



C3 SOLUTIONS

Accelerating Nuclear Energy Deployment

The Challenge: Nuclear power is the second largest emissions-free source of electricity in the world, putting it only behind hydropower. Nuclear power will be critical to meeting domestic and international climate targets, but antiquated policies and regulations are slowing its progress.

The Opportunity: Nuclear power has significant potential to meet the world's energy needs and climate goals. Innovative companies are paving the way for the next generation of nuclear power plants that may pose even fewer public safety or proliferation risks than the ones that are currently on the market. In fact, nuclear power is already among the safest, if not the safest, source of energy that exists today. Congress and the administration should establish a flexible, technology-neutral framework to enable different nuclear energy technologies to compete in the marketplace. Whether it is research and development, licensing and permitting, or spent fuel management, policymakers should remove impediments to nuclear energy innovation, investment, and spent fuel management.

The Solutions: To promote nuclear innovation, cost reduction and deployment, policymakers should:

- Streamline permitting for new reactor construction, whether for large light-water reactors, small modular reactors, or microreactors.
- Keep Part 53 of the Regulatory Framework for Advanced Reactors on Track.
- Modernize radiation standards and appropriate funds for the Low Dose Radiation Research Program.
- Appropriate funds to complete the Nuclear Regulatory Commission review of Yucca Mountain.
- Continue to support and appropriate funds for the Pele Program.
- Amend the Nuclear Waste Policy Act to state that new reactors do not need to contract with the Department of Energy for an NRC license for waste management.
- Shift application and safety costs to the federal government.
- Expand international cooperation on commercial nuclear power

Key Facts:

- With 440 reactors (and 50 reactors in construction across 50 countries), nuclear provides about 10 percent of the world’s power.
- In the United States, 93 reactors in 28 states generate approximately 20 percent of the country’s electricity and about half of the country’s emissions-free electricity.
- Nuclear is among the [safest](#) forms of energy on the planet.
- By producing carbon-free energy, the American nuclear industry [prevented](#) more than 476 metric tons of CO2 from entering the atmosphere in 2019. That’s equivalent to removing 100 million cars from the roads.
- Nuclear energy is a desirable source of clean, reliable electricity, with [a capacity factor](#) (the amount of time a power plant produces energy) of 93%.

Legislation to Follow:

Legislation	Bill Number(s)	House Sponsor	Senate Sponsor	House Cosponsor(s)	Senate Cosponsor(s)
Accelerating Nuclear Innovation Through Fee Reform Act	H.R.6154	Gonzalez (R-OH-16)		Luria (D-VA-2)	
American Nuclear Infrastructure Act	S.2373		Capito (R-WV)		Whitehouse (D-RI), Barrasso (R-WY), Booker (D-NJ), and more
Fission for the Future Act	S.3428 and H.R.7360	Doyle (D-PA-18)	Manchin (D-WV)	Gonzalez (R-OH-16), Lamb (D-PA-17), Donalds (R-FL-19)	Barasso (R-WY)
Modernize Nuclear Reactor Environmental Reviews Act	H.R.1559	Duncan (R-SC-3)			
Nuclear Waste Policy	H.R.2699	McNerney (D-CA-9)		Shimkus (R-IL-15), Peters (D-CA-52), Duncan (R-SC-3), and more	