

Opinion

Jump-starting nuclear energy

President Obama's commitment for federal loans for two advanced plants in Georgia is an important step for clean energy and a revitalized economy.

By Patrick Moore

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President Obama's announcement that the federal government would guarantee loans for two advanced-design nuclear plants in Georgia was good news.

The commitment jump-starts the U.S. nuclear energy industry at a time when we have begun to understand that nuclear energy has a substantial role to play in combating climate change and supplying power. More important for the near term, the administration is putting nuclear energy at the center of its push to revitalize the economy.

In his State of the Union address, Obama called for "a new generation of safe, clean nuclear power plants" to create more "clean-energy jobs." He has called for a tripling of federal loan guarantees for reactors. And in announcing the loan guarantee for the Georgia plants, the president urged skeptical Americans to revisit their views on nuclear energy and consider the importance of this proven-safe technology to enhance energy security and climate protection.

"On an issue that affects our economy, our security and the future of the planet, we can't keep on being mired in the same old stale debates between the left and the right, between environmentalists and entrepreneurs," Obama said.

That statement struck a personal chord with me. When I helped found Greenpeace in the 1970s, I was convinced that the risks from harnessing nuclear energy outweighed the benefits. More than 30 years later, Greenpeace still embraces that view, but my views have changed, in part because many of the risks that concerned me have been addressed.

Similarly, the editorial boards of the New York Times and the Washington Post agreed with the president that nuclear energy should be part of America's energy portfolio as the country moves toward a less carbon-intensive energy base.

This timely political and public turnabout is rooted in a decades-long record of safety.

Currently, nuclear power plants supply about one-fifth of the nation's energy. And no member of the public has ever been injured by a nuclear power plant in the United States, nor has any nuclear worker died of a radiation-related incident.

Thanks to similarly strong security requirements guarding this critical U.S. infrastructure, nuclear power plants are well protected against potential security threats.

The twin challenges of climate change and rising electricity demand have pressed the United States and many other countries to seek out large-scale, low-carbon electricity sources. Nuclear energy is a central part of this global push because it has few equals when it comes to producing virtually emissions-free electricity at scale. Nuclear reactors produce more than 70% of the carbon-free electricity in the country. California would have to remove more than half a million passenger cars from its roads to eliminate the amount of carbon dioxide prevented by the state's four nuclear reactors.

As attractive as these environmental gains are, the economic gains for many states and regions are even more important. The two reactors in Georgia will create an estimated 3,500 jobs during construction and 800 permanent jobs when the reactors are up and running.

As many as 21,000 permanent jobs would be created if all of the U.S. nuclear reactors now in the planning stages are built, according to a report by the Clean and Safe Energy (CASEnergy) Coalition, a national alliance that I chair with former Environmental Protection Agency Administrator Christine Todd Whitman. CASEnergy is funded by the nuclear industry.

Although some critics have questioned the costs of building nuclear energy facilities, it's important to keep the cost issue in perspective. To match the power produced by one reactor at a cost of \$6 billion to \$8 billion, you would need a wind farm spanning 200,000 acres and as much as \$12 billion in investment capital, plus natural gas-fired plants to back up wind turbines that are idle the majority of the time.

Encouraged by nuclear energy's environmental and economic benefits, more and more Americans favor nuclear energy. In a Congress that is growing more partisan as the midterm election nears, nuclear energy is a uniting factor among Democrats, Republicans and independents. That is why climate-change legislation crafted by Sens. John Kerry (D-Mass.), Joe Lieberman (I-Conn.) and Lindsey Graham (R-S.C.) has a significant role for nuclear power.

In California, where a state moratorium on new reactors has been in place since 1976, a majority of residents responding to the most recent California Field Poll on nuclear energy approved of building new reactors. Likewise, a majority of respondents to an ABC News/Washington Post national poll last August supported the construction of more nuclear power plants.

This emerging consensus will be crucial to ensuring that nuclear energy continues to play a vital role in meeting U.S. energy and environmental goals. As Obama said in announcing the first federal loan guarantee for nuclear energy projects, "This is just the beginning."

The president's proposal to triple loan guarantees for the industry would help fund an estimated seven to 10 new reactors -- an important start. The fact is that many more will be needed just to maintain nuclear energy's current 20% share of U.S. electricity production. The Electric Power Research Institute recently concluded that at least 45 new reactors will be needed as part of a portfolio of low-carbon technologies to achieve Congress' desired 42% cut in greenhouse gas emissions by 2030.

Widespread engagement will also help ensure that a diversity of alternatives is considered when it comes to identifying long-term solutions for used nuclear fuel.

Earlier this year, Energy Secretary Steven Chu ramped-up this effort by forming a blue-ribbon commission of scientists and other experts to evaluate policy options, including research into nuclear fuel recycling. Up to 95% of the energy content remains in uranium fuel after one use in a reactor.

Countries such as France, Japan and Britain already have made great strides in extracting unused energy from used nuclear fuel, at the same time reducing the amount and longevity of waste byproducts. By employing advanced recycling techniques, advanced fuel fabrication and new reactor designs, we could turn what is now considered waste into one of our most valuable future energy resources.

Meanwhile, low- and high-level radioactive byproducts are safely and securely stored at either federally licensed facilities or the 64 reactor sites across the country.

The Obama administration's new political mandate to make nuclear energy a key element of the country's energy and environmental policy is a welcome development, but not a surprising one. The president supported nuclear energy when campaigning for the White House. Today, pressing concerns about the economy and the environment are driving a more sensible look at nuclear power, given its ability to create tens of thousands of high-paying jobs and produce continuous carbon-free power. By jump-starting the industry's next wave of nuclear energy production, the president has put the country that much closer to realizing a sustainable and clean energy future.

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