



## EXERGY TO SUPPLY BINARY SYSTEM FOR EDC'S FIRST BRINE RECOVERY GEOTHERMAL PLANT IN THE PHILIPPINES

*The binary unit will use the geothermal brine of two existing flash power plants onsite to produce additional power and enhance the exploitation of the geothermal field*

**Olgiate Olona, 19 April th 2021** – EXERGY INTERNATIONAL, a leading provider of new-generation geothermal binary power plants, and a part of the **Chinese TICA Corporation**, has signed a new contract with **Energy Development Corporation (EDC)** for the supply of an ORC binary system. Located in the Philippines on the Mindanao island, the new **Mindanao 3** unit will be EDC's first geothermal **brine recovery plant** to go online in 2022. It will help generate an additional 3,6 MWe of power from an existing geothermal field that utilizes the waste geothermal brine available from Mindanao 1 and 2 steam power plants, thus boosting the efficiency and sustainability of power generation at the site.

EDC is the world's **largest geothermal energy producer** boasting over 40 years of history and over 1,180 MW of geothermal capacity in its portfolio. EDC has made the Philippines the third largest geothermal energy producer in the world for over three decades and an acknowledged leader in wet steam field technology.

The scope of Exergy's project involves the **engineering, design and supply** of the ORC system and technical equipment, including the cooling towers and the brine dosing system. Moreover, Exergy's task encompasses a substantial **technical advisory** service to EDC for the project execution.

Exergy's solution for this project consists of a **single pressure level bottoming cycle** equipped with a Radial Outflow Turbine that will recover the thermal energy to produce 3,6 MWe of green power before the brine is reinjected into the reservoir.

The overall project has a very tight time schedule, and the start-up of the plant is expected by the first half of 2022. Once in operation, the ORC systems will help save around 16.000 tons of CO<sub>2</sub> emission per year and 5000 tons of oil equivalent (TOE) consumed per year.

**Albert Yam**, CEO of EXERGY INTERNATIONAL comments: "We are very pleased that we have been selected by EDC for this project and we are eager to work side by side with one of the most highly recognized renewable energy players worldwide. The geothermal market in the whole Far East region has enormous potential still to be harnessed and can offer many opportunities to prove the reliability of Exergy's cutting-edge technology for green power generation. We hope this could be the beginning of a trustworthy lifetime business relationship with EDC under our shared vision of shaping a decarbonized energy future".

**Marco Frassinetti**, Exergy's Sales Director adds: "This award is the result of an extensive and accurate cooperation between Exergy's and EDC's team to tailor an offer that could meet the customer



requirements and we are very proud of the positive outcome of our joint effort. Brine recovery is a key application for our ORC technology, and it can effectively help to increase the power output of a flash plant with zero environmental impact. Moreover, brine recovery projects can be more easily implemented than greenfield geothermal, with much lower investment risks and start-up time. This first project with EDC is an excellent reference to develop this application”.

With this new contract EXERGY’s raises its portfolio in geothermal application at 442 MWe confirming as the second ORC supplier worldwide for capacity installed and under delivery.

**EXERGY** is the developer and manufacturer of Organic Rankine Cycle (ORC) systems with the pioneering Radial Outflow Turbine technology. **EXERGY’s** proprietary technologies, covered by a number of patents, allow for highly efficient energy production via the exploitation of heat sources from geothermal, waste heat from industry, biomass and concentrated solar power. EXERGY portfolio counts more than 470 MWe and the second largest geothermal binary fleet worldwide. **EXERGY** is a part of Chinese TICA Group, a leading integrated system and service provider in HVAC. From the headquarters in the north of Italy (Milan), **EXERGY** export and implement its technology worldwide with a particular focus on high growth potential markets. Website: <http://exergy-orc.com/>

**EXERGY’s PRESS CONTACT:**

Sara Milanesi  
Marketing & Communications Manager  
Ph. +39 0331 1817620  
[s.milanesi@exergy.it](mailto:s.milanesi@exergy.it)