



EDC's FIRST GEOTHERMAL BRINE RECOVERY PLANT WITH EXERGY TECHNOLOGY IS NOW OPERATIONAL IN THE PHILIPPINES

- *Designed and supplied by EXERGY in less than 12 months the ORC system exploits the geothermal brine of two flash power plants on Mindanao island to generate 3.6 MWe additional electricity*
- *Inauguration ceremony took place on April 27, led by EDC's Deputy Chief Operating Officer Jerome H. Cainglet, in the presence of Director Mario C. Marasigan of the Department of Energy's Electric Power Industry Management Bureau (EPIMB) and Government Authorities*

Oligate Olona, May 2th, 2022 – EXERGY INTERNATIONAL, an Italian leading provider of advanced geothermal ORC plants participated last week at the inauguration ceremony of EDC's first geothermal brine recovery power plant on Mindanao island, in the Philippines. The event was led by EDC Deputy Chief Operating Officer **Jerome H. Cainglet**, Head of Business Development **Marvin Kenneth S. Bailon**, and Mount Apo Geothermal Project Facility Head **Romy Kee**, in the presence of Director **Mario C. Marasigan** of the Department of Energy's Electric Power Industry Management Bureau (EPIMB), other government authorities, and representatives from EDC's Indigenous Peoples host community, the Manobo Apao Descendants Ancestral Domain Claim of Mount Apo (MADADMA).

The new ORC unit, started up in March, was designed and supplied by EXERGY in **less than 12 months** complying with strict deadlines and successfully passing the **performance test**. The plant also passed the **compliance testing** by the system operator, National Grid Corporation of the Philippines, and is now delivering 3.6 MWe additional power harnessing a resource from the Mindanao geothermal field.

The ORC cycle operates by recovering the waste geothermal brine available from Mindanao 1 and 2 existing steam power plants and converts it into electricity through a turbine before reinjecting into the reservoir. Exergy's technology utilizes the unique Radial Outflow Turbine configuration, a first in the Philippines, which can produce geothermal power at higher efficiency, and proved to be very effective and reliable in more than 450 MWe geothermal fleet installed worldwide.

EDC is the world's **largest vertically integrated 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 and an acknowledged leader in wet steam field technology for over four decades.



The new ORC installation will enhance the efficiency and productivity of the existing geothermal field and help save around 25,000 tons of CO₂ emission per year without any additional environmental impact.

While attending the inauguration ceremony **Marco Frassinetti**, Exergy's Sales Director commented:

"We are very proud of the successful completion of the first brine recovery power plant in the Philippines for EDC. This project demonstrates how pushing innovation, both in exploitation technologies and power plant design and technologies, can provide more sustainable and efficient solutions to better harness geothermal resources and improve the economics of geothermal projects. We see many opportunities of application for geothermal brine recovery considering a potential of more than 10 GW of flash steam turbine power plants installed worldwide"

"Thank you, Exergy and all our other partners, for being enablers of our decarbonization mission by helping us deliver our Mindanao-3 binary project after only 13 months," said **Jerome H. Cainglet**, EDC's Deputy Chief Operating Officer".

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/>

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