HR 6454

Department of Energy High-End Computing Act of 2012

Congress: 112 (2011–2013, Ended)
Chamber: House
Policy Area: Energy
Introduced: Sep 20, 2012
Current Status: Referred to the Subcommittee on Energy and Environment.
Latest Action: Referred to the Subcommittee on Energy and Environment. (Oct 10, 2012)
Official Text: https://www.congress.gov/bill/112th-congress/house-bill/6454

Sponsor

Name: Rep. Biggert, Judy [R-IL-13]
Party: Republican • **State:** IL • **Chamber:** House

Cosponsors (4 total)

Cosponsor	Party / State	Role	Date Joined
Rep. Hultgren, Randy [R-IL-14]	R · IL		Nov 9, 2012
Rep. Welch, Peter [D-VT-At Large]	D · VT		Nov 9, 2012
Rep. Lofgren, Zoe [D-CA-16]	D · CA		Nov 13, 2012
Rep. Lujan, Ben Ray [D-NM-3]	D · NM		Nov 15, 2012

Committee Activity

Committee	Chamber	Activity	Date
Science, Space, and Technology Committee	House	Referred to	Oct 10, 2012

Subjects & Policy Tags

Policy Area:

Energy

Related Bills

Bill	Relationship	Last Action
112 S 3459	Related bill	**Jul 31, 2012:** Read twice and referred to the Committee on Energy and Natural Resources. (text of measure as introduced: CR S5734-5735)

Summary (as of Sep 20, 2012)

Department of Energy High-End Computing Act of 2012 - 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 sytem 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; and (2) include among the multiple architectures researched 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 one or more exascale computing systems to advance DOE missions. Requires establishment through competitive merit review of two or more DOE National Laboratory-industry partnerships to conduct integrated research, development, and engineering of one or more prototype exascale systems.

Requires the Secretary to conduct mission-related co-design activities in developing prototype 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.

Actions Timeline

- **Oct 10, 2012:** Referred to the Subcommittee on Energy and Environment.
- **Sep 20, 2012:** Introduced in House
- **Sep 20, 2012:** Referred to the House Committee on Science, Space, and Technology.