

United States Senate

WASHINGTON, DC 20510-3105

July 19, 2021

The Honorable Charles Schumer
Senate Majority Leader
S-224, the Capitol
U.S. Senate
Washington, D.C.

The Honorable Mitch McConnell
Senate Minority Leader
S-230, the Capitol
United States Senate
Washington, DC 20510

Majority Leader Schumer and Minority Leader McConnell,

We appreciate your efforts to advance our nation's competitiveness, address pressing infrastructure needs, and jumpstart the economy and put people back to work in the aftermath of the current COVID-19 pandemic. As we turn to infrastructure we respectfully request that you include investments in the nation's scientific infrastructure, including the Department of Energy (DOE) National Laboratories. Funding for maintenance, repairs, and the modernization of National Lab infrastructure will ensure our nation's continued scientific and economic competitiveness; create thousands of high-quality, well-paying construction jobs; and attract the best and brightest scientists to national service. As part of DOE National Laboratory modernization efforts, we also urge you to fund the construction and upgrades of DOE-approved, shovel-ready world-class scientific, advanced energy, and national security facilities at our National Labs.

The DOE maintains a network of 17 National Laboratories that advance the science, technology, energy, environmental, and national security missions of the Department. Although the labs are managed by the DOE, they help find solutions to a broad set of challenges of national importance, ranging from the use of artificial intelligence to improve health services and outcomes for our nation's veterans to advancing quantum information science that will lead to next-generation communications networks and computers.

Located at National Laboratories and universities across the country are world-class research facilities, including particle accelerators, experimental reactors, isotope reactor, X-ray synchrotron and free-electron laser light sources, fusion and pulsed power facilities, multi-axis X-ray machines that create 3D images of high density explosions, leadership-class supercomputers, and other high precision instrumentation. Modern infrastructure is also needed to support advanced nuclear demonstration projects; the modernization of the electric grid, including energy storage; and nonproliferation, counter proliferation, and counter terrorism missions.

More than 40,000 researchers from academia, industry, and other federal agencies use these unique, world-leading facilities to support their scientific pursuits. During the COVID-19 crisis, our National Labs have provided their expertise and facilities to help overcome the COVID-19 challenge, including the use of DOE's supercomputers to search for treatments and vaccine therapies, X-ray light sources to understand the virus and identify potential vulnerabilities,

unique characterization methods to develop more effective N95 mask filter media, and advanced manufacturing expertise to address the shortage of personal protective equipment (PPE) and ventilators.

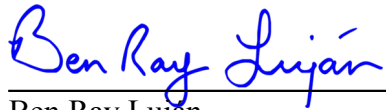
Modern, reliable infrastructure at the National Laboratories is critical to support world-class science that provides a strong foundation for the nation's economic competitiveness, prosperity, and security. General-purpose infrastructure, such as office space, laboratory space, storage space, and utilities, forms the backbone of the National Laboratory enterprise and enables DOE's mission. Unfortunately, our National Lab network suffers from a maintenance backlog from decades of underfunding that puts the labs' successful and efficient execution of this mission at risk. The average age of DOE facilities is currently 37 years and the average age of the systems that support these facilities (e.g., water, sewage, electrical, roads) is 40 years.

Across the DOE National Laboratory complex, there are shovel-ready infrastructure projects – from utility upgrades to new state-of-the-art research facilities – that could be dramatically accelerated through investment aimed at stimulating the economy and restoring critical infrastructure. As an example, utility systems across several laboratories are failing and require frequent, often costly, repairs. Many utilities and support buildings are rated substandard or inadequate. When necessary maintenance on a facility or utility system that is scheduled or should be performed is postponed, it is referred to as deferred maintenance. DOE's deferred maintenance backlog has continued to grow. A dedicated, focused investment would go a long way toward recapitalizing and modernizing National Lab infrastructure and would immediately support thousands of high-quality, well-paying jobs. Maintaining, repairing, upgrading, and replacing general-purpose infrastructure would foster safe, efficient, reliable, and environmentally responsible operations; boost morale of the scientific and engineering workforce at the National Laboratories; and demonstrate our nation's continued commitment to maintaining the world's best scientific infrastructure.

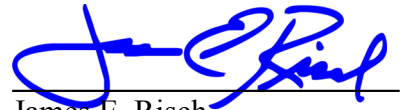
Equally important, the U.S. faces increasing competition from our counterparts in Europe and Asia, as they race to build their own state-of-the-art facilities to attract the best minds and lead the world in science and technology. This does not just pose an economic threat to the United States, but also a national security threat. An infrastructure investment would accelerate the construction of world-class facilities and scientific instruments to stay ahead of this competition and make sure the U.S. remains the most secure and most attractive country in the world for scientific discovery and innovation.

Thank you for considering these important investments. We look forward to working with you to invest in our nation's competitiveness and put people back to work by addressing these critical infrastructure needs.

Sincerely,



Ben Ray Lujan
United States Senator



James E. Risch
United States Senator



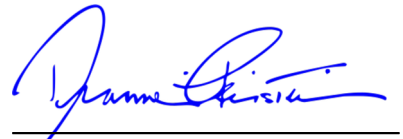
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United States Senator



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Dianne Feinstein
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Maria Cantwell
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Alex Padilla
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Tim Kaine
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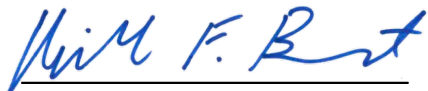
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Cory A. Booker
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