

PRESS RELEASE

Turboden Gas Expander Solution to Increase Energy Efficiency of Natural Gas Transmission and Distribution Networks

Italgas to introduce medium size gas expanders for Rome gas network

Brescia, 31 October 2019 - **Turboden**, a Mitsubishi Heavy Industries group company, is delighted to launch its latest energy efficiency solution for Italgas, Italy's leading and Europe's third largest gas distributor.

Italgas awarded Turboden the project for the installation of two 650 kWe gas expanders which will increase the energy efficiency of one of the main gas pressure reduction stations connecting the national gas pipeline network to the city of Rome. The gas expanders produce electricity by taking advantage of the reduction of gas pressure from the mainline transmission pipeline to that required by users, whether residential or industrial.

"We are very excited to offer our customers a further solution to increase their energy efficiency, in addition to our advanced ORC technology and industrial heat pumps which were introduced earlier this year. The project with Italgas confirms once again Turboden's continued drive to develop solutions that allow energy companies such as Italgas transition into a low-carbon future," Paolo Bertuzzi, CEO Turboden commented.

For over forty years, Turboden has been designing and developing plants for distributed power generation, based on ORC technology. Thanks to its experience in organic fluid turbines, Turboden has entered the world of gas expanders, offering an innovative solution in the medium/small size market segment (below 2 MWe) that had been unattended to date.

Gas expanders

A natural gas expander or turbo-expander consists of an expansion turbine through which the natural gas at high pressure is expanded to produce work, which is converted into electricity by a generator. Currently, the operating gas expanders range in size from about 50 kW to 15-20 MW, however, Turboden's offer is positioned in sizes between 150 kW and 2 MW. In classic gas pressure reduction stations that are based on lamination valves that dissipate the potential energy contained in the gas under pressure, gas expanders represent a solution to improve the energy efficiency of natural gas transmission and distribution networks.

Turboden S.p.A., a group company of Mitsubishi Heavy Industries, is an Italian firm that provides reliable and proven technological solutions for the enhancement of energy efficiency and for the valorization of renewable sources.

Since 1980, the company designs, manufactures and maintains Organic Rankine Cycle (ORC) systems, highly suitable for distributed generation, which produce electric and thermal power exploiting multiple sources. Thanks to its long experience in the energy efficiency sector, today Turboden expands its solutions with gas expanders and large heat pumps to contribute to the worldwide efforts to mitigate global warming by creating reliable and clean energy systems that are safe, cost-efficient and easy-to-use.

Turboden is now present in 45 countries with 390 plants. www.turboden.com