

# Blundell Plant



Pacific Power  
Rocky Mountain Power  
PacifiCorp Energy



Blundell Plant is named for Harry Blundell, a former president of Utah Power & Light Co., now Rocky Mountain Power. Although one of eight steam plants we operate, it is the only one that creates steam from water heated by magma at depths reaching as far as 20,000 feet below the Earth's surface.

It sits on the Roosevelt Hot Springs, a known geothermal resource area that spans just more than 30,000 acres. The plant is on 2,000 acres of private and U.S. Bureau of Land Management land, 800 acres of Utah State School and Institutional Trust Lands Administration and 400 acres we own near Milford, Utah.

PacifiCorp is the sole owner of the 38-megawatt geothermal plant which consists of two different generating units. The 26.1-megawatt Unit 1 uses "flash" technology and was commissioned in 1984. In 2007, we expanded the plant's capacity by 12 megawatts with the addition of the Unit 2 "bottoming" cycle. The "bottoming" cycle employs an innovative "binary" heat-recovery process to extract more energy from the hot geothermal brine left over from the steam separation cycle.

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In the “flash” process, steam and brine from the production wells are separated in centrifugal, wellhead separators. Pipes carry the steam from the separators to the Unit 1 steam turbine which rotates the generator to produce electricity. In the “bottoming” cycle, wellhead brine from the centrifugal separators is sent through heat exchangers to heat iso-pentane, a fluid similar to propane, to expand through a separate turbine and generate electricity in a closed loop “binary” process. The geothermal brine, after passing through the iso-pentane heat exchangers, is returned to the geothermal reservoir through the injection wells.

Our system uses four production wells and three injection wells that are distributed across an area approximately 4 miles long. About 6 miles of brine piping and 2 miles of steam piping tie the system together.

PacifiCorp is one of the lowest-cost electricity producers in the United States, providing approximately 1.7 million customers in the West with reliable, efficient energy. PacifiCorp operates as Rocky Mountain Power in Utah, Wyoming and Idaho, and as Pacific Power in Oregon, Washington and California. PacifiCorp’s electric generation, commercial and energy trading, and mining functions are operated as PacifiCorp Energy.



Some of the renewable attributes associated with Blundell may be used to comply with state renewable portfolio standards or other regulatory requirements, or sold to third parties in the form of renewable energy credits or other environmental commodities.

