

Ocean State Power



Ocean State Power (OSP), located in Burrillville, Rhode Island, is a 560 megawatt (MW) gas-fired combined-cycle power plant. The plant uses advanced control technologies to minimize air emissions and a zero-liquid-discharge water treatment system to eliminate any process water discharges to the environment.

OSP has been hailed by the Federal Energy Regulatory Commission as a model for independent power and was selected in 1995 by the U.S. Environmental Protection Agency (EPA) as one of ten companies to take part in the EPA's Environmental Leadership Program. OSP is the largest power plant in Rhode Island.

Facility Highlights

Configuration:

4 x 2 combined cycle.

Location:

Burrillville, Rhode Island, USA.

In-Service Date:

Unit I, 1990; Unit II, 1991.

Capacity:

560 MW electrical.

Fuel:

Natural gas and #2 fuel oil.

Environmental Features:

Zero-liquid-discharge water treatment system. Water injection into the gas turbine combustors combined with selective catalytic reduction units using aqueous ammonia to meet NO_x emission standards.

Owner:

TransCanada OSP Holdings Ltd., a wholly-owned subsidiary of TransCanada Pipelines Limited.

Operator:

TransCanada Power Operations Ltd.

Primary Customers:

TransCanada Power Marketing Ltd., Boston Edison Company/NSTAR.



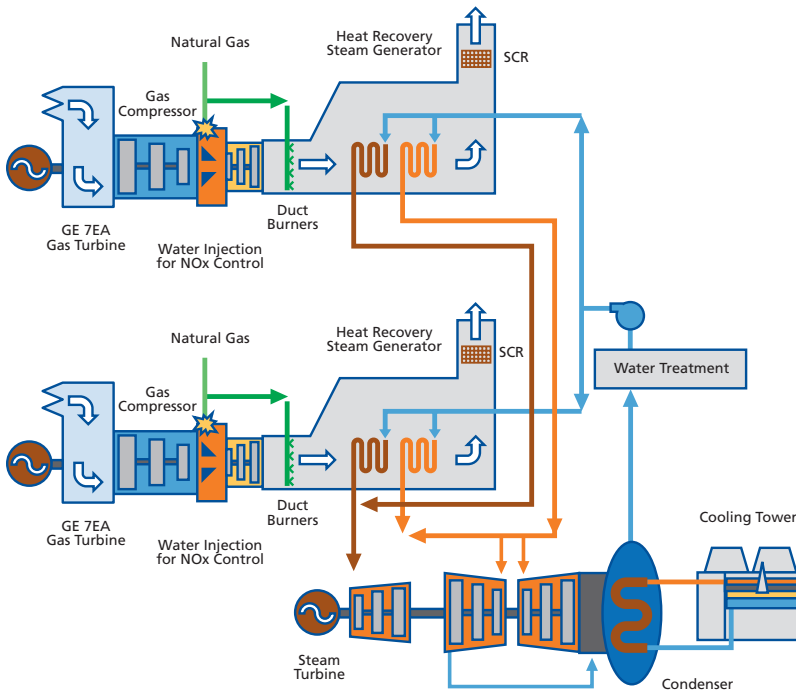
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OSP has four 87.3 MW natural gas-fueled General Electric 7EA combustion turbine generators, each with a heat recovery steam generator (HRSG), and two 90 MW steam turbines. The gas turbines use water injection in the combustors to minimize NO_x production, and catalytic reducers on each HRSG to further reduce NO_x emissions to acceptable levels.

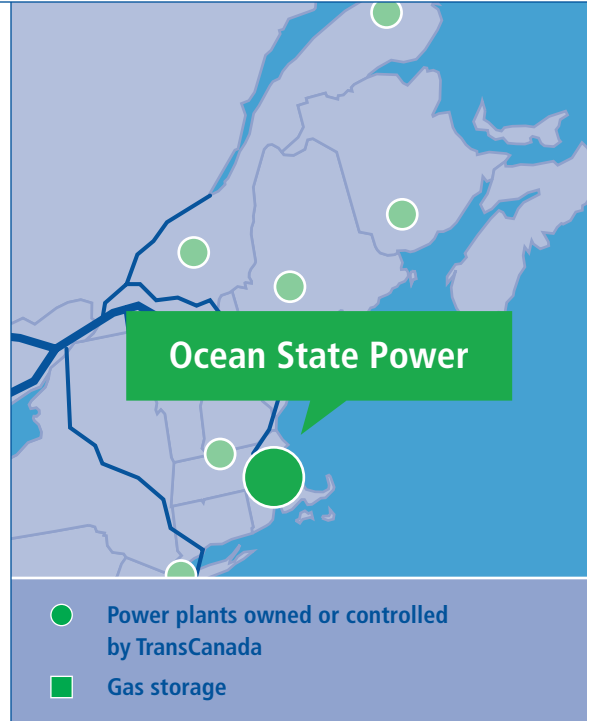
Natural gas is burned in the combustion turbines to produce electricity and hot exhaust gases. The exhaust gases from each turbine then pass through dedicated HRSGs, which produce high pressure, superheated steam that is used in the condensing steam turbines to generate more electricity. Combined-cycle technology gives OSP an operating efficiency that is 50 per cent higher than conventional steam technology.

OSP was the first power plant built in New England to use Canadian natural gas exclusively. It was one of the first major generating facilities to contract for a firm 20-year gas supply directly from producers and to arrange firm transportation to the plant. At full capacity, OSP uses approximately 100 million cubic feet of natural gas daily.

OSP employs approximately 22 employees. OSP is a major purchaser of local goods and services with labour and supplies sourced locally where possible.



Ocean State Plant Schematic



For further information on this facility, contact:

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