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Exergy wins contract for 4MW binary plant in the Azores, Portugal

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Signing Ceremony on the Azores, Portugal, Oct. 22, 2015 (source: Exergy)

Exergy wins contract for the construction of a 4 MW gross geothermal binary plant in the Azores, Portugal.

In a release this week, EXERGY announced the signing of a contract with EDA Renováveis for the construction of a 4MW gross geothermal binary plant in the Azores, Portugal. The client, EDA Renováveis, is the renewable energy segment of EDA (Energy do Azores), the utility company of the Azores. The plant will be built on Terceira Island in an area called Chambre-Pico Alto.



The scope of the contract is to realize a turnkey solution for the construction of the Pico Alto geothermal power plant utilizing the geothermal resource available from the existing wells in the most efficient way. The design and manufacturing of the ORC plant and the engineering, procurement and construction phases will be carried out by EXERGY together with CME, a well-established international EPC company with headquarters in Lisbon, Portugal.

The resource is at high enthalpy and both vapor and liquid phases are exploited after separation. The use of the binary technology has been preferred to the traditional flash power plants due to its better fitting to the environmental constraints and its higher capacity of adapting to the variation in resource flow rate and pressure.

The plant, that is planned to be fully operational by the beginning of 2017, will exploit the resource by means of an efficient cycle design that utilizes the heat available either in the geothermal brine and steam flows in its heat exchangers. No extra water will be used thanks to the direct air-cooling of the working fluid. The highest possible conversion efficiency will be reached thanks to the Radial Outflow Turbine specifically designed for EDA Renováveis by EXERGY's engineers.

A groundbreaking ceremony for Pico Alto project was held on Terceira on 22nd October, organized by EDA Renováveis and chaired by the Regional Secretary of Tourism Mr. Vítor Ângelo de Fraga and the Chairman of EDA Renováveis Prof. Duarte José Botelho da Ponte. Taking part in the ceremony, EXERGY's CEO **Claudio Spadacini** commented on this new contract: *"We are proud to supply our technology for this project, which will provide sustainable and reliable green energy to the inhabitants of the wonderful Terceira Island. The remote location of the site, the unpredictability of the resource and the aggressive marine environment are the challenges of this project that EXERGY and our construction partner CME are willing to face. As always our goal is to go beyond limits and provide our customer with an efficient and reliable binary power plant"*.