



“ Our old generating equipment was replaced with more efficient units. New power plant technology is used to meet increased demand for electricity. Gas-engine technology allows us to reduce our carbon footprint by more than 40%.”

Henri Loubser, Managing Director, SNE

IT ALWAYS SEEMS IMPOSSIBLE UNTIL IT'S DONE

NELSON MANDELA

175 MW of new installed power, one million ton cut in yearly carbon emissions, high energy efficiency and flexibility, fast-track turnkey delivery including the possibility for future expansions and compliancy with one of the world's strictest Health, Safety and Environmental regulations at all times. All of this in the challenging location of Sasolburg, South Africa, 1700 meters above sea level.

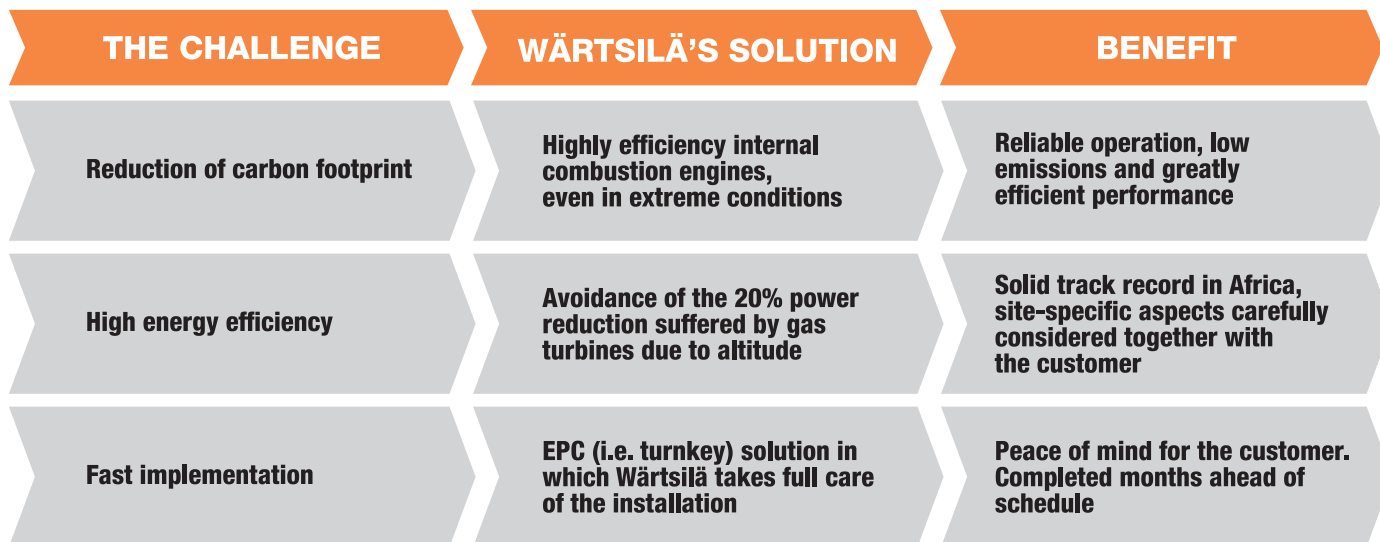
This was Sasol New Energy (SNE)'s wish list for Christmas 2012. Impossible? Not when relying on Wärtsilä capabilities and expertise. Actually, that year Christmas came early for SNE, since the landmark project was completed on 14 December 2012, 9 days ahead of schedule, within budget.

Today, SNE, a business division of the global energy and chemical company Sasol, owns the largest power plant on the African continent running exclusively on gas combustion engines – the first of its kind ever in the Republic of South

Africa. In such a complex environment – especially for turnkey deliveries – building a power plant is no easy task. Only a proud innovator with a proven track record, like Wärtsilä, is up to the level of commitment and professionalism that the job requires. This became a decisive factor in the awarding of the contract, since it provided SNE with the peace of mind it was looking for.

Eighteen Wärtsilä 34SG gas engines make the magic happen at Sasolburg. The facility was built to meet SNE's increased electricity needs while, at the same time, replacing old generating equipment with new and more efficient technol- ■ ■ ■





ogy. Whereas in the past SNE had opted for gas turbines for its industrial self-generation, this time turbo-charged combustion engine technology was the choice. And there were powerful reasons behind it: at 1700 meters, gas turbines reduce their output power by some 20%, whereas Wärtsilä's engines can both run at full throttle and quickly adjust to frequent variations in the power demand. Challenging conditions are just another day at the office for these super-efficient "thirtyfours".

The Sasolburg plant was built on an EPC (i.e. engineering, procurement and construction)

As we understand it, only a deep mutual understanding of a project can lead to the best results.

basis by Wärtsilä, who supplied the engineering, equipment and civil works, and carried out the construction of the plant. The tightly woven cooperation between SNE and Wärtsilä translated into very high standards in terms of quality, documentation, safety and execution. As we

understand it, only a deep mutual understanding of a project can lead to the best results. In May 2012 Wärtsilä was also awarded a three-year Operation & Maintenance (O&M) agreement by which it will operate the plant on SNE's behalf, to ensure that the design output is delivered with maximum efficiency. Full trust leads to full power.

The world-class joint effort between Wärtsilä and SNE led to great results and a promising new horizon of sustainable, environmentally sound growth for Sasol's South African business.



The Sasolburg power plant in South Africa.



MAIN DATA

Customer	SNE (IPP)
Type	Wärtsilä 34 gas power plant
Operating mode	Flexible baseload
Gensets	18 x Wärtsilä 20V34SG
Total output	175 MW
Fuel	Natural gas
Scope	EPC (Engineering, Procurement & Construction)
Delivered	2012