

April 29, 2019

Honorable Lisa Murkowski, Chairman
Honorable Joe Manchin, Ranking Member
Committee on Energy and Natural Resources
United States Senate
Washington, D.C. 20510

Re: S. 903, Nuclear Energy Leadership Act

Dear Senators Murkowski and Manchin:

Though it currently supplies about 20 percent of U.S. electricity, nuclear power is headed for permanent decline. American engineers and designers have some great ideas but not enough resources and capital to figure out ways for the nuclear industry to better compete in the 21st Century. Currently, the industry is overmatched by a combination of cheaper fuels like natural gas; by wind and solar, which remain subsidized by the federal government and state governments; and by foreign companies that operate under less commercial pressure and act as foreign policy arms of their respective governments.

This is why the R Street Institute supports, with some qualification, the Nuclear Energy Leadership Act (NELA) currently scheduled for a hearing before the Senate Energy and Natural Resources Committee on Tuesday, April 30, 2019. Building on earlier laws that streamline federal regulation for advanced (Generation IV) nuclear reactors, NELA takes policy a step further by ordering the Department of Energy to develop a 10-year strategic plan to support advanced nuclear research and development goals. The bill also instructs the Energy Department to build a fast-neutron research laboratory by 2025 to test new reactor technology and advanced nuclear fuels.

Currently, the only places capable of fast-neutron testing are located in Russia and China, two competing nuclear powers that force American nuclear scientists to wait in line for experiments and have the potential to cancel visas and block or steal research at any time.

A third element of NELA targets mechanisms that benefit the marketplace for nuclear power, like extending power purchasing authority for the federal government from 10 to 40 years. These long-term agreements act as collateral for startup companies to apply for financing from banks or private investment funds.

Unfortunately, the legislation as currently written does not limit these extended power agreements (PPAs) to “advanced nuclear reactor” technology. Instead, that language can be interpreted to include current nuclear reactor technology (Generation II-III), or perhaps even non-nuclear fuels. Indeed, language in the bill would require at least one commercial nuclear reactor receiving a license from the Nuclear Regulatory Commission after January 2019 to enter into a PPA.

This language is counter to the initial impulse and motivation behind the bill, which is to give private capital new opportunities to invest in a better generation of nuclear technology that is cheaper, safer and less wasteful than that of existing Generation II reactors. Because Generation IV reactor technology is many years from commercialization, this language could be used to subsidize current nuclear reactor technology that does not deserve additional taxpayer support.

These caveats notwithstanding, the overall direction of the bill is a positive one, since it is difficult to conceive of a low-carbon economy that would reverse global emissions growth by midcentury without major growth in nuclear power.

Reasonable people no longer argue about whether climate change exists, but rather over what remedies are needed and on what scale. It is a great sign for America's future that 17 Senators from both parties see a future for nuclear power. Let's all root for this kind of bipartisanship so that Congress can reinvigorate nuclear technology aimed at solving one of the most difficult challenges facing the United States and the world.

Thank you for your time and consideration. I would be happy to answer any questions the committee or its staff may have.

Sincerely,

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