FIRST B36:45L6 GAS ENGINES IN OPERATION

The new B36:45 gas series set a new standard in power and efficiency with exceptionally low emissions of NOx, CO₂, SOx, particulates, and fuel consumption.

Building a new green house in Belgium, the tomato producer Tuinbouwbedrijf Marc Pittoors (T.B.M.P) BVBA opted for the newest technology in the market to support its core operations. The 7 MWe combined heat and power plant is based on two of the new gas-fired gensets of Rolls-Royce, the six-cylinder B36:45.

At 600 KW per cylinder, the new B36:45 engines offer a 20 per cent increase in power compared to existing engines in the Rolls-Royce medium speed range. It set a new standard in power and efficiency with exceptionally low emissions of NOx, CO₂, SOx, particulates, and fuel consumption. The engines are produced at Bergen Engines AS, which is part of Rolls-Royce Power Systems.
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T.B.M.P uses the generated electricity to power the greenhouse artificial lighting and the heat extracted from exhaust gases and engine cooling systems to heat up the facility. In addition, cleaned engine exhaust gases is injected into the greenhouse to increase the level of CO2 and boost plant growth.

Marc Pittoors, CEO of T.B.M.P said: “For our tomato producing company, three factors were crucial in taking this decision: best electrical efficiency in the market, Rolls-Royce’s expertise with gas engines since the early 90’s being a pioneer in lean-burn technology, and optimum heat balance.”

Rolls-Royce has supplied the complete CHP for the T.B.M.P greenhouse, consisting of the power generator sets, the exhaust gas systems including a selective catalytic reduction (SCR) system and heat exchangers, and the electronic control system. In total, the technology achieves efficiency rates of more than 96%.

The contract includes a service agreement for 10 years.