as reflected in S. 913, which the Finance Committee approved unanimously this winter. We also support Ranking Member Wyden's technology-neutral clean energy tax incentive proposal (S. 2089), and look forward to working with Senator Wyden to help advance this proposal when comprehensive tax reform moves forward.

I. CHP and WHP offer economic, reliability, and environmental benefits.

CHP and WHP are proven and effective energy resources that can help address current and future global energy needs and enhance manufacturing competitiveness while reducing

environmental impacts. By generating both heat and electricity from a single fuel source, CHP dramatically lowers emissions and increases overall fuel efficiency – allowing utilities and companies to effectively "get more with less." CHP can operate using more than 70 percent of fuel inputs. As a consequence, CHP can produce electricity with roughly one-quarter the emissions of an existing coal power plant. WHP can generate electricity with no additional fuel and no incremental emissions. Due to its scale, a single CHP or WHP investment can achieve significant emission reductions.

Investment in CHP and WHP systems stimulate the local economy both directly and indirectly. By dramatically reducing electric power demand (and related energy costs) for industrial sources, CHP can directly make U.S. manufacturing more competitive. For instance, the ArcelorMittal steel facility in East Chicago, Indiana, reports $20 million in annual energy savings from its CHP facility. The company found that these cost savings made the plant's steel more competitive by effectively lowering the production cost by approximately $5 per ton.[1] Further, industrial companies with CHP, such as ArcelorMittal, can use the money they save on energy to expand production and employment. Such savings are already being realized at thousands of locations nationwide (though, as noted below, the opportunity is far greater).

CHP and WHP projects create direct jobs in manufacturing, engineering, installation, operations, and maintenance, which in turn, increase the economic competitiveness of companies that install the systems and receive the energy savings benefits. Individuals employed as a result of CHP and WHP installations are able to spend their income on goods and services within their local communities, while businesses and consumers can reinvest the money these systems save them on their energy bills into other goods and services as well. For example, businesses may reinvest savings to support facility expansion or other capital projects or to hire and/or retain workers. This activity creates and retains jobs and induces economic growth in local communities.[2]

A 2013 Natural Resources Defense Council issue paper states that each gigawatt of installed CHP capacity may be reasonably expected to create and maintain between 2,000 and 3,000 full-time equivalent jobs throughout the lifetime of the system. These jobs would be in manufacturing, construction, operations and maintenance, as well as indirect jobs from redirection of industrial energy expenditures and the spending of commercial and residential energy bill savings on other goods and services.[3]

What's more, because CHP projects can operate independently of the grid, these projects can increase the reliability of our power sector, by ensuring that manufacturers, universities and hospitals "keep the lights on" during extreme weather events that can compromise the electric

[1] Center for Clean Air Policy, Jul. 2013, "White Paper: Combined Heat and Power for Industrial Revitalization: Policy Solutions to Overcome Barriers and Foster Greater Deployment," at 10 (http://ccap.org/assets/White-Paper_Combined-Heat-and-Power-for-Industrial-Revitalization_CCAP_July-20131.pdf).
[2] Natural Resources Defense Council, Apr. 2013, "Combined Heat and Power Systems: Improving the Energy Efficiency of Our Manufacturing Plants, Building, and Other Facilities," at 6 (http://www.nrdc.org/energy/files/combined-heat-power-ip.pdf).
[3] *Id.*

grid.[4] As a testament to the power resiliency of CHP systems, during both Hurricane Katrina in 2005 and Hurricane Sandy in 2012, facilities with CHP continued to have access to power and thermal amenities, including several hospitals that were able to continue serving patients.[5] As Senator Menendez (D-NJ) alluded to during his questions at the June 16 hearing,[6] while more than eight-million residents in the Mid-Atlantic lost power during Hurricane Sandy in October 2012, CHP systems helped several large energy users — New York University, Long Island's South Oaks Hospital, Co-op City in the Bronx and New Jersey's Bergen County Utilities Authority — stay warm and bright.[7] These islands of power acted as places of refuge for emergency workers, displaced people, and evacuated patients from medical facilities without power.[8]

Across the country, nearly 83 gigawatts of CHP capacity exist at more than 4,400 industrial and commercial facilities, representing over 12 percent of annual U.S. power generation.[9] However, significant potential remains. In fact, this spring (March 2016), the Department of Energy (DOE) published a new report finding that there is an estimated 149 gigawatts of remaining on-site technical potential for CHP and WHP[10] within the U.S.[11] Realizing this potential would create jobs in the design, construction, installation and maintenance of equipment; reduce fuel use and energy costs; and lower greenhouse gas emissions.

Unfortunately, CHP and WHP deployment to date fall far short of this technical potential. Despite the substantial long-term economic benefits, projects require a significant up-front investment with a multi-year payback period. CHP capital costs, range from $1,200 to $4,000 per kilowatt depending on technology, size and site conditions.[12] CHP system owners report payback periods ranging from 1.5 years to 12 years, with a large number of opportunities anticipating payback between 5 to 10 years.[13]

Financial incentives for CHP and WHP can help reduce the initial cost for these projects, shrinking the payback period. It is imperative that appropriate incentives exist for CHP and WHP to support widespread deployment and realize the full suite of CHP and WHP's economic,

