

Testimony of Secretary Collin O'Mara
Delaware Department of Natural Resources and Environmental Control
U.S. Senate Committee on Energy and Natural Resources
S. 2146, the Clean Energy Standard of 2012
May 17, 2012

Chairman Bingaman, Ranking Member Murkowski, and members of the Committee, on behalf of Delaware Governor Jack Markell, thank you for the opportunity to testify today.

For the past three years, we have been working to modernize Delaware's electric power generation fleet in an effort to improve reliability, reduce and stabilize both short-term and long-term energy costs, spur local job creation, improve air quality, reduce greenhouse gas emissions, and improve public health. To achieve these outcomes, we have worked on several initiatives: to spur additional local generation from natural gas combined-cycle, co-generation, and combined heat and power units¹; to transform our largest coal plant into one of the nation's cleanest; to fuel switch or phase-out legacy units; to invest in energy efficiency and demand response; to support transmission and distribution upgrades; and to deploy clean renewable sources of energy (solar, fuel cells, geothermal, and eventually offshore wind when financeable/cost-effective)².

This strategy is resulting in significant private investment and new local jobs in manufacturing, construction, and facility operations. Since 2009, Delaware has enjoyed more than \$2 billion of private investment in energy facility modernization and thousands of jobs created in energy-related industries. Delaware companies, including NRG, Calpine, PBF, DuPont, Perdue, Mountaire, Evraz Steel, and Croda, have all made significant upgrades to their energy facilities. Most of these projects have been true public-private partnerships with state providing assistance either with the financing or expedited permitting to ensure completion. At the same time, we are experiencing declining energy bills and dramatic reductions in carbon emissions and traditional pollutants from our power generation sector.³ These ongoing efforts have reduced air pollution by the equivalent of taking almost half a million cars off the road.

We believe that Delaware's experience is a success, but not unique. It demonstrates that the conversion to a cleaner energy system, as proposed through S. 2146, is not only technically feasible, but also advances numerous policy goals, ranging from enhancing American competitiveness and supporting job creation to improving air quality. A national Clean Energy Standard (CES) provides predictability for consumers and manufacturers alike and encourages private investment in innovation, manufacturing facilities, and deployment at scale—all of which ultimately drive down consumer costs, support job creation, and improve environmental outcomes.

¹ Delaware is working to take advantage of low priced natural gas for in-state generation and also are working with our neighboring states to ensure that additional natural gas from hydraulic fracturing is extracted safely to ensure that current and future generations can benefit from this cleaner source of domestic energy.

² Delaware currently has 1,171 solar photovoltaic systems in operation comprising 28 megawatts of installed capacity. The State Green Energy Program also has enabled the installation of 77 solar thermal water heaters (capacity: 4,712 square feet) and 1,011 geothermal heat pumps (capacity: 5,232.5 tons). Also, Bloom Energy is in the process of installing 30 MW of fuel cell capacity in Delaware.

³ However, Delaware receives more than 90% of its air pollution from upwind sources, and thus our ability to ensure clean air depends on similar actions by upwind states.

Based upon our experience, here are a few recommendations which could strengthen the proposed legislation:

1. ***Complementarity with State Standards:*** Forty states, including Delaware, have adopted some form of a Renewable Portfolio Standard/Goal and/or an Energy Efficiency Resource Standard.⁴ In Delaware, we have seen our energy standard drive manufacturing and construction jobs. Recently, with the help of Senators Carper and Coons, Governor Markell announced the decision of Bloom Energy to manufacture their next generation solid oxide fuel cell in Delaware, creating nearly 1000 jobs on the site of a former Chrysler auto plant which is being transformed into the University of Delaware's Science Technology and Advanced Research (STAR) Park. DuPont is building its North American Photovoltaic Research Center in Delaware and local solar manufacturers, including Motech Americas (photovoltaic) and SolarDock (racking), just received record orders for their products. Hundreds of construction jobs have been supported by the deployment of more than 28 megawatts of solar photovoltaic, more than 5200 tons of geothermal heat pumps, and 30 megawatts of fuel cells.

On behalf of the states with existing standards, we appreciate Section (l) and recommend its continued inclusion to avoid any form of state pre-emption. In addition, we suggest providing authority for the Secretary of Energy in Section (l) subsection (2) to establish an alternative compliance pathway through which states can demonstrate that their policies meet or exceed emission reductions required under the national standard to avoid creation of multiple regulatory regimes.

2. ***Importance of Energy Efficiency:*** This Committee has clearly understood the importance of advancing innovative, non-generation energy opportunities, among them recognizing the power of energy efficiency. This is embodied in the strong, bipartisan passage of the Shaheen/Portman bill (S. 1000) last year. While challenging to integrate into an energy standard primarily established for power generation, investments in technologies that reduce or displace energy consumption, including energy efficiency, geothermal, solar thermal, district heating, and more, have significant potential to reduce emissions in a cost-effective manner.

