

U.S. should launch a national energy innovation mission to reach climate goals, says report

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Research released today recommends that the U.S. federal government triple its annual investment in energy innovation over the next five years to speed clean energy transitions around the world and build advanced energy industries at home. The Center on Global Energy Policy at

Columbia SIPA released Energizing America: A Roadmap to Launch a National Energy Innovation Mission, a detailed guide for federal policymakers to raise energy innovation as a core national priority. Co-authored with scholars from the Information Technology and Innovation Foundation (ITIF), Energizing America is the first in a series of volumes to kickstart a U.S. federal clean energy innovation policy agenda.

Offering a detailed roadmap for the next presidential administration and Congress, the volume released today calls for the [federal government](#) to dramatically increase [federal funding](#) for [energy](#) research, development, and demonstration (RD&D) across ten Technology Pillars that represent critical needs to decarbonize the global economy. John Kerry, 68th U.S. Secretary of State, endorsed Energizing America as, "A plan to make the U.S. the world leader in clean energy [innovation](#) and rise to an existential challenge—creating exciting new jobs along the way."

The federal government currently invests less than \$9 billion per year on energy innovation, less than a quarter of what it invests in health innovation and less than a tenth of what it invests in defense innovation. Raising annual federal investment to \$25 billion by 2025, can jumpstart private innovation and sustain one million jobs over the long run, the authors conclude.

Varun Sivaram, the lead author of the roadmap said, "Clean energy innovation is central to combating [climate change](#)—and to positioning the United States to compete globally in growing cleantech markets. As the IEA warns, half of the emissions reductions needed to swiftly reach net-zero emissions must come from immature technologies that haven't yet reached markets."

The volume explains why energy innovation is a critical national priority and synthesizes lessons from previous federal funding increases for space, health, and defense funding to create detailed recommendations

for ramping up energy innovation funding across five years.

In recent years, clean energy innovation has gained bipartisan support in Congress. Lawmakers from both parties are advancing legislation that would boost funding for energy storage, carbon capture, nuclear energy, smart power grids, hydrogen, and other critical clean energy technologies. But to date, no coherent, overarching roadmap exists to guide investments across the federal government to advance the full spectrum of clean energy technologies. Energizing America fills that gap.

"Innovation is the rare climate policy that enjoys support from both parties," said Jason Bordoff, Founding Director of the Center on Global Energy Policy. "Tripling energy innovation could serve as an economic stimulus for the U.S. economy, creating jobs in industries that will grow exponentially this century."

The roadmap recommends that the incoming presidential administration and Congress take three immediate steps in 2021:

- First, the president should issue a Presidential Policy Directive announcing the National Energy Innovation Mission, establishing energy innovation as a national priority, setting a goal of tripling federal funding for energy innovation in five years, and creating a White House Task Force to coordinate among agencies and speed implementation.
- Second, the next Congress should pass an ambitious budget for Fiscal Year 2022 (FY22) that sharply increases federal energy RD&D funding—focusing particularly on currently underfunded technology pillars—and sets the U.S. on a path to tripling the budget by 2025.
- Third, the United States should immediately reassert its international leadership by recommitting to Mission Innovation,

courting bilateral collaborations to advance energy technologies, and stimulating a competitive race-to-the-top to raise global public funding for clean energy innovation.

"The three steps we are recommending right away would spark federal action on an unprecedented scale to accelerate energy innovation. But that should only be the start," said David M. Hart, co-author and director of ITIF's Clean Energy Innovation Policy Program. "A sustained ramp-up of federal investment, as we have proposed, would create massive opportunities to reduce global carbon emissions while strengthening U.S. industry and creating jobs."

Co-author David Sandalow, a former senior official at The White House, State Department and U.S. Department of Energy, added "Mobilizing the full capacity of the federal government to accelerate energy innovation can make a huge difference in meeting these challenges."

More information: spark.adobe.com/page/Azf8uWSIPJOo9/

Provided by Columbia University

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