

# **FACT SHEET: Obama Administration Announces Actions to Ensure that Nuclear Energy Remains a Vibrant Component of the United States' Clean Energy Strategy**

As detailed in the Climate Action Plan, President Obama is committed to using every appropriate tool to combat climate change. Nuclear power, which in 2014 generated about 60 percent of carbon-free electricity in the United States, continues to play a major role in efforts to reduce carbon emission from the power sector. As America leads the global transition to a low-carbon economy, the continued development of new and advanced nuclear technologies along with support for currently operating nuclear power plants is an important component of our clean energy strategy. Investing in the safe and secure development of nuclear power also helps advance other vital policy objectives in the national interest, such as maintaining economic competitiveness and job creation, as well as enhancing nuclear nonproliferation efforts, nuclear safety and security, and energy security.

The President's FY 2016 Budget includes more than \$900 million for the Department of Energy (DOE) to support the U.S. civilian nuclear energy sector by leading federal research, development, and demonstration efforts in nuclear energy technologies, ranging from power generation, safety, hybrid energy systems, and security technologies, among other things. DOE also supports the deployment of these technologies with \$12.5 billion in remaining loan guarantee authority for advanced nuclear projects through Title 17. DOE's investments in nuclear energy help secure the three strategic objectives that are foundational to our nation's energy system; energy security, economic competitiveness, and environmental responsibility.

Today, the White House is announcing and highlighting the following actions to sustain and advance nuclear energy, including:

- **Launching the Gateway for Accelerated Innovation in Nuclear:** DOE is establishing the Gateway for Accelerated Innovation in Nuclear (GAIN) to provide the nuclear energy community with access to the technical, regulatory, and financial support necessary to move new or advanced nuclear reactor designs toward commercialization while ensuring the continued safe, reliable, and economic operation of the existing nuclear fleet. GAIN will provide the nuclear community with a single point of access to the broad range of capabilities – people, facilities, materials, and data – across the DOE complex and its National Lab capabilities. Focused research opportunities and dedicated industry engagement will also be important components of GAIN, ensuring that DOE-sponsored activities are impactful to companies working to realize the full potential of nuclear energy. GAIN will feature:
  - **Access to Capabilities:** Through the Clean Energy Investment Center in DOE's Office Technology Transitions (OTT), GAIN will provide a [single point of contact](#) for users interested in a wide range of nuclear energy related capabilities and expertise. As an initiating step, Idaho National Lab will serve as the GAIN integrator for Office of Nuclear Energy capabilities.
  - **Nuclear Energy Infrastructure Database:** DOE is also publishing the Nuclear Energy Infrastructure database (NEID), which provides a catalogue of existing nuclear energy related infrastructure that will enhance transparency and support nuclear community engagement through GAIN. NEID currently includes information on 802 research and development instruments in 377 facilities at 84 institutions in the United States and abroad. Nuclear technology developers can access the database to identify resources available to support development and implementation of their technology, as well as contacts, availability, and the process for accessing the capability.
  - **Small Business Vouchers:** To support the strong interest in nuclear energy from a significant number of new companies working to develop advanced nuclear energy technologies DOE plans to make \$2 million available in the form of vouchers to provide assistance to small business applicants (including entrepreneur-led-start-ups) seeking to access the knowledge and capabilities available across the DOE complex. This will enhance the ability of GAIN to serve a broader segment of the nuclear community.

- **Assisting Navigation of the Regulatory Process:** The Nuclear Regulatory Commission (NRC), consistent with its role as an independent safety and security regulator, will provide DOE with accurate, current information on the NRC's regulations and licensing processes. DOE will work through GAIN with prospective applicants for advanced nuclear technology to understand and navigate the regulatory process for licensing new reactor technology.
- **Convening Second Workshop on Advanced Non-Light Water Reactors:** The NRC and DOE will hold the Second Advanced Non-Light Water Reactors Workshops in spring 2016. The successful first workshop was held in September 2015. The purpose of the workshop is to explore options for increased efficiency, from both a technical and regulatory perspective, in the safe development and deployment of innovative reactor technologies. This would include examining both near-term and longer-term opportunities to test, demonstrate, and construct prototype advanced reactors, and evaluate the most appropriate licensing processes.
- **Supplementing Loan Guarantee Solicitation for Nuclear Energy:** Today, DOE is supplementing its existing solicitation that makes up to \$12.5 billion in loan guarantees available to support innovative nuclear energy projects. The solicitation states that eligible projects can include construction of advanced nuclear reactors, small modular reactors, uprates and upgrades at existing facilities, and front-end nuclear facilities. In addition, the new supplement clarifies that project costs for an eligible project that are incurred as part of the NRC licensing process, such as design certification, construction permits, and combined construction and operating licenses (COL), could be eligible costs that may be financed with a loan guaranteed by DOE.
- **Establishing Light Water Reactor (LWR) Research, Development, and Deployment Working Group:** DOE is formally announcing the establishment of LWR Research, Development, and Deployment (RDD) Working Group to examine possible needs for future RDD to support the development of competitive advanced LWRs, as well as maintain the safe, efficient operations of currently operating nuclear power plants. The group will consist of federal national laboratory, and industry participants. Recommendations are expected to DOE by February 2016.

- **Addressing Small Modular Reactor Needs through Consortium for Advanced Simulation of Light Water Reactors:** Today, DOE's Consortium for Advanced Simulation of Light Water Reactors (CASL) is signing an agreement with NuScale to establish new cost-shared modeling and simulation tools under the CASL Energy Innovation Hub at Oak Ridge National Laboratory. This agreement specifies the work that will be done by CASL to install and support the use of its virtual reactor tools on NuScale systems and by NuScale to simulate performance questions using CASL tools. Through this agreement, CASL tools will be expanded to better simulate SMR operation and inform design decisions. These efforts can lead to more efficient reactor designs that improve lifetime operation in a power plant.
- **Investing in SMR Licensing:** DOE began investing up to \$452 million dollars over six years starting in FY 2012 to support first-of-a-kind engineering costs associated with certification and licensing activities for SMRs through the NRC. By utilizing cost-share agreements with private industry through a licensing technical support program, DOE supports the domestic development of these innovative nuclear technologies, thereby strengthening American manufacturing capabilities and the associated nuclear supply chain, improving domestic employment opportunities, and creating important export opportunities for the United States. It is expected that the first SMR design application will be submitted to the NRC in late-2016.
- **Designing a Modernized LWR Control Room:** DOE is partnering with Arizona Public Service's Palo Verde Nuclear Generating Station to design a modernized control room for an operating commercial LWR. Working together through a cost-shared partnership, DOE's LWR Sustainability Program and Palo Verde will consider the best way to replace traditional analog systems with digital systems that optimize control room operations. This work supports the long-term sustainability and efficiency of the currently operating nuclear power plants by assisting nuclear utilities to address reliability and obsolescence issues of legacy analog control rooms.

Original article can be found [HERE](#).