



Governor Terry McAuliffe
c/o: Paul Reagan, Chief of Staff
1111 East Broad Street
Richmond, VA 23219

9/11/15



Dear Governor McAuliffe,

We write to urge Virginia to capitalize on the largely untapped potential of industrial energy efficiency (IEE) to help meet state greenhouse gas reduction (GHG) targets in the Clean Power Plan (CPP). States will have great flexibility to determine the best way to achieve emission targets in the Clean Power Plan. By including policies that advance industrial efficiency in its plan, Virginia will strengthen its manufacturing base, promote economic growth, increase grid reliability, and reduce emissions while lowering everyone's electric bills.



We urge Virginia to focus on this specific efficiency opportunity because the industrial sector is one of the sectors with the greatest potential for saving both energy and money. The industrial sector, which includes manufacturing, mining, construction and agriculture, accounts for roughly one-third of all end-use energy demand in the United States and continues to be the largest energy user in the U.S. economy. Studies have estimated that up to 32 percent of industrial energy use could be saved through cost-effective efficiency measures.¹ Further, as states and power companies look to meet GHG emissions reductions under the CPP, efficiency remains the least-cost resource and accordingly serves as the lowest cost compliance option identified by EPA in the proposed rule,² and on a national basis, industrial energy efficiency programs have the lowest cost of saved energy than any other end-use sector.³



By adopting industrial energy efficiency measures, Virginia will cut its manufacturing costs, make its manufacturers more competitive in international markets, and create jobs. Efficiency measures designed to improve a facility's energy productivity enable manufacturers to reduce costs, increase competitiveness and insulate themselves from volatile energy prices in the future. Industrial efficiency technologies such as combined heat and power (CHP) can be twice as efficient as the separate generation of thermal energy and electricity, which significantly cuts costs for businesses. What's more, industrials can reinvest the money they save on energy to expand production and hire more employees. Industrial efficiency offers economic benefits society-wide, helping to postpone or eliminate the need for expensive generation and transmission investments, and keeping energy costs down for all consumers.

IEE will also make Virginia's electricity grid more reliable and enhance energy security by reducing congestion and ensuring factories, hospitals, and universities can keep the lights on during and after extreme weather events.



IEE and CHP also offer emission benefits. CHP can produce electricity with roughly one-quarter the emissions of an existing coal power plant.⁴ Waste heat to power (WHP) can generate electricity with no additional fuel and no incremental emissions. Due to its scale, a single IEE investment can achieve significant emission reductions.



CHP represents 12 percent of U.S. electricity generation today, but a large potential remains. In fact, CHP could produce as much electricity as 250 conventional power plants.⁵ Such full-scale deployment would create jobs in the design, construction, installation and maintenance of equipment; reduce fuel use and energy costs; and lower greenhouse gas emissions.

Despite the many benefits of industrial efficiency, a number of barriers impede greater adoption, including the internal competition for capital that often undervalues efficiency investments, utility business models that disincentivize utilities to fully promote industrial efficiency and CHP, and information barriers that make it harder for industrials to make informed decisions. As Virginia develops its Clean Power Plan compliance strategy, we urge you to consider strong complementary policies that address these hurdles to full deployment of all cost-effective energy efficiency in the industrial sector, and provide programs and incentives that reflect the true value of efficiency. Such policies will further allow power companies to meet compliance obligations under the CPP in a cost-effective manner.

We hope that you will seize the potential for industrial efficiency in Virginia's holistic approach to Clean Power Plan compliance so that you can strengthen industry, increase grid reliability, and cost-effectively reduce emissions. Attached is a resource guide to enable Virginia to take advantage of this opportunity to advance industrial efficiency. Our organizations would be happy to work with your administration as Virginia assesses its compliance options. We are attaching a briefing packet of existing materials to help as you begin this process.

Sincerely,

Jennifer Kefer
Executive Director
Alliance for Industrial Efficiency

Dick Munson
Director, Midwest Clean Energy
Environmental Defense Fund (EDF)

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Senior Vice President of Policy and Research
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Commercial Business
Veolia North America

Enclosure: Industrial Energy Efficiency and the CPP: A Briefing Packet for States

cc: Al Christopher - Director, Division of Energy
cc: Mike Dowd - Director, Virginia Department of Environmental Quality

¹ US DOE, June 2015, "Report to Congress: Barriers to Industrial Energy Efficiency," at iii (http://www.energy.gov/sites/prod/files/2015/06/f23/EXEC-2014-005846_6%20Report_signed_v2.pdf).

² Jeff Hopkins, May 2015, "Modeling EPA's Clean Power Plan: Insights for Cost-Effective Implementation" (<http://www.c2es.org/publications/modeling-epas-clean-power-plan-insights-cost-effective-implementation>).

³ Aden, Nate, et al., 2014, "Beyond Lighting: The Role of Industry Programs in U.S. Ratepayer-Funded Energy Efficiency."

⁴ David Gardiner & Associates and Institute for Industrial Productivity, 2015, "Combined Heat and Power as a Compliance Option under the Clean Power Plan" (reporting incremental emissions of Natural gas CHP of 450 to 600 lbs/MWh, compared to 2000 to 2200 lbs/MWh for coal) (<http://www.dgardiner.com/wp-content/uploads/2015/08/CHP-Pathway-Final-Report-8-18-15.pdf>).

⁵ US DOE-EPA, Aug. 2012, "CHP: A Clean Energy Solution," at 13 (reporting 130 GW of technical potential) (http://www.epa.gov/chp/documents/clean_energy_solution.pdf).