In particular, energy efficiency is our nation's greatest energy supply resource and represents the greatest potential to reduce energy costs compared to any other supply alternative.⁵ Allowing energy efficiency technologies into the CES from the beginning

⁴ Delaware's Renewable Portfolio Standard is 25% by 2025 and the state's Energy Efficiency Resource Standard is 15% by 2015. Thirty-one states have Renewable Portfolio Standard or Alternative Energy and Renewable Portfolio Standard policies: AZ, CA, CO, CT, DE, HI, IL, IA, KS, MA, ME, MD, MI, MN, MS, MO, NV, NH, NJ, NM, NY, NC, OH, OR, PA, RI, TX, VT, WA, WI, WV, as do DC and PR. Eight additional states have renewable portfolio goals: AK, FL, IN, OK, ND, SD, UT, VA. Twenty-six states have Energy Efficiency Resource Standard policies currently in place: AZ, AK, CA, CO, DE, HI, IL, IN, IA, MA, ME, MD, MI, MN, NC, NM, NV, NY, OH, OR, PA, RI, TX, VT, WA, WI. (www.c2es.org; www.aceee.org)

⁵ ACEEE has estimated that 16-30% of all energy consumption could be reduced through cost-effective efficiency measures by 2035. Cost-effective energy efficiency means that by definition these activities would reduce energy costs from the reference case and thus would significantly reduce the price impact of the CES.

will ensure that the standard reduces overall implementation costs, even below the status quo reference case projected by the Energy Information Administration (EIA).⁶ Significant efficiency opportunities exist in every state that are achievable and easy to implement in the near-term—and several states have repeatedly demonstrated the numerous benefits of energy efficiency investments, including local job creation, increased disposable income to support local economies, healthier buildings, and more productive employees.

While Section (n) recognizes the importance of energy efficiency and other electricity demand reducing technologies, we encourage the inclusion of these technologies in the initial standard, possibly in a manner similar to the treatment of heat from a CHP unit, rather than waiting for a report from the Secretary of Energy. Specifically, we suggest that S. 2146 include these technologies as eligible resources and direct the Secretary of Energy to establish a national Evaluation, Measurement, and Verification (EM&V) standard, which would define how efficiency investments would be counted towards the CES requirements.⁷

Alternatively, Section (n) could give the Secretary of Energy the ability to incorporate the findings of the required report directly into the standard, rather than as recommendations, if they are demonstrated to reduce compliance costs. Ideally, the report would be required much earlier than the currently drafted three year timeframe, which would have the unfortunate and unintended consequence of unnecessarily delaying cost-savings and creation of local jobs for multiple years.

Either approach would drive additional near-term investment, significantly reduce compliance costs (below the EIA reference case), spur greater job creation,⁸ and unleash opportunities to reduce emissions well-below the projected 40% reduction by 2035 at the lowest possible cost.⁹

In addition, we support the language in Section (j), which directs that alternative compliance payments be provided to the states, many of which have a strong track record of implementing energy efficiency programs. Delaware, for example, has worked with the Delaware Sustainable Energy Utility and local electric and gas utilities, including the Delaware Electric Cooperative, Delmarva Power and Light, the Delaware Municipal Electric Corporation, and Chesapeake Utilities, to support a wide range of efficiency programs to help local governments, homeowners, businesses, heavy industry, agriculture, and low-income families.¹⁰

⁶ Delaware, like several other states, is working to determine the best way to integrate established, but separate, RPS and EERS statutes—a challenge which an integrated CES could avoid from the onset.

⁷ The states would be required to implement EM&V standards established by the Secretary of Energy.

⁸ Numerous studies, including recent analysis by ACEEE, have shown that 17-20 jobs are created for every \$1 million invested in energy efficiency compared to less than 10 jobs for traditional energy generation projects.

⁹ If the concern exists that the allowance of energy efficiency could crowd out other technologies, possible remedies include increasing annual CES requirements, including energy displaced by energy efficiency in a utilities' total sales calculation, or allowing unlimited energy efficiency to be credited only during a defined period of time.

¹⁰ Delaware participates in the Regional Greenhouse Gas Initiative and uses the proceeds for efficiency programs.

3. ***Evaluation of emissions:*** The proposed CES presents an opportunity to have all technologies compete fairly and in a manner that aligns economic and environmental interests. However, to ensure that the anticipated reduction in aggregate greenhouse gas emissions are realized, we suggest directing the Secretary of Energy in Section (g) to incorporate lifecycle emissions into the carbon-intensity calculation to allow apples-to-apples comparisons among technologies and to ensure that projected overall emission reductions are achieved.¹¹

In summary, we commend the leadership of Senator Bingaman and other cosponsors for having the foresight to introduce this legislation. We believe that S. 2146 carefully balances the goal of expanding the generation of a diversity of domestically available clean energy sources in a way that meets our long-term economic goals and reduces greenhouse gas emissions and other pollutants. We believe that legislation of this nature can and should be implemented on a federal level, which would provide multiple benefits nationwide and support clean energy initiatives already underway in more than half of the states.

Again, thank you for the opportunity to testify before you today on this important legislation. I look forward to answering any questions.

¹¹ While a full lifecycle analysis is preferable, the carbon intensity calculation should be calculated from the gross emissions necessary for generating electricity, rather than the net emissions after deducting any electricity consumed for plant operations.