



May 23, 2022

The Honorable Rosa L. DeLauro  
Chairman  
Committee on Appropriations  
U.S. House of Representatives  
Washington, DC 20515

The Honorable Kay Granger  
Ranking Member  
Committee on Appropriations  
U.S. House of Representatives  
Washington, DC 20515

The Honorable Patrick Leahy  
Chairman  
Committee on Appropriations  
United States Senate  
Washington, DC 20510

The Honorable Richard Shelby  
Vice Chairman  
Committee on Appropriations  
United States Senate  
Washington, DC 20510

Dear Chairwoman DeLauro, Chairman Leahy, Vice Chairman Shelby, and Ranking Member Granger:

Breakthrough Energy applauds your leadership and commitment to advancing clean energy innovation which is vital to creating American jobs, supporting U.S. global competitiveness, enhancing energy security, and reducing U.S. emissions. We especially appreciate the Committees' longstanding, bipartisan support for this issue. Federal funding for innovation has directly led to important technological breakthroughs, and it is essential we build on this progress by ensuring robust continued investment in early-stage research and development (R&D) programs, tech transfer and commercialization activities, startups and small businesses, and our 17 national laboratories.

**As you work on FY23 appropriations, we urge you to consider supporting an increase in the 302(b) allocations for the Energy and Water Development subcommittee as well as other subcommittees focused on innovation in FY23<sup>1</sup>.** Ultimately, federal investments in clean energy innovation should reach \$35 billion annually as soon as it is feasible, a comparable level to the National Institutes of Health. In particular, Breakthrough Energy submitted FY23 appropriations requests focused on:

- Accelerating clean energy innovation – especially in the hard-to-abate sectors – in underfunded areas including clean hydrogen, sustainable aviation fuel, and carbon dioxide removal
- Developing a secure, domestic source of high-assay low-enriched uranium needed for advanced nuclear reactors in the U.S.
- Supporting researchers, entrepreneurs, and small businesses in doing high risk, high reward R&D
- Enhancing data development and collection to assess embodied carbon in construction materials, which is needed to drive the production and use of clean steel, cement, and other products
- Increasing access to federal financing programs for clean energy projects
- Expanding and modernizing the grid through high voltage transmission

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<sup>1</sup> The Energy and Water Development and Related Agencies Act funds the majority of federal clean energy research, development, demonstration, and deployment activities through the Department of Energy (DOE); however, approximately one-quarter of federal clean energy R&D is performed or funded via other agencies such as the Department of Defense, National Science Foundation, and Department of Transportation. Moreover, agencies like DOE and DOT have an important role in funding infrastructure needed to increase the use of clean energy.



Increased investment in innovation is critical to meeting the following nationally important objectives:

**Climate Change:** Clean energy innovation is vital to our ability to fight climate change. According to the International Energy Agency, many of the technologies needed to reach 100% clean energy are still in the development stages. Even with widespread electrification and deployment of renewable technologies, decarbonizing hard-to-abate sectors like transportation and industry will require innovative solutions such as sustainable aviation fuels and clean hydrogen. The latest Intergovernmental Panel on Climate Change report emphasized **both** scaled-up innovation investments and demand-pull interventions (e.g., tax credits) are needed to rapidly deploy innovative technologies, reduce costs, and avoid the worst impacts of climate change.

**Energy Security:** In addition to being essential to reach our climate goals, investing in clean energy innovation is also key to our country's long-term energy security posture and ability to provide affordable, reliable energy — especially as the globe is dealing with the reverberating effects of Russia's invasion of Ukraine and U.S. families are facing rising energy costs and inflation. Congress should consider clean energy innovation as a key part of the long-term solution. Innovating will allow the U.S. to depend less on fossil fuels and countries like Russia for energy sources and will support efforts to reduce Europe's reliance on Russian gas – thus aiding both our geopolitical and climate goals.

**The Economy and Long-Term U.S. Competitiveness:** Federal investment in clean energy innovation has resounding effects on the economy. A review of the Department of Energy's clean energy R&D program found a return of \$33 for every \$1 of federal investment. Similarly, according to a 2020 Breakthrough Energy and PricewaterhouseCoopers LLP report <sup>2</sup>, every job supported with federal R&D investment adds almost three additional jobs to the U.S. economy and provides higher-than average wages, billions in added economic value, and substantial federal, state, and local tax revenue. It also found that \$9.5 billion in federal energy R&D and associated infrastructure investments in 2018 supported more than 112,000 American jobs, while also contributing \$9 billion in labor income, \$2.8 billion in tax payments, and \$14 billion in economic value.

Given the myriad benefits, we strongly hope you will act with foresight during the FY23 appropriations process to set federal energy RD&D investments at an ambitious level. Ramping up investments in emerging energy technologies can create millions of good-paying jobs, develop the clean solutions our world needs, and ensure that America is at the forefront of clean energy innovation for decades to come.

We are happy to discuss in more detail with you or your staff. Thank you for your consideration.

Sincerely,

Mike Boots  
Executive Vice President  
Breakthrough Energy

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<sup>2</sup> Breakthrough Energy, Impacts of Federal R&D Investment on the U.S. Economy (2020), <https://www.breakthroughenergy.org/-/media/files/bev/bepwcreport09162020.pdf>



Cc: House and Senate Leadership; Members of the Senate Appropriations Subcommittee on Energy and Water Development; Members of the House Appropriations Subcommittee on Energy and Water Development and Related Agencies