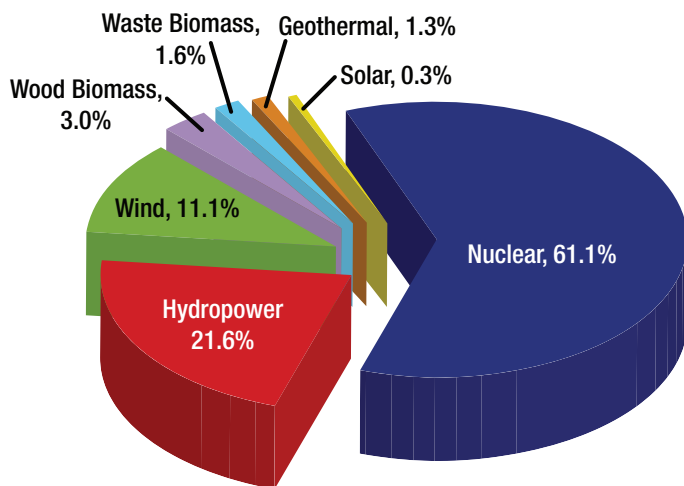


Expand Nuclear Energy Use and Commit to a Nuclear Waste Solution

Nuclear energy is a key source of electric power and has operated safely in the United States for decades, with no emissions. Nuclear energy produces about one-fifth of the electricity we consume and accounts for nearly two-thirds of the country's emissions-free power generation. Currently, the U.S. generates more electricity from nuclear power than any other nation. Nuclear reactors operate at about a 90% capacity factor, higher than any other fuel type, and efficiency gains since 1990 have resulted in a 40% increase in electricity generated without building new plants.

U.S. Sources of Emissions-Free Electricity: 2012



* Operating efficiency is measured by capacity factor, the ratio of the amount of electricity produced by a plant to the amount of electricity that could have been produced if the plant operated all year at full power.

Policy Recommendations

- ✓ In defining the technologies that are eligible to meet Renewable Portfolio Standards (RPS) or Clean Energy Standards, new and existing commercial nuclear energy should not be excluded. Any such generation mandates should treat all non-emitting resources equally without picking technology winners and losers.
- ✓ The Federal Energy Regulatory Commission and various Regional Transmission Organizations need to examine the impacts of states' RPS' and tax credits on the reliability of the electrical grid and dispatch of nuclear power.
- ✓ Nuclear energy should be treated the same as other low-emission energy sources in new energy legislation. Policy-makers should ensure government policies do not distort competitive markets, causing early retirements in the country's nuclear fleet.
- ✓ The president and Congress must commit to a permanent solution to store America's nuclear waste. If the administration continues to not implement the law, it is responsible for proposing and changing the law now.
- ✓ Until the law has been changed, the administration must comply with the court's order to cease collection of Nuclear Waste Fund fees.
- ✓ Congress should pass legislation that creates an independent agency vested with the government's nuclear waste management responsibilities.
- ✓ The administration and Congress should continue to fund public-private programs that seek to demonstrate and license advanced nuclear technologies, including different small modular reactors.
- ✓ The administration should take advantage of America's commercial nuclear industry and aggressively pursue civilian nuclear cooperation agreements with other nations.
- ✓ DOE should propose a formal uranium inventory management plan. This plan should include the creation of a strategic reserve of low-enriched uranium from existing inventory to guard against supply disruptions.

Finding a Solution to Nuclear Waste Storage and Disposal

Even with these benefits in mind and the clear need for nuclear energy as a safe, reliable and affordable source of electricity, the government has created barriers for new construction and jeopardized existing plants.

Tremendous front-loaded costs of financing construction of new reactors, low natural gas prices that have impacted construction and operations decisions of utilities, and a lack of a clear policy for nuclear waste have created an uphill battle for nuclear plants and operators to overcome. The administration and Congress have an obligation to establish a durable policy that ensures the federal government will meet its legal obligations while creating the regulatory certainty to foster the expansion of commercial nuclear power in the United States.

Despite a legal obligation, a political impasse has prevented the federal government from establishing a permanent nuclear waste storage facility. Developing and implementing a policy to manage the country's nuclear waste is crucial to ensuring the viability of this integral energy source for generations to come. The federal government's failure to implement the law is no longer a problem that can be pushed off to the future.

Under the Nuclear Waste Policy Act (NWPA), the government can levy a

nuclear waste fee on plants to offset the costs of the disposal program, and it has a legal responsibility to take nuclear waste from nuclear plants. While the need for a clear storage policy has gone unresolved, the Department of Energy continues to collect fees on the industry. In November 2013, the U.S. Court of Appeals for the District of Columbia ruled that DOE must stop collecting fees as there is no viable repository in which to store nuclear waste. Even without a legally-mandated repository, nuclear waste continues to be safely held on site at nuclear plants.

Domestically, four new reactors are under construction—two in Georgia and two in South Carolina—with start-up planned beginning in 2017, and internationally, more than 60 reactors are under construction in 13 countries and another 130 are in the planning phase.

In addition to market trends that make it difficult for many merchant companies operating in some competitive markets to continue to operate some nuclear reactors profitably, federal and state subsidies for renewable electricity have distorted wholesale power markets. Grid stability could suffer and overall costs could increase because of the intermittent nature of some renewable power sources.

Nuclear energy provides

20%

OF THE ELECTRICITY CONSUMED IN AMERICA.

Nuclear facilities produce

63%

OF EMISSIONS-FREE ELECTRICITY IN THE U.S.

Nuclear plants operate at over

90%

OF CAPACITY—HIGHER THAN ANY OTHER SOURCE OF POWER.

**Want to know more about nuclear energy?
Read the full report, *Energy Works for US*.**



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