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Nuclear Science and Engineering
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December 23, 2015

The Honorable Randy Weber
Chairman, Subcommittee on Energy
House Committee on Space, Science and Technology
2319 Rayburn House Office Building
Washington, DC 20515

The Honorable Lamar Smith
Chairman
House Committee on Space, Science and Technology
2321 Rayburn House Office Building
Washington, DC 20515

The Honorable Eddie Bernice Johnson
Ranking Member
House Committee on Space, Science and Technology
2321 Rayburn House Office Building
Washington, DC 20515

The Honorable Alan Grayson
Ranking Member, Subcommittee on Energy
House Committee on Space, Science and Technology
2321 Rayburn House Office Building
Washington, DC 20515

Chairman Weber, Chairman Smith, Ranking Member Johnson, Ranking Member Grayson:

I am writing to you as the Department Head of Nuclear Science & Engineering at MIT to provide my strong support for H.R. 4084 "Nuclear Energy Innovation Capabilities." This legislation will be an important step toward promoting U.S. leadership of advanced nuclear energy and in maintaining U.S. nuclear expertise. In the absence of such new legislation I have concerns for the sustainability of both the present nuclear fleet, which is critical to generating clean baseload electricity today, and for the U.S. to remain a leader in the worldwide competition to advance nuclear technology, which will play an ever-larger role in the global energy market.

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This bill correctly identifies the technical research needs for moving nuclear energy innovation forward:

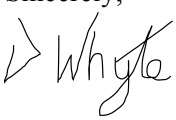
- Access to the research and regulatory infrastructure provided by the large-scale capabilities of our national labs, which provides an invaluable framework at which to test integrated demonstrations of advanced nuclear design and technology,
- Advanced neutron sources for pushing the frontiers of nuclear material science, and,
- Coordinated high-performance computing which has become a powerful and efficient tool for advanced nuclear science and design through simulation.

In addition, allowing the DOE's considerable infrastructure resources to collaborate with business and academia will enable not only the next generation of nuclear science and technology, but most importantly, the next generation of nuclear scientists. Providing avenues such as these to engage and promote this next generation of highly talented and innovative nuclear energy scientists will be necessary for the US to remain competitive in an expanding worldwide effort to deploy nuclear energy sources. In addition maintaining a workforce of nuclear scientists and engineers will be critical to our national security, our electrical generation infrastructure, and for future space exploration.

Nuclear energy development faces a myriad of challenges in realms beyond the purely technical such as economics, financing, and the deployment of new technologies. I believe that overcoming these coupled issues requires a multi-pronged approach that is inclusive of a larger constituency. H.R. 4084 supports an "innovation triad" consistent of national laboratories, the private-sector and academia. I firmly believe that by exploiting the synergies produced by such a triad, we will propel U.S. nuclear energy to into a new era of innovation.

I want to thank you for your leadership and foresight in bringing this important legislation forward.

Sincerely,



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