

June 6, 2023

The Honorable Jeff Duncan
Chairman
Subcommittee Energy, Climate and
Grid Security
Committee on Energy and Commerce
United States House of Representatives
Washington, DC 20515

The Honorable Diane DeGette
Ranking Member
Subcommittee Energy, Climate and
Grid Security
Committee on Energy and Commerce
United States House of Representatives
Washington, DC 20515

Chairman Duncan and Ranking Member DeGette,

Thank you for the opportunity to represent Duke Energy and the electric utility industry at the Subcommittee on Energy, Climate and Grid Security on Tuesday, April 18, 2023 during the hearing entitled "American Nuclear Energy Expansion; Powering a Clean and Secure Future."

Please find my responses to your questions for the record attached, which have also been mailed to Kaitlyn Peterson, Legislative Clerk, Committee on Energy and Commerce. I hope the answers to your questions furthers your ability to address needed changes to the nuclear policy space and enables the type of nuclear renaissance that our country is capable of. Should you need any further assistance please do not hesitate to reach out to me directly; or if your staff prefers, please contact Tom Craig, Vice President Federal Government Affairs, in our Washington, D.C. office.

Thank you again for the opportunity to testify and for all you do to support our customers and the millions of people who work hard every day to keep the lights on.

Sincerely,



Regis Repko
Senior Vice President, Generation and Transmission Strategy
Duke Energy

Responses to Additional Questions for the Record

- 1. Your testimony discusses the need to secure the nuclear fuel supply chain to maintain fuel availability to existing nuclear fleets. Russia is the largest supplier of nuclear fuel worldwide and has been supplying more than 20 percent of our low-enriched uranium (LEU) for our current fleet. The Department of Energy (DOE) has proposed a plan to purchase LEU for existing reactors and then resell it to utilities. Your testimony suggests the need for a public-private partnership between the industry and DOE to increase the conversion and enrichment capacity. Please outline in detail what makes this approach more effective than the DOE serving as a broker of LEU, as this Administration has proposed.*

Answer:

While I believe the Department of Energy (DOE) plan for generating demand for uranium is well intentioned, it creates what we believe are unintended challenges in the marketplace. The DOE's procurement of LEU fuel can potentially create a dynamic where utilities are bidding against DOE for a limited supply of fuel, which will drive up cost and increase scarcity of an already challenged fuel supply. Additionally, it can put the DOE in the role of prioritizing who gets fuel and at what price. These are things that should be left to the market, as the proposed DOE model creates an opportunity for bad actors, who may not support nuclear energy, to attempt to manipulate the market and uranium prices.

What our industry urgently needs is to be able to reliably source uranium fuel at affordable prices. To do that the United States needs increased domestic production which includes both additional enrichment capabilities and additional conversion capabilities. Russia subsidizes its uranium fuel production capabilities and as a result is a low-cost provider. If the U.S. is going to compete in the global marketplace and believes that is important for fuel security and to support international allies, then it needs to consider funding to accelerate domestic production. Simply creating demand side pressure is not constructive in an already constrained market.

2. *Last Congress I introduced a bill the Modernized Nuclear Reactor Environmental Reviews Act. The bill directs the NRC to evaluate the current environmental review process for reactors and identify areas where there are reasonable options for less burdensome assessments under the NEPA process. I want to emphasize the bill does not touch the safety review process. According to data, the cost of the environmental review process has tripled over the last 10 years, and completion of the process averages about four years, creating a significant barrier to getting carbon free nuclear power online.*
- a. *How do regulatory costs, which are increased by environmental reviews, hinder the licensing and deployment of advanced nuclear reactors? How does it hurt the existing fleet?*

Answer:

It is important for the industry that the Nuclear Regulatory Commission (NRC) maintains its role as an independent and credible regulator of nuclear safety, security, and the environment. As the same time, it is reasonable to expect that the NRC maintains a stable regulatory environment with predictable processes and decision-making. The principals of good government with regards to openness, transparency, innovation, and financial stewardship apply to NRC no differently than other agencies in government.

The Modernize Nuclear Reactor Environmental Reviews Act is a constructive piece of legislation and Duke Energy is supportive of it. The NRC is a fee recovery agency and, therefore, licensing fees are inherently expensive. In addition, licensing fees are incurred at the beginning of the project and this cost is financed with interest accrued during the licensing and construction period. For example, the permitting process for an Early Site Permitting (ESP) which includes the NEPA review for site suitability, is costly and can be as much as \$75 million. This is a relatively small amount of money compared to the billions that will be spent to develop and build new reactors. However, given the timeline from start of ESP to bringing the plant on-line, which can be as long as 15 years for a new reactor design to get through the regulatory process, the inability to recover ESP dollars until the plants start operations creates stranded capital that is a challenge for shareholders and increases customer costs. The more the NRC can do to bring down the costs of ESPs, the greater likelihood that more utilities will start applying for them.

The impact of licensing on a project is one of both time and dollars. It is important that the process be predictable. Recently, the NRC changed the process for environmental reviews for subsequent license renewal (SLR) resulting in increased cost and schedule delays for the applications underway. It makes sense that the Modernize Nuclear Reactor Environmental Reviews Act focuses on the environmental reviews as an area that has been less predictable.

With regards to the existing Fleet, digital is an area where the cost to license and the lack of regulatory certainty in outcome has inhibited movement to upgrade the existing Fleet.

For new reactors, the NRC has existing programs and processes in place. These reviews will be first-of-a-kind that will need strong leadership from the NRC as well as oversight from Congress to achieve predictable regulatory outcomes. At Duke Energy we look forward to working with the NRC to help achieve those outcomes.