

Exceptional service in the national interest



The Sandia Investment Story

Near-Term and Long-Term Solutions

BACKGROUND

Sandia National Laboratories is a national security lab with a diverse mission. Sandia's multiprogram requirements span nuclear weapons (NW) and related defense systems; surety; renewable energy and energy security; environmental integrity; national security systems; and industry partnerships. The diversity of Sandia's missions is directly related to the current and emerging national security environment. Sandia needs capital investments to continue meeting these challenges.

ISSUE

Sandia's *FY12–16 Strategic Plan* is the basis for the infrastructure strategy, which will provide mission-enabling infrastructure in support of Objective 1, *Deliver with excellence on our commitments to the unique nuclear weapons mission*, and Objective 2, *Amplify our national security impact*.

Proactive stewardship of the institution's facilities and infrastructure (F&I) is the key to achieving this goal. Over the next decade, Sandia will face the following challenges to stewardship:

- Sandia is expected to lead efforts to maintain United States military systems' superiority through the National Nuclear Security Administration (NNSA) Life Extension Programs (LEP) beginning with the B61 LEP.
- Sandia does not expect capital funding for facilities construction to support F&I revitalization in time to meet mission needs.
- Sandia must fund the Silicon Fabrication Recapitalization, revitalize Tonopah Test Range, and make improvements for safe and reliable operations at the Annular Core Research Reactor facility to deliver on LEP activities. This will consume any additional resources within the weapons funding for the foreseeable future; therefore, an internally developed solution is needed to benefit the mission. Sandia also recognizes similar challenges for the other national security mission programs that comprise ~55% of Sandia's work.

NEAR-TERM SOLUTION

Sandia's *Five-Year F&I Plan* addresses short-term, required investments. The plan includes efforts to increase productivity, reduce long-term operational costs, reduce energy intensity, and demonstrate a fiscally responsible approach to assure adequate cost control for customers. Sandia established the following objectives to guide its planning and prioritization:

- Remove or remodel substandard space;
- Improve productivity of mission through colocation and improvements to space quality;
- Improve the "Facility Condition Index" by reducing deferred maintenance;
- Increase space utilization (e.g., office, laboratories and storage); and
- Explore the feasibility of nontraditional funding strategies, including third-party financing.

The plan emphasizes three investment strategies:

1. Renovate and reuse;
2. Remove unneeded facilities from service; and
3. Use capital investments in major facility construction and building improvements.

Using internally generated funds from the mission work, Sandia intends to construct several small institutional general plant projects (IGPPs), consistent with the first two strategies, and to maintain capabilities to support the NW LEP efforts, other national security programs, and mission support work through the end of the decade. Due to a lack of funding, the IGPPs do not address the third strategy.

Implementation of the IGPP strategy allows Sandia to remove a 60-year-old facility from service (prior to 2016) that supports multimission delivery and mission support functions at SNL/NM. This building, which currently requires \$25M in deferred maintenance, has been targeted for decontamination and demolition by the NNSA. Estimates for full renovation of the facility have been greater than \$110M. Sandia will reuse existing space and create new IGPP space that will

accommodate 310 employees and ~70K sq. ft. of laboratory, high-bay, and storage space. While more than 200 employees will be relocated in the IGPP turnaround space, many will ultimately be colocated in the NNSA Weapons Engineering Facility (WEF) upon completion in 2021–22.

LONG-TERM SOLUTION

Sandia's leadership supports its governance responsibilities with moving forward in meeting the F&I objectives. However, the plan has the following limitations:

- Sandia believes the current level of IGPP funding (\$10M) does not allow for the most efficient use of institutional resources. If Sandia could spend \$20–30M over a multiyear period for one building, the economies of scale would provide less costly infrastructure than separate \$10M buildings.
- Sandia will continue to struggle with stewarding its F&I, even after successful implementation of the IGPP strategy. Recapitalization is critical as Sandia faces similar challenges in sustaining other key NW facilities. Continued advocacy by NNSA for the WEF capital construction effort is especially important. Sandia has requested that NNSA NA-10 revisit its construction schedule and move the design and construction plan to support future LEP efforts, following the B61 LEP.
- Sandia will face challenges to meet its commitments for other national security mission work that also benefit the NW program. DOE advocacy is imperative in seeking multiagency funding for recapitalization and/or new capitalization initiatives. By teaming with other federal agencies on construction, NNSA could provide the F&I needed to further advance sensing technologies and cyber security.

To build a sustainable future, Sandia must work closely with NNSA on a capital investment and reinvestment strategy to support both the NW mission and broader national security mission.