Opening Statement of Energy Subcommittee RM Randy Weber: Energy Subcommittee Hearing on Energy-Water Nexus

Mar 7, 2019

Opening Statement

Today, we will hear from a panel of experts on the challenges in the U.S. energy-water nexus and discuss the Department of Energy (DOE)'s role in enabling fundamental research and development in support of these critical resources.

A sustainable supply of both energy and water is essential to the maintenance of U.S. economic health, environmental stability, and national security. Water is needed to produce energy, and energy is required to extract, treat, and transport water. This fundamental and tightly intertwined relationship is often referred to as the energy-water nexus.

We see the energy-water nexus at work in the production of fossil fuels and biofuels, and in the functioning of thermoelectric power plants across the country.

Historically, energy and water systems in the U.S. have been planned and managed separately. Today, it is clear that no matter what the future cross-section of the U.S. energy market looks like – we will need to develop an integrated approach to these two systems.

A number of federal agencies have supported research and development efforts related to the energy-water nexus, including the Environmental Protection Agency (EPA), the Department of the Interior (DOI), and the Department of Energy (DOE).

With its strong expertise in energy technologies and world-leading fundamental science capabilities, DOE is uniquely suited to lead the national energy-water nexus conversation.

The Department enables high level use-inspired basic research that supports our understanding of today's evolving energy-water nexus throughout its national laboratory system.

At the National Renewable Energy Laboratory (N-REL), DOE funds research into a wide portfolio of advanced technology solutions to today's energy-water

nexus concerns, including desalination using renewable energy technologies and the reduction of water needs for solar technologies.

At the National Energy Technology Laboratory (NETL), DOE funds research in advanced cooling and water treatment technologies, non-traditional water use, and modeling tools to evaluate the impact of fossil energy development on both surface and sub-surface water resources.

And at Sandia National Laboratories, researchers are focused on creating new water supplies using advanced technologies. Sandia also supports research that develops and provides decision-making tools to U.S. institutions that control the supply and demand of both water and energy.

Recently, the Trump Administration has taken a number of steps to prioritize research in the energy-water nexus.

In October 2018, Secretary Rick Perry announced the launch of a DOE-led Water Security Grand Challenge, which will incentivize the development of new technologies to address critical U.S. water security challenges.

Then in December, DOE announced $100 million in funding for an Energy-Water Desalination Hub focused on early-stage research and development. This hub will explore non-traditional water sources and provide desalination technologies that are both cost competitive and energy efficient.

I want to thank the Chairman for holding this hearing today and the witnesses for providing their testimony, and I'm looking forward to learning more about research in this important area today.