Photo: Sandor Miklos Tozser/IAEA

HEU FROM GHANA WAS RETURNED TO CHINA ON AUGUST 29, following the conversion in July of Ghana's GHARR-1 Miniature Neutron Source Reactor to low-enriched uranium fuel (*NN*, Sept. 2017, p. 27). The project to convert the reactor was a cooperative effort involving the Ghana Atomic Energy Commission, the China Atomic Energy Authority, the National Nuclear Security Administration, and the International Atomic Energy Agency. In the photo above, the TUK/145/C MNSR package containing the high-enriched uranium is loaded onto a trailer at the Shijiazhuang Daguocun International Airport, in Hebei, China.

hurricanes that caused extensive power outages in Texas and Florida (see page 22), and only weeks after the DOE released its much-anticipated grid study, which examined a number of issues related to grid resilience and reliability (*NN*, Sept. 2017, p. 17). Up to $50 million will be awarded to national laboratories to support early-stage research and development of next-generation tools and technologies, with the final amounts being subject to negotiation and congressional appropriations.

"A resilient, reliable, and secure power grid is essential to the nation's security, economy, and the vital services that Americans depend on every day," said Secretary of Energy Rick Perry in a DOE press release. "As round-the-clock efforts continue to help communities recover from the devastation of Hurricanes Harvey and Irma, the need to continue strengthening and improving our electricity delivery system to withstand and recover from disruptions has become even more compelling. By leveraging the world-class innovation of the national laboratories and their partners, this investment will keep us moving forward to create yet more real-world capabilities that the energy sector can put into practice to continue improving the resilience and security of the country's critical energy infrastructure."

Seven Resilient Distribution Systems projects will be awarded up to $32 million over three years through the DOE's Grid Modernization Laboratory Consortium, part of the DOE's Grid Modernization Initiative. Idaho National Laboratory, Sandia National Laboratories, and Pacific Northwest National Laboratory, for instance, will be awarded $6.2 million to work on enhancing "the resilience methods for distribution grids under harsh weather, cyber-threats, and dynamic grid conditions, using multiple networked microgrids, energy storage, and early-stage grid technologies." Included as project partners are Siemens Corporation, Washington State University, Florida State University, New Mexico State University, Microgrid Solutions, the City of Cordova, Cordova Electric Cooperative, the Alaska Center for Energy and Power, and the Alaska Village Electric Cooperative.

In addition, the DOE has earmarked over $20 million for 20 cybersecurity projects focused on six topic areas: partnerships to reduce risk through vulnerability mitigation, identification of energy delivery system (EDS) equipment inadvertently exposed to the public Internet to reduce the cybersecurity risk on the operational technology infrastructure, EDSs that can adapt to survive a cyber-incident, EDSs with verifiable trustworthiness, cybersecure communications for operating resilient grid architectures, and tools and technologies that enhance cybersecurity in the energy sector. In one such project, Argonne National Laboratory is partner-