

NUCLEAR ENERGY IN NEW JERSEY

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Nuclear energy has been a cornerstone of New Jersey's energy system for more than 50 years, providing reliable, around-the-clock electricity while supporting the state's energy and economic goals.

NEW JERSEY'S NUCLEAR FLEET

New Jersey has three operating nuclear reactors located on Artificial Island in Salem County, which are operated by PSEG Nuclear.



BY THE NUMBERS



40%

of the electricity generated in New Jersey



80%+

of New Jersey's emission-free electricity



**2.7
MILLION**

homes powered



**3,500
MW**

of generating capacity

WHY NUCLEAR ENERGY?



RELIABLE

New Jersey's nuclear power plants operate at approximately 93% capacity factor, making them among the most reliable sources of electricity generation.



LONG-LASTING

Commercial nuclear reactors are designed to operate for decades and continue to provide reliable around-the-clock electricity for residents and businesses.



24/7 ELECTRICITY

Nuclear power plants generate electricity 24 hours a day, 7 days a week, regardless of weather conditions.



EMISSIONS-FREE

Nuclear power plants produce emissions-free electricity, generating over 80% of New Jersey's carbon-free electricity.



ECONOMIC BENEFITS

Nuclear energy is a major economic driver, supporting thousands of jobs and contributing significantly to the local economy.



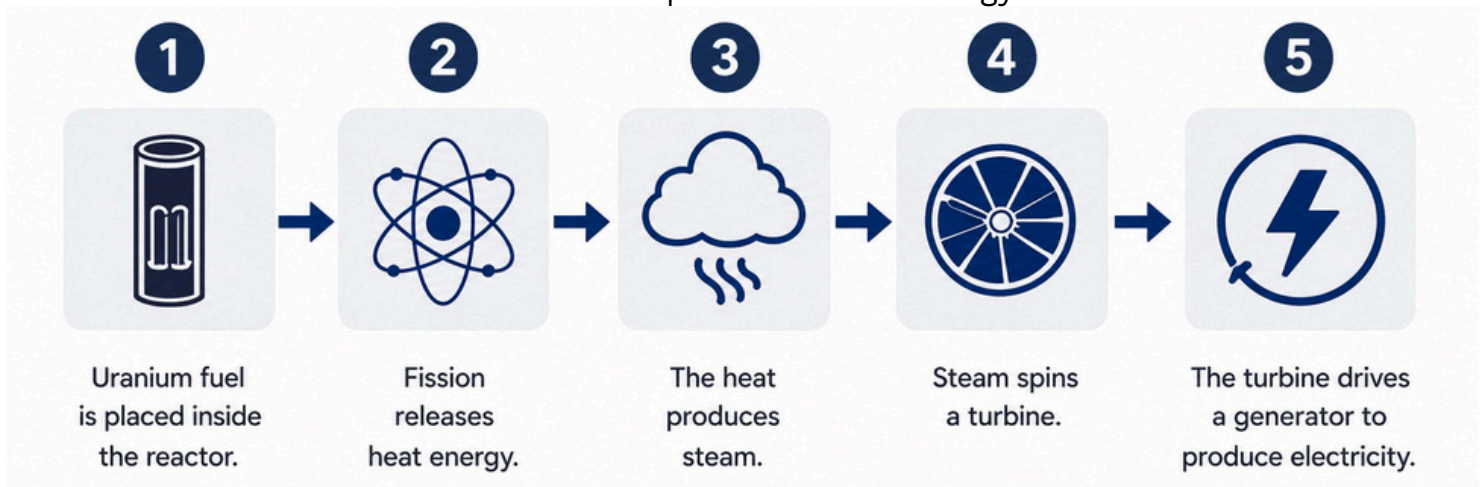
NEW JERSEY'S ENERGY FUTURE

Nuclear energy helps New Jersey achieve its reliability, affordability, and clean energy goals while strengthening the state's energy independence.

NUCLEAR 101 & TECHNOLOGY OVERVIEW

HOW NUCLEAR ENERGY WORKS

Nuclear power plants generate electricity using heat from fission, the process by which atoms split and release energy.



NUCLEAR FUEL

- Most U.S. reactors use low-enriched uranium fuel.
- Enriched to approximately 3%–5% uranium-235 for peaceful commercial energy use.
- Uranium is formed into small ceramic pellets, placed into fuel rods, and assembled into bundles for use in the reactor.



USED FUEL MANAGEMENT

- After fuel is removed from a reactor, it is safely stored in specially designed pools and dry cask storage systems at plant sites.
- All storage is done under the oversight of the Nuclear Regulatory Commission (NRC).

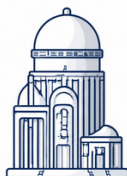


ADVANCED NUCLEAR & SMALL MODULAR REACTORS (SMRs)

ADVANCED NUCLEAR

Advanced nuclear is a broad category of reactor technologies that includes both improved Gen III+ light-water reactors and newer Gen IV designs that may use alternative coolants. These technologies build on decades of operating experience while incorporating advances in safety, materials, fuels, and plant design. Potential benefits may include:

- ✓ Enhanced safety features
- ✓ Improved operational flexibility to support the grid
- ✓ Improved efficiency and reduced waste
- ✓ Reliable, emissions-free electricity



SMALL MODULAR REACTORS (SMRs)

SMRs are advanced nuclear reactors with smaller unit sizes than traditional large nuclear plants. They can be manufactured in modules and transported to the project site for installation and assembly. SMRs may offer:

- ✓ Smaller physical footprints
- ✓ Potential for modular construction and phased deployment
- ✓ Reduced on-site construction timelines
- ✓ Flexible sizing for different energy needs
- ✓ Reliable, emissions-free electricity

