

Hitachi Zosen Inova Delivers Major Gas Upgrading Plant for Canadian RNG Project

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Hitachi Zosen Inova (HZI) has handed over its largest-ever membrane gas upgrading plant to StormFisher for a low-carbon renewable natural gas (RNG) injection project in Ontario, Canada.

StormFisher has partnered with Enbridge Gas to inject the RNG into its natural gas distribution system in Ontario.

The system utilises food waste from the city of London in the southern part of the province. A local waste treatment plant has been producing biogas from organic waste for years, to generate electricity in a combined heat and power (CHP) unit. Now, using upgrading technology supplied by HZI BioMethan, HZI's German subsidiary, the biogas will also be upgraded to produce biomethane.



At the facility, the biomethane is produced via membrane-based gas permeation: under pressure, the biogas is introduced into modules containing hollow fibre membranes made of high-performance polymers. In the modules, the CO₂ contained in the biogas is removed from the methane, which is extracted at the end of the process and forwarded to a feed-in station to be injected in the local gas grid.

This is the first gas upgrading plant in Canada to use this process. It enables upgrading capacities of 360-1,200 Nm³/h of raw biogas.

StormFisher intends to successively increase the volumes of waste accepted, so more biogas can gradually be fed into the upgrading system. For this reason, the flexibility to process varying raw gas feed capacities was a key factor in awarding the contract – the HZI plant covers a range of 30-100% feed capacity.