

# Re-Energizing America

**A new frontier in energy is emerging.** Defined by challenges like AI-driven increases in power demand and the transition to cleaner energy systems, every choice we make must be rooted in a commitment to keeping America at the forefront of energy innovation and deployment, all while ensuring domestic economic benefits, strong supply chains, and global competitiveness.

Over the past five years, we've learned what works, what doesn't, and where to focus on for the next generation of energy innovation. Clean Tomorrow's new *Re-Energizing America* report offers targeted recommendations for how to move forward. **Now is the time to rebuild American energy innovation leadership to create a reliable energy future that is cleaner, more affordable, and more secure.**



## Looking Back: 2020-2025

**Broad, bipartisan support enabled policymakers to make significant progress toward reinvigorating federal support of the energy innovation pipeline.**

Signed into law by President Trump, the bipartisan Energy Act of 2020 (EA2020) restructured the U.S. Department of Energy's (DOE) research, development, and demonstration (RD&D) capacity and authorized funding for large-scale demonstration projects. From there, additional legislation contributed funding and resources and expanded the capacity of energy technology innovation programs.

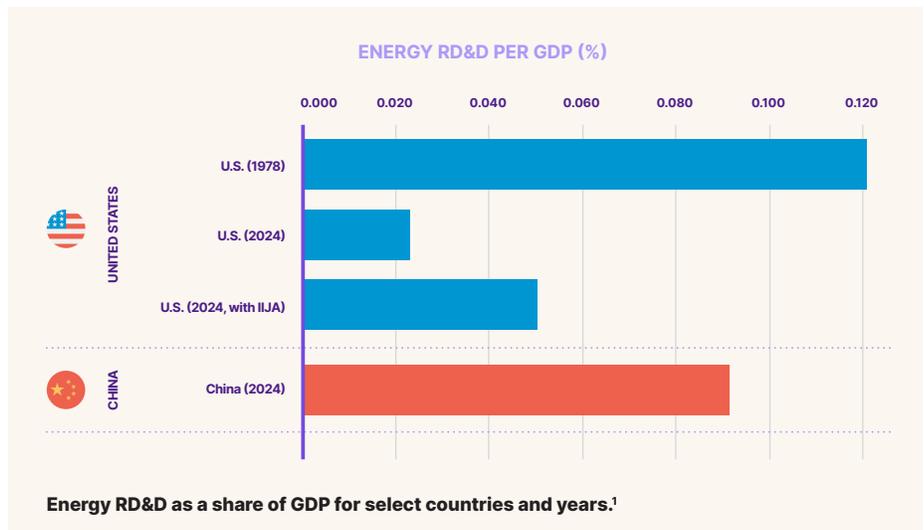
## Federal Role in Energy Innovation

**The federal government has invested in energy innovation for more than a century.**

Federal investment in emerging energy technology isn't just about cutting emissions—it's about securing America's future and giving Americans the opportunity to thrive with cleaner, cheaper energy. That's the promise of energy innovation for Americans nationwide.

Funding for energy RD&D as a share of the U.S. economy peaked half a century ago, but countries like China have since surpassed us. Now, adjusted for GDP, the United States is 13th in the world in innovation spending—far behind global competitors.

With major federal funding set to expire in 2026, our nation faces an innovation cliff. **The solution is clear: beat fragmentation across the innovation pipeline with sustained investment.**



<sup>1</sup> Data from IEA, Tufts University, and Clean Tomorrow.

## Four Policy Imperatives + Ten Technology Pillars

These represent a pragmatic starting point rather than a comprehensive blueprint.

Four policy imperatives now drive the need for renewed federal investment.



**Energy Security:** Our dependence on Chinese-dominated supply chains exposes critical vulnerabilities, from rare earth minerals to battery components.



**Affordability:** Energy costs are spiking due to new demand growth and reliance on aging infrastructure.



**Economic Opportunity:** Faster American energy innovation could create huge economic opportunities at home and abroad.



**Decarbonization:** The continued rise of global emissions requires breakthrough technologies that only sustained innovation can deliver.

Combined with ten aligned technology pillars, these principles paint a clear path forward.

### Re-Energizing America's 10 Technology Pillars

Foundational science and platform technologies	Secure, efficient, digitally enabled power systems	Clean firm electricity generation	Variable electricity generation	Advanced transportation systems
Sustainable fuels	Efficient buildings	Clean and competitive manufacturing	Secure supply chains	Carbon management

## Looking Ahead: 2026-2030

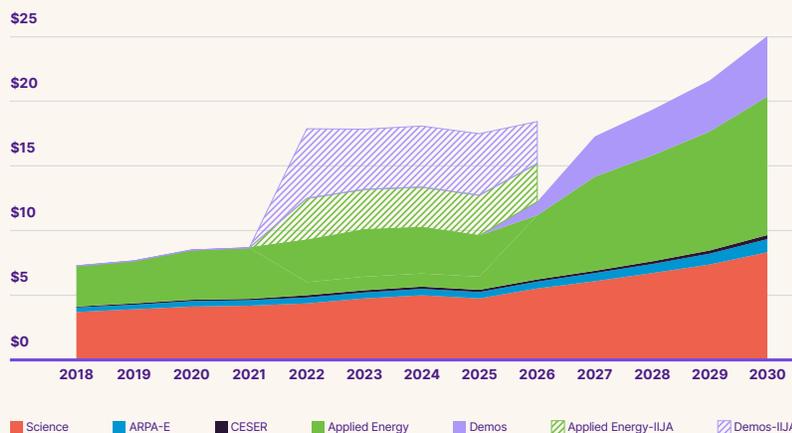
Each year presents a new opportunity to revitalize U.S. energy innovation.

We need a **federal investment of \$25 billion** for the U.S. Department of Energy's (DOE) research, development, and demonstration (RD&D) programs by 2030.

Transforming DOE will require both structural reforms and cultural changes that prioritize collaboration, speed, and long-term thinking. This ideal budget of **\$25 billion—equivalent to less than 0.4% of federal spending**—is built from a strategic assessment of technology priorities, historic investment, and comparison of the U.S. to global peers and competitors.

Success demands increased funding matched with fundamental changes in how federal agencies approach energy innovation to **create an institution built for sustained engagement—one that serves as a reliable partner to American innovators and a trusted engine for our nation's energy security and economic future.**

HISTORIC AND RECOMMENDED FUNDING LEVELS AT DOE, IN BILLIONS OF NOMINAL DOLLARS



## Re-Energizing America Key Recommendations

### 1. Build a unified innovation

**framework:** Create a seamless pipeline from research to deployment, redefining success around shared outcomes.

### 2. Enable cross-program planning

**and funding:** Create opportunities for sustained collaboration across organizational boundaries.

### 3. Enhance program agility and

**responsiveness:** Supplement traditional procurement and financial assistance with alternative funding tools.

### 4. Strengthen industry partnerships for market-driven innovation:

Systematically expand programs making national laboratory resources available to private companies facing specific technical challenges.

### 5. Build for institutional continuity:

Design programs for durability through multi-year budget authority and strong partnerships with states, universities, and industry that create demonstrated value through measurable outcomes.