



Department of Energy Science for the Future Act



COMMITTEE ON
SCIENCE, SPACE,
AND TECHNOLOGY
Republicans

Basic Research to Improve American Energy

America's economy thrives on affordable, efficient energy. We've long led the world in developing new clean energy technologies.

Our challenge is to reduce emissions and address climate change without drastically raising energy prices, devastating our economy, and hurting American wallets.

We must invest in American innovation so we can develop the next generation of clean energy, produce and export clean and affordable technology, and ensure the U.S. remains the global leader in energy.

The U.S. has the most dynamic private sector in the world, eager to license technologies and launch start-ups. These ventures, however, are often driven by technologies that come from basic research funded by the federal government.

The DOE Science for the Future Act invests in basic research that will drive new discovery – paving the way for both public and private American innovators to produce sustainable, affordable, and scalable clean energy solutions.

*The **Department of Energy Office of Science** is the nation's largest federal sponsor of basic research in the physical sciences, addressing energy, environmental, and nuclear challenges through transformative science and technology. DOE sponsors basic research at over 300 federal, academic, non-profit, and private sector institutions.*

The DOE Science for the Future Act is the first comprehensive authorization of the Office of Science, providing for nearly \$50 billion over 5 years. It advances cutting-edge science with a responsible, scalable funding increase and provides a strategic roadmap for DOE's research work.

Overview

Advances Future Energy Technologies

Authorizes basic research to understand energy at molecular and atomic levels and discover innovative materials that will allow us to develop the next-generation of energy technologies like carbon capture, bioenergy, and fusion energy.

Supports Cutting-Edge Scientific Facilities

Conducting big science requires cutting-edge facilities and massive equipment that are unique to our Nation's National Labs. This bill authorizes construction projects and upgrades of major user facilities while incorporating COVID-19 related impacts.

Increases our Scientific Computing Abilities

This bill authorizes research activities in applied mathematics, computational science, and computer science that are foundational to future scientific computing capabilities. It establishes both a Quantum Network Infrastructure Research and Development program as well as the Quantum User Expansion for Science and Technology (QUEST) program, facilitating access to quantum computing hardware and computing clouds for research purposes.

Helps Address Public Health Challenges

Supports the Biological and Environmental Research program to improve our understanding of biological sciences in everything from microbes to plants to the human genome, helping us improve our environment and better understand and address diseases.

Strengthens our STEM Workforce

The DOE Science for the Future Act supports education initiatives through its Workforce Development for Teachers and Scientists program and general infrastructure projects for research facilities.