Why Nuclear Makes a Great Neighbor

Clean, safe, reliable power that strengthens the communities around it.

Nuclear Is Clean

~50%

OF AMERICA'S CARBON-FREE ELECTRICITY

Nuclear is the largest domestic source of clean energy. The U.S. fleet avoids more than 470 million metric tons of carbon emissions, the equivalent of taking 100 million cars off the road.

Reactors produce power by using heat from fission, the splitting of uranium atoms, to boil water into steam that spins a turbine. Nothing burns, so there is no particulate pollution or greenhouse gas.

DOE research shows converting a coal plant to nuclear could cut local carbon dioxide emissions by up to 86 percent.

Nuclear Is Safe

20,000+

REACTOR-YEARS OF OPERATION ACROSS 36 COUNTRIES

U.S. nuclear plants are among the safest and most secure industrial facilities in the world, designed, built, and operated to rigorous standards with redundant layers of protection.

The Nuclear Regulatory Commission sets stringent rules for operations, security, and emergency preparedness, and keeps full-time inspectors on site.

The next generation will be even safer. Advanced reactors boast enhanced safety features and fuels that make them self-regulating and prevent overheating. The safety of workers and neighbors always comes first.

Nuclear Is Reliable

90%+

OF THE TIME AT FULL CAPACITY

That is 1.5 to 2 times more reliable than natural gas and coal, and 2.5 to 3.5 times more reliable than wind and solar.

Plants run 24/7 and refuel only every 1.5 to 2 years. Advanced fuels on the horizon could extend that further while reducing spent fuel over a reactor's lifetime.

Day or night, nuclear is a neighbor you can count on.

Nuclear Is Good for Business

500–800

JOBS PER PLANT, PAYING 30% ABOVE LOCAL AVERAGE

The U.S. nuclear sector directly employs 60,000 people in high-quality, long-term jobs, many without a college degree requirement, and building a plant takes thousands of workers.

According to NEI, every 100 plant jobs create 66 more in the community, and plants contribute billions in federal and state taxes each year. A national survey found more than 90 percent of plant neighbors say nuclear provides good local jobs and helps the economy.

Nuclear Keeps a Low Profile

1.3 sq mi

PER 1,000 MEGAWATTS

Nuclear has one of the smallest footprints of any generation source, and small modular reactors and microreactors will shrink it further. No pipelines, shipping terminals, or coal trains required.

One thimble-sized uranium pellet holds the energy of one ton of coal, 120 gallons of oil, or 17,000 cubic feet of natural gas.

All 90,000 metric tons of U.S. spent fuel since the 1950s would fit on a single football field less than 10 yards deep.



DID YOU KNOW?

Bananas are among the most radioactive foods we eat.

A small part of the potassium in a banana is naturally radioactive. Eating 10 bananas gives the same radiation dose as living near a nuclear power plant for a year.

Sources: U.S. Department of Energy, Office of Nuclear Energy; World Nuclear Association