

PRESS RELEASE

FOR IMMEDIATE RELEASE

Turboden Contributes to Grid Independence for First Nation Community with Biomass Cogeneration Plant

Brescia, Italy, 31 July 2024 — Turboden S.p.A., a Mitsubishi Heavy Industries (MHI) Group Company and a worldwide leader in Organic Rankine Cycle (ORC) technology, proudly announces its crucial role in achieving grid independence for the remote community of Opitciwan in Canada. Through the use of a **4.8 MWe ORC biomass power plant**, Turboden is at the forefront of a groundbreaking Biomass Cogeneration Plant Project, supported by Hydro-Quebec and owned by the Conseil des Atikamekw Opitciwan.

The Opitciwan community, a proud First Nation, has long sought a sustainable and reliable energy solution to replace their outdated diesel generators. Turboden's state-of-the-art ORC technology offers the perfect answer, utilizing local wood residues such as bark and sawdust as primary fuel. This biomass is combusted in a thermal oil boiler, generating heat that is transferred via a closed thermal oil loop to the ORC turbogenerator, producing clean electricity for the community.

The ORC technology allows the community to be independent from the grid to produce electricity for local consumption but can generate excess electricity beyond its own consumption and sell it through PPA.

"This is our second project for the First Nation that confirm the reliability and efficiency of the technological solution offered by Turboden, not only to reduce greenhouse gas emissions but also to ensure a reliable power supply in a remote location and procurement costs saving for the community." Said **Paolo Bertuzzi, CEO and Managing Director of Turboden.**

Key highlights of the project include:

- **Remote Community Empowerment:** The Opitciwan community gains full control over their energy resources, achieving grid independence.
- **Environmental Sustainability:** The project significantly reduces greenhouse gas emissions by utilizing forest biomass.
- **Economic Benefits:** The community has secured a 25-year Power Purchase Agreement (PPA) with Hydro Quebec, with the possibility of a 15-year extension.
- **Social and Environmental Acceptability:** Supported by provincial and federal grants, the project meets stringent criteria for social and environmental responsibility.

The customer, SOCIÉTÉ EN COMMANDITE ONIMISKIW OPITCIWAN, recognized the need for a sustainable energy solution to replace their diesel generators. Turboden's ORC technology has not only met but exceeded these needs, providing a reliable and environmentally friendly power source.

This project sets a precedent for hundreds of remote First Nation communities in Canada seeking similar grid independence solutions offering both stability and environmental benefits by using local wood residues.

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About Turboden:

Founded in 1980, Turboden S.p.A. is an Italian firm and Mitsubishi Heavy Industries group company, providing global technological solutions for energy efficiency and the decarbonization of industries and utilities. It is a leader in the design, manufacture, and maintenance of Organic Rankine Cycle (ORC) systems, which are highly suitable for distributed generation. These systems generate electric and thermal power by harnessing multiple sources, including renewables such as biomass and geothermal energy, as well as waste heat from industrial processes, waste incinerators, engines, or gas turbines. Today, Turboden is expanding its technological solutions to include gas expanders and large heat pumps, enabling it to play a broader role in decarbonizing the district heating sector and energy-intensive industrial processes.