DEN BERK DÉLICE

Fueling greenhouse operations with combined heat and power

Meeting Belgium's goal of transitioning to 100% renewables by 2050 requires a stronger focus on power flexibility. At Den Berk Délice's greenhouses in Belgium, small distributed power plants are enabling that flexibility using Jenbacher energy solutions and greenhouse balance-of-plant equipment.

Through multi-year service agreements, the Jenbacher engines also are connected to INNIO's myPlant Asset Performance Management (APM) platform for enhanced reliability, productivity, and performance.

The high-efficiency Jenbacher engines use pipeline gas to provide heat and power to Den Berk's greenhouse complex and carbon dioxide (CO_2) to fertilize the tomatoes. The result of continuous enhancements and extensive experience, INNIO's Jenbacher 1,500-rpm Type 6 engine technology delivers high power density with low installation costs, and its pre-combustion chamber achieves high efficiency with low emissions.

About Den Berk Délice

With 82 hectares of tomato cultivation, Den Berk Délice is an exceptionally reliable, full-service specialist dedicated to growing, marketing, and innovating delicious, top-quality tomatoes. The company strives to build effective long-term relationships with its suppliers and has made extensive use of Jenbacher technology in pursuit of its mission to let its customers enjoy tomatoes 365 days a year.

»For more than a decade, we have been relying on Jenbacher solutions and services to power our multiple greenhouses. Our longstanding relationship with INNIO continues to grow, and we rely on its proven technology and deep domain expertise. The Jenbacher systems provide a bridge to renewable energy and are helping us do our part to help meet Belgium's renewable energy goals.«

Luc Beirinckx, owner, Den Berk Délice

PLANT FACTS: BERKENRIJS

Engines	2 x J624 (24.55 bmep)
Energy source	Pipeline gas
Electrical output	9,004 kW
Thermal output	11,220 kW
Total efficiency	103.3% (46.0% electricity, 57.3% heat)
Year of commissioning	2021

PLANT FACTS: BENTELTOM

Engines	1 x J612, 1 x J616
Energy source	Pipeline gas
Electrical output	4,684 kW
Thermal output	5,748 kW
Total efficiency	93.8% (44.8% electricity, 49% heat)
Year of commissioning	2010, 2020

PLANT FACTS: DEN HORST

Engines	2 x J624 (24.55 bmep)
Energy source	Pipeline gas
Electrical output	8,994 kW
Thermal output	10,702 kW
Total efficiency	102.6% (46.8% electricity, 55.8% heat)
Year of commissioning	2018, 2022

PLANT FACTS: BEIRINCKX

Engines	1 x J612, 2 x J624
Energy source	Pipeline gas
Electrical output	10,995 kW
Thermal output	12,832 kW
Total efficiency	101.7% (45.8% electricity, 55.9% heat)
Year of commissioning	2013, 2018, 2022

PLANT FACTS: DEN BERK

Engines	6 x J416, 2 x J624 (24.55 bmep)
Energy source	Pipeline gas
Electrical output	16,482 kW
Thermal output	20,948 kW
Total efficiency	102.3% (44.5% electricity, 57.8% heat)
Year of commissioning	2017, 2022

PLANT FACTS: LAUWERYSEN

Engines	1 x J616, 1 x J624
Energy source	Pipeline gas
Electrical output	7,175 kW
Thermal output	8,942 kW
Total efficiency	103.5% (45.9% electricity, 57.2% heat)
Year of commissioning	2015, 2022

PLANT FACTS: SALMMEIR

Engines	2 x J624 (24.55 bmep)
Energy source	Pipeline gas
Electrical output	8,994 kW
Thermal output	10,886 kW
Total efficiency	102.6% (46.8% electricity, 55.8% heat)
Year of commissioning	2017, 2022

PLANT FACTS: TRUYENBERG

Engines	2 x J612, 3 x J416
Energy source	Pipeline gas
Electrical output	7,617 kW
Thermal output	9,744 kW
Total efficiency	101.0% (44.1% electricity, 56.9% heat)
Year of commissioning	2016

PLANT FACTS: VROUWKENSBLOK

Engines	2 x J624 (24.55 bmep)
Energy source	Pipeline gas
Electrical output	9,004 kW
Thermal output	11,220 kW
Total efficiency	103.3% (46.0% electricity, 57.3% heat)
Year of commissioning	2022