William F. Wyman 4 Station

How Conventional Steam Turbines Work

W. F. Wyman 4 is a conventional steam-powered plant, meaning it burns fuel, in the case of Wyman, residual fuel oil, to boil water to make steam to turn a turbine generator. Heat from burning oil in the boiler heats water and converts the water to steam. The steam is then superheated and piped to turbines, where it blows over the turbine blades, turning the turbine shaft.

The spinning turbines in the W. F. Wyman 4 unit are connected by a shaft to a generator. The shaft turns the generator, and the generator makes electricity. The steam is then condensed back to water, reheated in the boiler, and the process is repeated in a continuous cycle.

Overview

- Located in Yarmouth, Maine, on Cousins Island in Casco Bay along the coast of Maine
- Operated by a subsidiary of NextEra Energy Resources
- W. F. Wyman is an oil-burning plant, which began operation in 1978
- The plant consists of four units. The largest unit, W. F. Wyman Unit 4, is 613 megawatts.
- In 1999, a subsidiary of NextEra Energy Resources acquired an ownership interest in Unit 4 and currently owns 516.8 megawatts
- When operating at full power, the plants generate enough electricity for approximately 600,000 homes

Benefits

- Provides employment opportunities
- Adds tax base to the city
- Supports economy through purchases of regional goods and services
- Supports various local community organizations

About NextEra Energy Resources

- A leading clean energy provider operating wind, natural gas, solar and nuclear power plants
- A portfolio of power generating facilities across the United States and in Canada
- The largest wind generator in North America
- A subsidiary of NextEra Energy, Inc., with headquarters in Juno Beach, Florida
- More than 95 percent of our electricity comes from clean or renewable sources
- Visit us at www.NextEraEnergyResources.com