

## PRESS RELEASE

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### ENEL BEGINS OPERATIONS AT WORLD'S FIRST COMMERCIAL GEOTHERMAL-HYDRO HYBRID POWER PLANT

- *The Cove Fort plant is the world's first large scale power generation facility to combine medium enthalpy, binary cycle geothermal power with hydropower technology*
- *Tests of the innovative hydro generator technology added to the geothermal injection well resulted in an overall increase in output of 1,008 MWh between July and September 2016*

**Rome, December 6<sup>th</sup>, 2016** – Enel S.p.A. (“Enel”), through its subsidiary Enel Green Power North America, Inc. (“EGPNA”), has started operations at the world’s first integrated, commercial-scale geothermal-hydro power plant at its Cove Fort site in Utah. At Cove Fort, EGPNA added a fully submersible downhole generator technology to a geothermal injection well, combining geothermal and hydroelectric power at one site.

*“The operation of this technology, a world’s first, is a major milestone for the geothermal industry and a reinforcement of our commitment to innovation and energy efficiency,” said **Francesco Venturini**, Head of Enel’s Global Renewable Energies. “We are creating innovative solutions that are making renewable energy better, stronger and smarter. As a result we have once again discovered a more resourceful way to maximise plant operations and power generation with the aim of using this technology at our facilities around the world.”*

Findings from the initial testing phase held between July and September 2016 reveal that the addition of the hydro generator to the geothermal injection well resulted in an overall increase in output of 1,008 MWh over this time, offsetting the energy consumption of the Cove Fort plant by 8.8%, therefore improving the plant’s operational efficiency.

The innovative generator technology captures the energy of the water flowing back into the earth to generate additional electricity while also better controlling the flow of brine back into the ground. The presence of the generator creates pressure against the brine flow, which reduces the flow’s turbulence into the well, hence minimising the likelihood of any potential damage to the well. The result is a first-of-its-kind innovation that can reduce operational and maintenance expenses, while also having the potential to generate additional revenues.

Cove Fort is EGPNA’s second hybrid power plant to begin operations in the United States. The company also operates the award-winning Stillwater facility in Fallon, Nevada, the world’s first power plant to combine medium enthalpy, binary cycle geothermal, solar thermal and solar PV technologies at the same site.

With an installed capacity of 25 MW, Cove Fort began operations in 2013 and generates up to 160 GWh of power each year, powering more than 13,000 US households while avoiding the annual emission of about 115,000 tonnes of CO<sub>2</sub> into the atmosphere.



EGPNA is present in 23 US states and two Canadian provinces with more than 2.5 GW of installed capacity spread across four different renewable energy technologies: wind, solar, geothermal and hydropower.

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