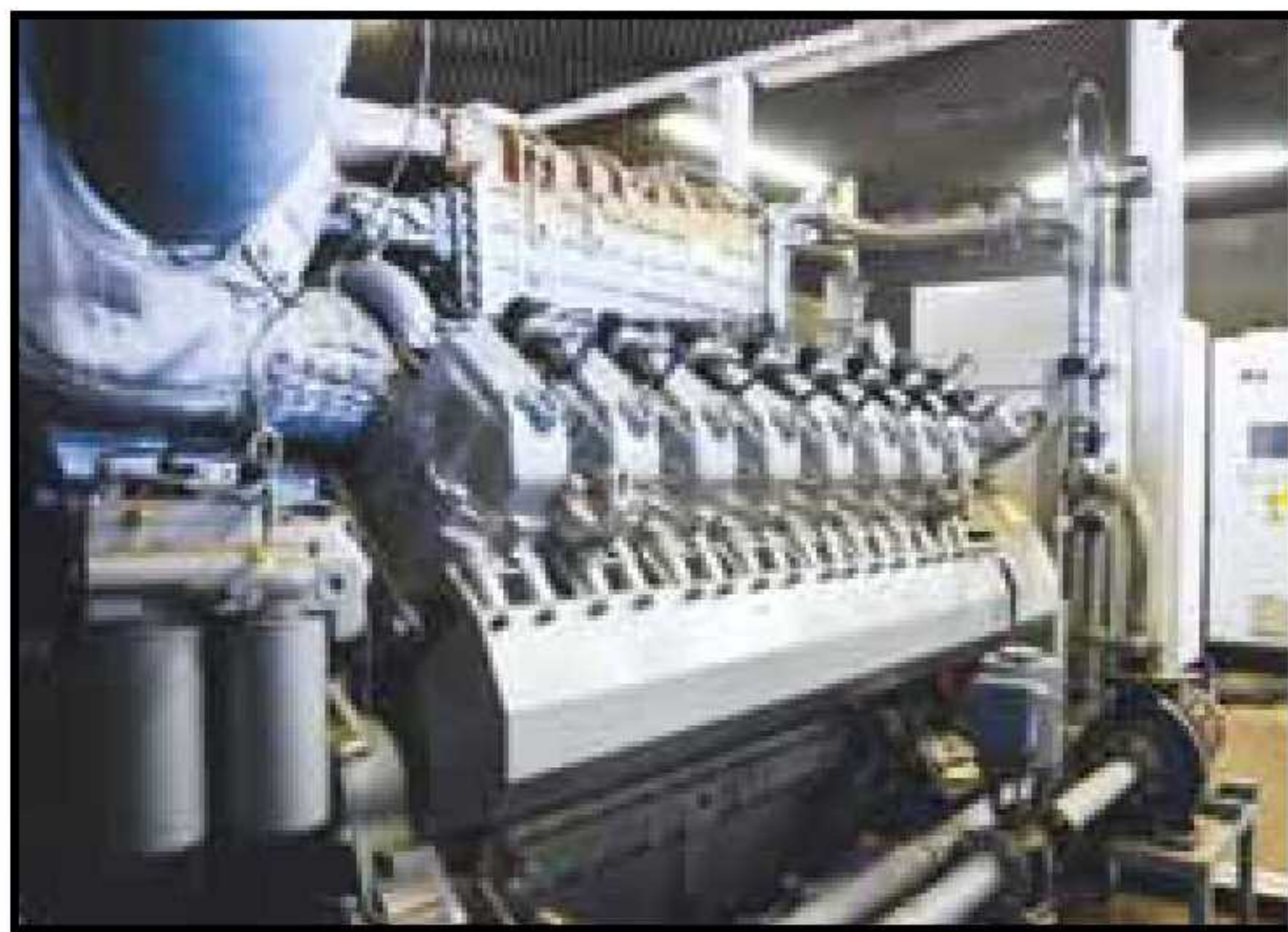


# Beating the blackout blues with natural gas



installing will operate 24/7 as base load units.

Master Power is able to offer customers gas generator systems ranging from 15kW up to 50MW (while meeting higher demand through multiple set configurations) for base load operations. Due to the abundance of dry (90%) methane gas in Africa and the surrounding

**C**OMMUNICATIONS giant MTN has embarked on a project to ensure its operations are impervious to the variations of municipal electricity supply with a ground breaking natural gas project. Master Power Technologies has been tasked with the implementation and maintenance of the gas power project.

Dave Warren, senior sales engineer at Master Power Technologies explains that the larger MTN office blocks, switches and exchanges consume large amounts of municipal power for lighting, heating, and ventilation and transmission equipment. However, in Gauteng and other major centres, Egoli and Reatile gas have natural methane gas available via the Sasol line from Mozambique. This gas is available for commerce and industry use.

Tri-generation, which utilizes gas to produce electricity and utilizes the engine waste heat to either generate hot water or take the hot water through a heat absorption process to produce chilled water are employed to reduce the running cost significantly.

“The major benefit of moving to gas as a utility is that MTN will be able to run independently of Municipal power and will therefore not be affected by rolling black outs and load shedding in future.”

Once up and running, the gas generator sets Master Power is

oceans, Master Power presently focuses on products that burn this composition most efficiently.

Traditionally, gas power generation solutions convert only about 40% of the energy in the gas source to electrical power, the remaining energy is lost as wasted heat. However, heat recovery systems can be fitted that will provide heating and ventilation without using any of South Africa’s scarce, and now expensive municipal power supplies.

The systems Master Power is installing for their customers are based on designs and installations as found in Europe and many western world countries. Gas is abundant and office or industrial heating is essential in the daily work place. In the African context, the heating need becomes a cooling requirement and chiller plants take the place of heating units.

“MTN is in the fortunate situation that by increasing its power generating efficiency from 40% to about 90% by recovering heat from the generator. MTN will therefore be able to reduce the cents/kW/hour by over 50%. The complete Tri-generation package delivers cheaper power than supplied by the local Municipality”

Two major MTN sites were converted to gas and were operational as from December 2014, while the waste heat recovery is due to come online in September 2015. More sites will be converted during the course of 2015.

*Enquiry No: 17*