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On behalf of the Department of Energy's Advanced Scientific Computing Advisory Committee (ASCAC) and other concerned members of the Department of Energy research and development enterprise, we write to express concern regarding the upcoming end of the Exascale Computing Project (ECP). Based on the hard work of a diligent cadre of laboratory and academic staff, ECP is on track to deliver an end-to-end software stack and application suite for Office of Science and NNSA exascale platforms – ORNL Frontier, ANL Aurora, and LLNL El Capitan. Sustaining this infrastructure and evolving it to support new systems and applications will necessarily require ongoing effort, and there are new and emerging challenges ahead.

What is increasingly unclear is whether the key staff will be employed productively at the national laboratories after the end of ECP. There is no publicly announced and communicated plan to fund the people working on the project beyond its end in September 2023. Key talent is already beginning to leave, and those departures will only accelerate as the program termination point becomes closer. At a time when elite research talent is in short supply, and the industry opportunities, both intellectual and financial, are immense, there is great risk that the U.S. government research and national security enterprise, and the U.S., will lose substantial portions of this talent base.

For the past seven years, roughly one thousand researchers have been developing applications, algorithms, and software for exascale systems. ***It is critical that DOE Office of Science, NNSA and the DOE laboratories devise a strategy and stable funding plan to retain ECP personnel and provide them with long-term career opportunities.*** This should include an intellectually exciting set of programs that will both address key DOE needs and engage the passion of the community.

Simply put, the clear and present danger is that this cadre of scientists, engineers, and hardware/software experts, who are well educated and well trained, will find positions elsewhere, and the laboratory talent drain will be significant and irreparable, precisely at a time when global economic competition and associated national security issues are of critical importance.

We understand these challenges are well known and appreciated, and we stand ready to help in any and all ways possible.

Sincerely,



Daniel A. Reed, University of Utah, ASCAC Chair

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