HR 874

American Super Computing Leadership Act

Congress: 114 (2015–2017, Ended)
Chamber: House
Policy Area: Energy
Introduced: Feb 11, 2015
Current Status: Received in the Senate and Read twice and referred to the Committee on Energy and Natural Resources.
Latest Action: Received in the Senate and Read twice and referred to the Committee on Energy and Natural Resources. (May 20, 2015)
Official Text: https://www.congress.gov/bill/114th-congress/house-bill/874

Sponsor

Name: Rep. Hultgren, Randy [R-IL-14]
Party: Republican • **State:** IL • **Chamber:** House

Cosponsors (9 total)

Cosponsor	Party / State	Role	Date Joined
Rep. Fattah, Chaka [D-PA-2]	D · PA		Feb 11, 2015
Rep. Kinzinger, Adam [R-IL-16]	R · IL		Feb 11, 2015
Rep. Lipinski, Daniel [D-IL-3]	D · IL		Feb 11, 2015
Rep. Smith, Lamar [R-TX-21]	R · TX		Feb 11, 2015
Rep. Swalwell, Eric [D-CA-15]	D · CA		Feb 11, 2015
Rep. Bonamici, Suzanne [D-OR-1]	D · OR		Mar 3, 2015
Rep. Lujan, Ben Ray [D-NM-3]	D · NM		Mar 3, 2015
Rep. Esty, Elizabeth H. [D-CT-5]	D · CT		Mar 4, 2015
Rep. Peters, Scott H. [D-CA-52]	D · CA		May 18, 2015

Committee Activity

Committee	Chamber	Activity	Date
Energy and Natural Resources Committee	Senate	Referred To	May 20, 2015
Science, Space, and Technology Committee	House	Reported By	May 19, 2015

Subjects & Policy Tags

Policy Area:

Energy

Related Bills

Bill	Relationship	Last Action
114 HR 1898	Related bill	**Nov 16, 2015:** Referred to the Subcommittee on Higher Education and Workforce Training.
114 HR 1806	Related bill	**May 21, 2015:** Received in the Senate and Read twice and referred to the Committee on Commerce, Science, and Transportation.

Summary (as of May 19, 2015)

(This measure has not been amended since it was introduced. The summary has been expanded because action occurred on the measure.)

American Super Computing Leadership Act

(Sec. 3) Amends the Department of Energy High-End Computing Revitalization Act of 2004 with respect to: (1) exascale computing (computing system performance at or near 10 to the 18th power floating point operations per second), and (2) a high-end computing system with performance substantially exceeding that of systems commonly available for advanced scientific and engineering applications.

Directs the Secretary of Energy (DOE) to: (1) coordinate the development of high-end computing systems across DOE; (2) partner with universities, National Laboratories, and industry to ensure the broadest possible application of the technology developed in the program to other challenges in science, engineering, medicine, and industry; and (3) include among the multiple architectures researched, at DOE discretion, any computer technologies that show promise of substantial reductions in power requirements and substantial gains in parallelism of multicore processors, concurrency, memory and storage, bandwidth, and reliability.

Repeals authority for establishment of at least one High-End Software Development Center.

Directs the Secretary to conduct a coordinated research program to develop exascale computing systems to advance DOE missions. Requires establishment through competitive merit review of two or more DOE National Laboratory-industry-university partnerships to conduct integrated research, development, and engineering of multiple exascale architectures.

Requires the Secretary to conduct mission-related co-design activities in developing such exascale platforms. Defines "co-design" as the joint development of application algorithms, models, and codes with computer technology architectures and operating systems to maximize effective use of high-end computing systems.

Directs the Secretary to develop any advancements in hardware and software technology required to realize fully the potential of an exascale production system in addressing DOE target applications and solving scientific problems involving predictive modeling and simulation and large-scale data analytics and management. Requires DOE also to explore the use of exascale computing technologies to advance a broad range of science and engineering.

Directs the Secretary to submit to Congress an integrated strategy and program management plan.

Requires the Secretary, before initiating construction or installation of an exascale-class computing facility, to transmit to Congress a separate plan detailing: (1) the proposed facility's cost projections and capabilities to significantly accelerate the development of new energy technologies; (2) technical risks and challenges that must be overcome to achieve successful completion and operation of the facility; and (3) an independent assessment of the scientific and technological advances expected from such a facility relative to those expected from a comparable investment in expanded research and applications at terascale-class and petascale-class computing facilities, including an evaluation of where investments should be made in the system software and algorithms to enable these advances.

Actions Timeline

- **May 20, 2015:** Received in the Senate and Read twice and referred to the Committee on Energy and Natural Resources.
- **May 19, 2015:** Reported by the Committee on Science, Space, and Technology. H. Rept. 114-122.
- **May 19, 2015:** Placed on the Union Calendar, Calendar No. 87.
- **May 19, 2015:** Mr. Smith (TX) moved to suspend the rules and pass the bill.
- **May 19, 2015:** Considered under suspension of the rules. (consideration: CR H3361-3363)
- **May 19, 2015:** DEBATE - The House proceeded with forty minutes of debate on H.R. 874.
- **May 19, 2015:** Passed/agreed to in House: On motion to suspend the rules and pass the bill Agreed to by voice vote.(text: CR H3361-3362)
- **May 19, 2015:** On motion to suspend the rules and pass the bill Agreed to by voice vote. (text: CR H3361-3362)
- **May 19, 2015:** Motion to reconsider laid on the table Agreed to without objection.
- **Mar 4, 2015:** Committee Consideration and Mark-up Session Held.
- **Mar 4, 2015:** Ordered to be Reported by Voice Vote.
- **Feb 11, 2015:** Introduced in House
- **Feb 11, 2015:** Referred to the House Committee on Science, Space, and Technology.