

Office of
NUCLEAR ENERGY

About the Office of Nuclear Energy

Nuclear energy is a carbon-free energy source that brings resilience and reliability to our nation's electrical grid. Nuclear power reliably and economically contributes almost 20% of electrical generation in the United States. It is the single largest contributor (roughly 60%) of non-greenhouse-gas-emitting electric power generation in the nation.

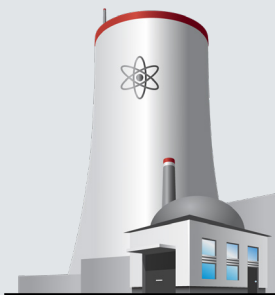
The U.S. Department of Energy's Office of Nuclear Energy (NE) is advancing nuclear power to help meet our nation's clean energy needs and bolster the resiliency of our electricity supply. NE is advancing nuclear energy technologies through targeted early-stage research and development (R&D)—prioritizing support for advanced manufacturing methods, instrumentation, and reactor technologies—to ensure a strong domestic industry now and into the future.

"If you really care about this environment that we live in... then you need to be a supporter of this amazingly clean, resilient, safe, reliable source of energy."
– Energy Secretary Rick Perry

By focusing on the following goals and making strategic investments, we are working toward the administration's commitment to energy dominance and priorities of national security, economic growth, and job creation.

NE Focus Areas

Improve the efficiency and sustainability of our current fleet of reactors



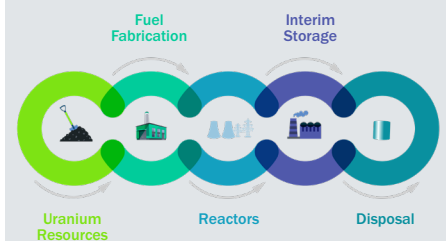
By continuing to support improvements to the efficiency, productivity, and operating lifetimes of our nation's nuclear fleet through technology R&D, the Department is helping industry realize its full potential in contributing to our nation's emission-free, reliable electricity supply.

Develop new, advanced technologies that will help meet future environmental and energy goals



Advanced reactor have the potential improve performance and efficiency, reduce costs, enhance resource utilization and minimize waste, and provide flexibility to include non-electric applications.

Restore our nation's nuclear energy infrastructure and fuel cycle research and development capabilities



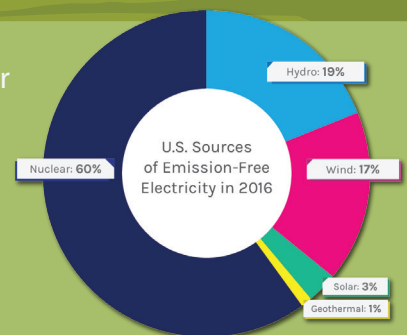
NE leverages our world-class national laboratory system and partnerships with industry to ensure we have the nuclear energy infrastructure and R&D capabilities to support advanced nuclear technology development and future energy needs.

5 Fast Facts About Nuclear Energy

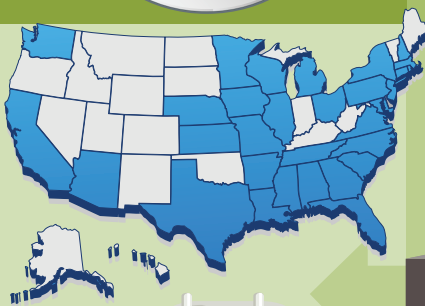
1 Nuclear power plants produced **805 billion kilowatt hours** of electricity in 2016 - enough to power 73 million homes.



2 Nuclear power is **America's largest domestic source** of clean energy.



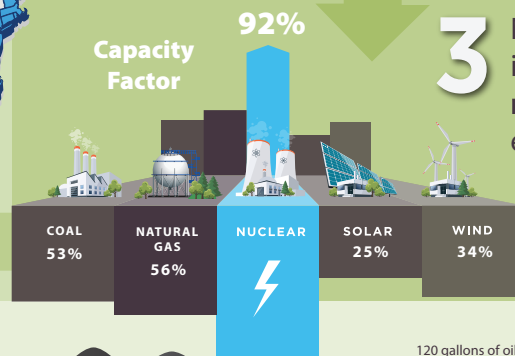
4 Nuclear helps power **30 U.S. States** with clean carbon-free electricity.



Capacity Factor

92%

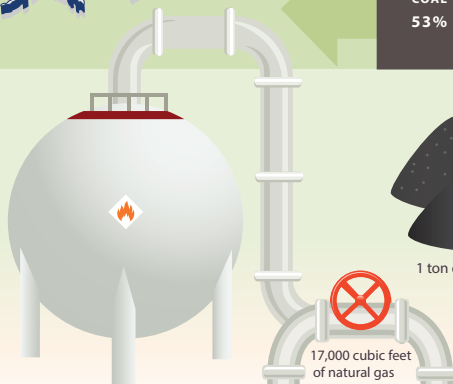
3 Nuclear power is **America's most reliable** energy source.



5 Nuclear fuel is **extremely dense**.



1 uranium pellet=



1 ton of coal

17,000 cubic feet of natural gas



120 gallons of oil

