

STATEMENT OF THE HONORABLE JUDD GREGG
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THE ENVIRONMENTAL BENEFITS OF NUCLEAR POWER PLANTS IN THE UNITED STATES

BEFORE THE
SUBCOMMITTEE ON ENERGY AND WATER DEVELOPMENT
COMMITTEE ON APPROPRIATIONS
UNITED STATES SENATE
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Good afternoon, Chairman Alexander, Ranking Member Feinstein and Members of the Subcommittee. Thank you for the opportunity to appear before you as the Chairman of Nuclear Matters to talk about the role nuclear energy will play in our clean energy future.

Nuclear Matters is a coalition of organizations that recognizes the value of America's nuclear energy plants, educates the public on the clear benefits of nuclear energy, and explores possible policy solutions to preserve this essential part of the nation's energy infrastructure.

Our nation's nuclear power plants are vital national assets that provide reliable, carbon-free electricity to tens of millions of households and businesses around the country.

Despite their value, a combination of factors – including low natural gas prices and market rules that fail to recognize this value and subsidies that depress electricity prices – have caused otherwise exemplary performing nuclear plants to close and put the future of others in jeopardy.

The implications of these closures – both today and in the future – will have staggering impacts on the country's economy and its goals to decarbonize the electricity sector.

With Watts Bar II coming online in Tennessee, the United States has nearly 100 nuclear power plants, which generate 20 percent of our electricity and 62 percent of the nation's carbon-free electricity. Nuclear plants are the nation's most reliable source of electricity, operating nonstop for 18 to 24 months before they have to refuel.

Nuclear energy has a distinct set of attributes, generating vast amounts of electricity, emission-free, around the clock. No other electricity source can match that. In a carbon-constrained world, with an economy and a way of life that depend on reliable electricity, we cannot afford to take nuclear energy for granted.

For most parts of the country, meeting state and national carbon reduction goals, including the Environmental Protection Agency's Clean Power Plan, will be compromised without existing nuclear power plants. Bear in mind that the carbon-reduction targets for the Clean Power Plan reflect an energy supply that includes a large contribution of electricity from carbon-free nuclear power plants. When nuclear plants shut down, most of the baseload generation that fills the gap usually comes from fossil-fueled electricity sources, with a resultant rise in carbon emissions. This was a measurable result in the New England region after the Vermont Yankee nuclear plant closed in 2014.

Renewables like wind and solar represent a growing share of our electricity supply, and it is vital that we continue to develop them. However, these sources are still a small fraction of our total generation and renewables are not equally viable in all parts of the country. States need the flexibility to keep existing nuclear plants online.

In 2015, U.S. nuclear power plants avoided 564 million metric tons of carbon dioxide. Without the 99 nuclear power plants that operate in 30 states, carbon emissions from the U.S. electric sector would be approximately 25 percent higher. After Vermont Yankee closed carbon emissions in New England increased by almost 1.5 million tons. That's a 5 percent increase in emissions at a time when we desperately need to be going in the other direction.

In contrast, the Clean Energy Standard (CES) that New York recently approved assigns a value to nuclear energy facilities based on their clean electricity output. The new policy could keep at-risk nuclear power plants operating, help the state meet its emission reduction goals and keep electricity rates predictable. Already, the prospect of beneficial changes resulting from the CES is helping to facilitate the sale of one nuclear plant that was under the threat of closure. I hope that policymakers from around the country are paying attention to New York's example.

The clean-air benefits of nuclear energy ought to be obvious. Their reliability ensures that we can maintain safe temperatures in our homes in the worst heat waves or the coldest winters. Their fuel doesn't freeze. It doesn't have to be delivered "just in time" as it is used. They don't stop generating electricity when the sun doesn't shine or the wind doesn't blow.

Nuclear energy also provides substantial economic benefits. At the national level, they are significant. Each year, the average nuclear plant generates approximately \$470 million in economic output or value. This includes more than \$40 million in total labor income. These figures include both direct output and secondary effects. The direct output reflects the plant's annual electricity sales—approximately \$453 million.

At the local level, nuclear plants are often the economic anchors of their community employing 500-700 workers per plant. Shutting down safe, reliable nuclear plants because the markets haven't found a way to compensate their value unfortunately means that hundreds of people lose good-paying jobs, while local businesses lose customers. The closure of Vermont Yankee is a loss of 600 highly skilled jobs.

The average nuclear plant pays about \$16 million in state and local taxes annually. These tax dollars benefit schools, roads, and other state and local infrastructure. The average nuclear plant also pays federal taxes of \$67 million annually.

The U.S. Department of Energy projects that demand for electricity in the United States will rise by 22 percent by 2040. That means our nation will need new sources to provide electricity for our homes and continued economic growth.

As Congress considers its policies toward nuclear energy we encourage this committee and your colleagues to consider policies that recognize the benefits that nuclear energy provides and support regulations that streamline the regulatory process of permitting and license renewal, while still maintaining rigorous oversight.

On behalf of Nuclear Matters, I want to thank this committee for giving consideration to these important issues facing the industry.

We look forward to supporting Congress in its efforts to maintain nuclear as a valuable energy source for hard working Americans well into the future.