

National Quantum Initiative Act Reauthorization Support Letter

November 30, 2023

On behalf of over 100 member organizations in the Energy Sciences Coalition (ESC), we want to express strong support for the Department of Energy provisions in the National Quantum Initiative Reauthorization Act (H.R. 6213). In particular, the DOE provisions ensure that the DOE Office of Science continues to play a leading role in advancing quantum science and technology for U.S. competitiveness, leverages the unique expertise and world-leading research facilities at DOE national laboratories and DOE-funded research universities, and expands public-private partnerships to accelerate innovation and future adoption.

We thank the Members and professional staff of the House Committee on Science, Space, and Technology for allowing ESC to provide policy and program recommendations for the DOE Office of Science in the Reauthorization bill, submitted in March 2013, and adopting many of its recommendations, including:

- maintaining a foundational research program in quantum information science (QIS);
- expanding the foundational QIS research program to include first use cases and application development;
- renewing and increasing funding authorization for the 5 DOE National Quantum Information Science Research Centers;
- consolidating quantum networking and quantum user program provisions from the *CHIPS and Science Act* to ensure a comprehensive QIS program;
- expanding quantum computing, networking, and communications initiatives, including new partnerships with the National Aeronautics and Space Administration;
- creating a new quantum science and technology instrumentation and infrastructure program, and
- including language to strengthen coordination between DOE STEM and workforce development activities at the DOE quantum centers and national laboratories with the new National Science Foundation Education and Workforce Hub.

Collectively, these provisions will help the U.S. maintain a quantum advantage and start to explore early applications of this nascent technology that could have broad impacts in national security, telecommunications, health, finance, and energy. As the Committee and Congress advance the legislation, we urge the inclusion of provisions that further strengthen STEM education and workforce development for QIS. For example, ESC recommends a dedicated traineeship in QIS to help train the workforce. This type of program would provide classroom training and research opportunities to undergraduates, graduate students, and post docs; connect students to DOE national labs and industry partners for career development; and address unique DOE mission needs.

Thank you for advancing this critically important legislation.

Sincerely,

Leland Cogliani Co-chair 202-289-7475 <u>leland@lewis-burke.com</u> Julie Groeninger Co-chair 202-220-1362 jgroenin@princeton.edu

ESC Membership

American Association of Physicists in Medicine

American Association of Physics Teachers

American Astronomical Society American Chemical Society

American Crystallographic Association

American Geophysical Union American Geosciences Institute American Institute of Physics American Mathematical Society American Nuclear Society American Physical Society

American Society for Engineering Education

American Society of Agronomy Acoustical Society of America (ASA) American Society of Mechanical Engineers American Society for Microbiology American Society of Plant Biologists

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