

# BELGIAN GREENHOUSE STAYS ALWAYS ON WITH COGENERATION SOLUTION PROVIDING OVER 100% RETURN



**WHERE:**

Varegro, Oostrozebeke, Belgium

**SUPPLY:**

C2000N5CD 2MW HSK78G gas generator set

**PURPOSE:**

To provide thermal and electrical energy by recovering CO<sub>2</sub> for a greenhouse



# CUMMINS GENERATOR PROVIDES HIGH EFFICIENCY AND FLEXIBLE ENERGY TO CREATE SIGNIFICANT COST SAVINGS

Varegro is a horticultural company based in the small Belgian town of Oostrozebeke. Specializing in harvesting a wide range of crops for over 40 years, recently the company has grown to become one of the largest exporters in Belgium with premises totaling 40,000m<sup>2</sup>. The company benefits from the cogeneration solution and decided to replace the existing generator installation with the C2000N5CD to support additional power requirements, marking the world's first HSK78G installation within a greenhouse environment. Varegro chose Cummins based on factors such as reliability, service, efficiency and cost savings.

“Ten years ago, fuel oil was expensive. We used oil for heating, but it was expensive to grow tomatoes all year round. It was not profitable in the winter, so we had to look for an alternative. We switched to cogeneration because of the CO<sub>2</sub> recuperation. It produces heat and electricity, which we can use in our business,” said Carlo Van Hove, Owner of Varegro.

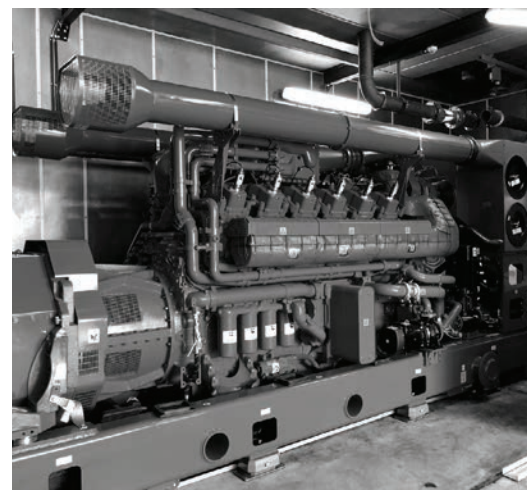
“Cummins provided a custom-made gas solution to offer maximum efficiency with the greatest possible cost savings to the customer,” said Stefan DeWit, Project Manager at Cummins.

The HSK78G offers 2MW and an electrical efficiency of 44.2%, which leads to greater fuel savings by turning waste heat into productive energy; in this application, its total return is greater than 100%, achieving a total efficiency of 103%. Varegro can use this reliable power source to flexibly meet their own energy needs, which include lighting, CO<sub>2</sub> and hot water.

The HSK78G's heat buffer allows Varegro to influence the variable energy market and support the grid network. The generator is self-managed, which implies it has a higher tolerance towards variable natural gas fuel qualities and resistance to any external environmental factor. As a result, the benefits of cogeneration were even greater for Varegro, providing higher efficiency.

The surplus of the electricity being produced is sold back to the grid network, offering greater financial savings for the company. The exhaust gas has been measured frequently to ensure the generator's service life is longer.

Cummins is responsible for delivering the project's full maintenance, which is critical for the longevity of the generator installation. Due to highly qualified technicians and specialists working 24 hours a day, seven days a week, the installation runs continuously with limited downtime, further increasing total profitability.



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