FUEL FACTS: NUCLEAR POWER



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Did You Know?

- There are currently 95 licensed –to -operate nuclear plants in the U.S., which generate about 20% of our nation's electric power.
- On December 20, 1951, Argonne Nat'l Lab and the Nat'l Reactor Testing Station, watched 4 light bulbs glow, powered by the 1st nuclear reactor to generate electricity.
- The average age of existing reactors is 40 years, but the lifespan can extend to 80 years.

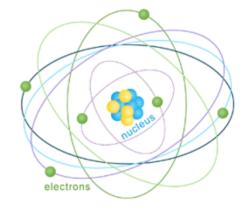
Nuclear power, the use of sustained nuclear fission to generate heat and electricity, contributes nearly 20 percent of the electricity generated in America and just over 10% in Indiana. The United States has used nuclear power for more than 60 years to produce reliable, low-carbon energy. One of Indiana's largest electric utilities, Indiana Michigan Power (I&M) owns and operates the D.C. Cook generating station located in Bridgman Michigan, just over the Indiana border on Lake Michigan. The plant can generate up to 2.2 GW of electricity, serving over 1.5 million homes in their Michigan and Indiana service area.

HOW DOES NUCLEAR POWER WORK?

Nuclear power plants generate electricity like any other steam-electric power plant. Water is heated, and steam from the boiling water turns turbines and generates electricity. The main difference is the heat source. Heat from a self-sustaining chain reaction boils the water in a nuclear power plant, while coal, oil, or gas is burned in other power plants to heat the water.

In the U.S., the Nuclear Regulatory Commission (NRC) licenses and regulates the Nation's civilian use of radioactive materials to protect public health and safety, promote the common defense and security, and protect the environment.

Specifically, the NRC regulates commercial nuclear power plants; research, test and training reactors; nuclear fuel cycle facilities; and the use



of radioactive materials in medical, academic and industrial settings. While the NRC only regulates industries within the United States, the agency works with similar organizations around the world to enhance global nuclear safety and security.

Nuclear energy provides constant and consistent electricity, helping to ensure the electricity needs of Indiana are met. This longevity of nuclear energy makes it less subject to price volatility, and helps to moderate electricity generation costs and ultimately the rates to Hoosiers. Further, it is a clean source of energy generation, keeping air clean for Hoosiers. For more information, check out www.nrc.gov.