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[4] U.S Department of Energy, U.S. Department of Housing and Urban Development, U.S. Environmental Protection Agency, Sep. 2013, "Guide to Using Combined Heat and Power for Enhancing Reliability and Resiliency in Buildings," (https://portal.hud.gov/hudportal/documents/huddoc?id=energy_chp_for_rc.pdf).
[5] NRDC, *supra* note 2.
[6] United States Senate Committee on Finance, Jun. 14, 2016, "Hearing on Energy Tax Policy in 2016 and Beyond." ("We saw in New Jersey after Sandy that Princeton University was able to keep the lights on through its resiliency program, but large parts of the state did not, including our mass transit system.")
[7] Pentland, William, Oct. 31, 2012, "Lessons From Where The Lights Stayed On During Sandy," *Forbes* (http://www.forbes.com/sites/williampentland/2012/10/31/where-the-lights-stayed-on-during-hurricane-sandy/#efe1e20731b3).
[8] *See, e.g.,* U.S. EPA, June 18, 2014, 79 Fed. Reg, 34830, 34899, "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units" (noting that CHP "reduce[s] demand for centrally generated power and thus relieve[s] pressure on the grid.")
[9] U.S. Department of Energy, Mar. 2016, "Combined Heat and Power (CHP) Technical Potential in the United States," at 5 (http://energy.gov/sites/prod/files/2016/04/f30/CHP%20Technical%20Potential%20Study%203-31-2016%20Final.pdf).
[10] Includes traditional topping cycle CHP, WHP (sometimes referred to as bottoming cycle CHP), and district energy.
[11] U.S. DOE, supra note 9.
[12] U.S. EPA, Sept. 2014, "Catalog of CHP Technologies," at Table 2-4, (reporting capital costs ranging from $1,200 to $4,300/ kW – small microturbine on the small side, large gas turbine on the high side of range – dependent on prime mover and size), (http://www.epa.gov/chp/documents/catalog_chptech_full.pdf).
[13] AGA, May 2013, "The Opportunity for CHP in the United States," at Table ES-1 (reporting approximately 35 GW of projects with a payback between 5 to 10 years compared to 6.4 GW with a payback of less than 5 years given current technology costs and electricity prices), (https://www.aga.org/sites/default/files/sites/default/files/media/the_opportunity_for_chp_in_the_united_states_-_final_report_0.pdf).

reliability and environmental benefits. Fortunately, policy solutions with strong bipartisan support allow this.

II. The Alliance urges the Senate Finance Committee to extend Section 48 tax credits

As you know, in December 2015, Congress extended the ITC for solar technologies through 2021 (providing a five-year extension with "start of construction" language). The credit for the non-solar Section 48 technologies, including CHP, was not similarly extended and will expire at the end of this year. At the June 16 Senate Finance Committee Energy Tax Policy hearing, Ranking Member Wyden noted the urgent need to extend the clean-energy tax incentives that expire at the end of this year, as well as to enact the bill the Finance Committee approved that includes WHP in the investment tax credit (ITC). At the hearing, Senator Menendez also expressed support for extending the expiring investment tax credits. We are very grateful for Senator Wyden's and Menendez' leadership on this issue.

The Alliance strongly supports an extension of the existing Section 48 tax credit, which is needed to encourage continued growth of the clean-energy economy. By extending the ITC for all Section 48 technologies, Congress would help improve the energy efficiency and competitiveness of America's manufacturing sector, and enhance the country's energy independence and security.

The Alliance further encourages Congress to clarify that the existing Section 48 ITC for CHP includes WHP. In February 2016, the Senate Finance Committee approved bipartisan legislation making a technical correction to Section 48 and clarified that WHP is a qualifying technology (S. 913). We applaud this action by the Committee. S. 913 addresses the unique attributes of WHP that distinguish it from CHP, and provides critical parity with other power sources eligible for the ITC.

By expanding the Section 48 tax credit to WHP (as reflected in S. 913), Congress would reduce the cost of WHP technologies, diversify our nation's energy mix, create on-site power while lowering fuel use and emissions, and promote enhanced competition among all of our nation's energy sources. We therefore urge Congress to include this simple clarification in any energy tax legislation this year.

III. The Alliance urges the Senate Finance Committee to adopt Ranking Member Wyden's technology-neutral clean energy tax incentive proposal

Ranking Member Wyden's technology-neutral clean energy tax incentive proposal (the "American Energy Innovation Act", S.2089, Title V) would eliminate the current 44 separate energy tax breaks and would instead establish three long-term incentives built around energy-efficiency, clean energy, and clean transportation goals. This proposal would simplify energy tax policy and would provide parity and flexibility among clean-energy technologies, including CHP and WHP. We support this approach and look forward to working with Senator Wyden to help advance it when the Senate addresses comprehensive tax reform.

In conclusion, the Alliance encourages the Congress to swiftly enact the extension of the section 48 investment tax credit and clarify that WHP is also eligible for the investment tax credit. We also ask that the Committee include Ranking Member Wyden's technology-neutral clean-energy tax incentive proposal as part of its future tax reform agenda. We are extremely grateful for Senator Wyden's continued leadership on these issues.

CHP and WHP provide scalable, cost-effective approaches to increasing manufacturing competitiveness, enhancing electric reliability, and reducing emissions. Unfortunately, limitations in existing tax policy has prevented manufacturers from realizing these benefits. We look forward to working with the Senate Finance Committee to explore policy options to help realize the full potential of CHP and WHP.

Thank you for the opportunity to comment.

Sincerely,

Jennifer Kefer
Executive Director
Alliance for Industrial Efficiency