

**Statement of Fred Upton**  
**Subcommittee on Energy**  
**“Building a 100 Percent Clean Economy:**  
**Advanced Nuclear Technology’s Role in a Decarbonized Future”**  
**March 3, 2020**

*As Prepared for Delivery*

As Congress considers what policies to pursue to address climate change risks, nuclear technology should be at the center of the discussion. And so let me thank you, Chairman Rush; this hearing on advanced nuclear technology is important and timely.

This morning we will examine the state of the advanced technologies, the prospects for these technologies in energy and industrial applications; what is necessary to license and build new nuclear power generators; what is necessary to deploy these technologies in the United States and in foreign markets.

Any examination of future nuclear policies has to recognize the current role of nuclear energy in our power sector and economy.

The plain fact is, the nation’s existing light-water fleet is the dominant form of emissions free power in many regions of the United States, far surpassing what is provided by wind and solar.

The industry supports half a million high quality jobs, provides the tax revenue to support communities around the country, and enables the hard-to-replace intellectual and technical capabilities that help ensure U.S. leadership in nuclear.

Today, Michigan benefits from four nuclear power reactors, three of which—the two at D.C. Cook and the one at Palisades—are in my district. The energy from these reactors provides about a quarter of the

state's electricity and about 80% of the state's clean energy--emitting no greenhouse gases or criteria air pollutants.

Nuclear technology provides more than half the emissions free electricity in the United States. And nuclear units around the nation run more than 92% of the time, far surpassing the capacity factors of any other form of generation to provide reliable, secure baseload power that helps to ensure affordable electricity for industry, businesses and consumers.

Yet in deregulated markets, pricing requirements and other policies have been undermining the economics of many nuclear units. Palisades is scheduled to shut down in 2022. Seven more units in Iowa, New York, Pennsylvania, and California will be shutting down from this year through 2025—taking 60 billion kilowatt hours of clean generation off the grid. That's almost the entire amount of power from utility scale solar in this country.

Replacing that baseload power with non-hydro renewables will be an expensive challenge, especially in states that are seeking to decarbonize their systems.

The loss of a significant portion of the existing fleet will also send a ripple effect throughout the nuclear supply chain.

Fuel cycle facilities, that underpin both commercial and national security needs, would lose critical capacity. The next generation of nuclear engineering and nuclear scientists could dry up as educational institutions lose support for programs.

The bottom line is: the prospects for expanding advanced technologies, requires maintaining a robust existing fleet, and the intellectual, technological, and regulatory infrastructure that supports that fleet.

Advanced nuclear technology and all its potential benefits for decarbonization will be built upon that infrastructure.

The good news is that DOE, NRC, state legislatures, and Congress—including this Committee—have been taking steps in recent years to address the challenges confronting the industry.

I look forward to hearing about the reforms at the NRC, and how the Commission is doing with its advanced reactor applications and what is necessary to ensure the applications for site permits and operating permits can move forward expeditiously.

We've moved legislation through the House for the second Congress in a row to help develop a market for new, advanced fuels. What more can be done to provide for this new fuel infrastructure?

Finally, we should not ignore the backend of the fuel cycle. Even advanced reactors will have to confront spent fuel disposal; the lack of funding for moving forward with the license review of the Yucca Mountain project would seem only to add to uncertainty, making it challenging for financing and siting new projects.

We should focus on all aspects of what is needed to provide the regulatory certainty and public support for these promising new technologies.

I look forward to a thoughtful discussion.

####