



July 18, 2017

The Honorable Lisa Murkowski
Chairman, Senate Committee on Energy
and Natural Resources
522 Hart Senate Office Building
Washington, DC 20510

The Honorable Maria Cantwell
Ranking Member, Senate Committee on Energy
and Natural Resources
511 Hart Senate Office Building
Washington, DC 20510

Dear Senators Murkowski and Cantwell:

On behalf of the American Association for the Advancement of Science, the world's largest general scientific society, I write to express our support for the goal of promoting energy innovation as expressed in the Energy and Natural Resources Act of 2017.

Recent economic and policy research¹ show that when the federal government invests in research, that investment incentivizes further research investment from the private sector, leading to innovation, jobs, and economic growth. Indeed, over half of our economic growth since World War II has been tied to science and technology-based innovation.

We therefore applaud the funding authorizations in the Act to increase investments in basic research by seven percent per year over the next five years in the Department of Energy's (DOE) Office of Science and increase funding for DOE's Advanced Research Projects Agency – Energy (ARPA-E). The National Academies of Science, Engineering, and Medicine recently found that ARPA-E has been succeeding in its mission to advance early stage high-risk, high-reward energy technologies; now is the time to grow this investment and not retreat from securing our energy future. If realized through appropriations, these investments will deliver new, cleaner energy technologies, jobs in energy and related industries, and strong economic growth.

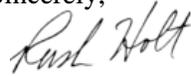
Energy innovation also requires clear policy goals, research funding mechanisms that link research to innovation, and strategic approaches. We therefore applaud the Act's authorizations of DOE's Energy Innovation Hubs and Energy Frontier Research Centers, funding mechanisms with proven track records of catalyzing energy innovation, and the Act's support for the DOE-led Quadrennial Energy Review process to continue this strategic government-wide approach to addressing the nation's energy challenges.

Strong research infrastructure is critical to energy innovation. We therefore applaud the Act's authorization of a focused DOE exascale computing effort that would support partnerships between national laboratories, universities, and industry to make exascale computing a reality. Such a dramatic expansion of computing capabilities will have impacts far beyond the energy sector, opening new avenues for research and knowledge in multiple other domains and ultimately enhancing national security and U.S. economic competitiveness.

We greatly appreciate your effort to update our nation's energy policy in a bipartisan fashion and invest in energy innovation. We at AAAS stand ready to work with the Congress, federal agencies, and institutions of higher education toward our common goals of energy security and affordability and long-term environmental sustainability.

¹ <http://onlinelibrary.wiley.com/doi/10.1111/joes.12074/abstract>

Sincerely,



Rush D. Holt
Chief Executive Officer, AAAS
Executive Publisher, *Science*

CC: The Honorable Mitch McConnell, U.S. Senate Majority Leader
The Honorable Charles Schumer, U.S. Senate Minority Leader