



# 11 MWe COMBINED HEAT AND POWER FOOD PROCESSING INDUSTRY

OWNER  
**Cargill B.V.**

LOCATION  
**Sas Van Gent, The Netherlands**

PRODUCT  
**Mars 100 Gas Turbine**

CUSTOMER VALUE  
**Environmental Compliance  
Increased Performance**

Cargill provides food, agriculture, financial and industrial products and services to the world. Because their processes require heavy energy use and steam for process heat, the company operates many combined heat and power (CHP) plants at their manufacturing facilities around the globe. The company was researching the best solution for replacing their existing CHP facility at their plant in Sas Van Gent, where starch and starch derivatives are produced. Cargill wanted to replace the aged gas turbine with highly efficient state of the art equipment. The existing CHP plant consisted of a aero-derivative gas turbine generator that was installed in 1983, with a waste heat recovery system that was no longer compliant with NOx emissions regulations. The system was inefficient and, in order to meet the emissions requirements, Cargill was forced to operate the unit at 60% load, resulting in high operating costs. Cargill turned to Solar Turbines for help.

**Solar Turbines**  
A Caterpillar Company

## 11 MWe COMBINED HEAT AND POWER PLANT



### PLANT DATA

Mars 100 Industrial Gas Turbine

100% Load Operation

Exhaust Flow Similar to Existing Gas Turbine

Heat Recovery Steam Generator



### OUR PRODUCTS & SERVICES

Gas Turbine Package and Auxiliary Supply

Integration into Existing Plant and HRSG

Installation and Commissioning

Long Term Service Agreement

**EMISSIONS REDUCTION**

**IMPROVED EFFICIENCY**

**QUICK RETURN ON  
INVESTMENT**

Solar was able to integrate the highly efficient 11 MW Mars® 100 gas turbine generator set into the system configuration, thereby reducing the investment cost by utilizing the heat recovery steam generator (HRSG) that was already in place. The new CHP plant enables Cargill to improve efficiency, reduce emissions, and reduce the overall operating costs of the electricity and steam needed to produce their product.

Solar Turbines has extensive experience in plant engineering for new and replacement installations and offers extended support services to allow customers to extend the life of their equipment, while reducing their environmental footprint, increasing overall plant efficiency and improving fuel utilization. To find out how a gas turbine solution from Solar can greatly improve the profitability of your plant operations, give us a call.

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