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Prime Power

Case History

The Ambatovy Project

Where:

Nickel-Cobalt mining and processing plant,
Madagascar

What:

30 x 1000 kW Cummins Power Generation
C1250 D2R generator sets using
KTA50-G3 engines and STAMFORD P7
alternators

Purpose:

Providing much needed extra power to
the site

Madagascar super-mine project calls in Cummins

The largest capital project in the history of Madagascar, the Ambatovy Project, has purchased 30 Cummins Power Generation generator sets to help meet its requirement for prime power. The combined mine and processing project has the potential to be a huge boost to the country's economy. When it began to face problems with its prime power provision, it was vital to find a solution.

Cummins South Africa, Power Generation was chosen for the work and has provided 30 Cummins Power Generation C1250 D2R generator sets using KTA50-G3 engines and STAMFORD P7 alternators. The total order, valued at US\$15 million, was installed at the site and began providing the much needed extra power by late November 2011.



30 x 1000 kW C1250 D2R generator sets provide prime power



The rental-spec generator sets suit the harsh conditions

The Ambatovy Project is a large-tonnage nickel and cobalt project with annual production capacity estimated at 60,000 tons of nickel, 5,600 tons of cobalt and approximately 190,000 tons of ammonium sulphate. The project has an estimated project life of 27 years, and is positioned to be the world's biggest lateritic nickel mine by 2013. It represents the country's largest capital spend to date.

Canadian mining company Sherritt International Corporation holds the largest interest in the site with 40%, followed by Japan's Sumitomo Corporation and Korea's state-owned resource development corporation KORES with a 27.5% interest each. Ambatovy is also receiving full support from the Madagascar government. The project obtained the necessary environmental permits from the government in 2006. In 2007, the project received eligibility certification under Madagascar's Large-scale Mining Investment Act which ensures tax and legal stability through the life of the project.

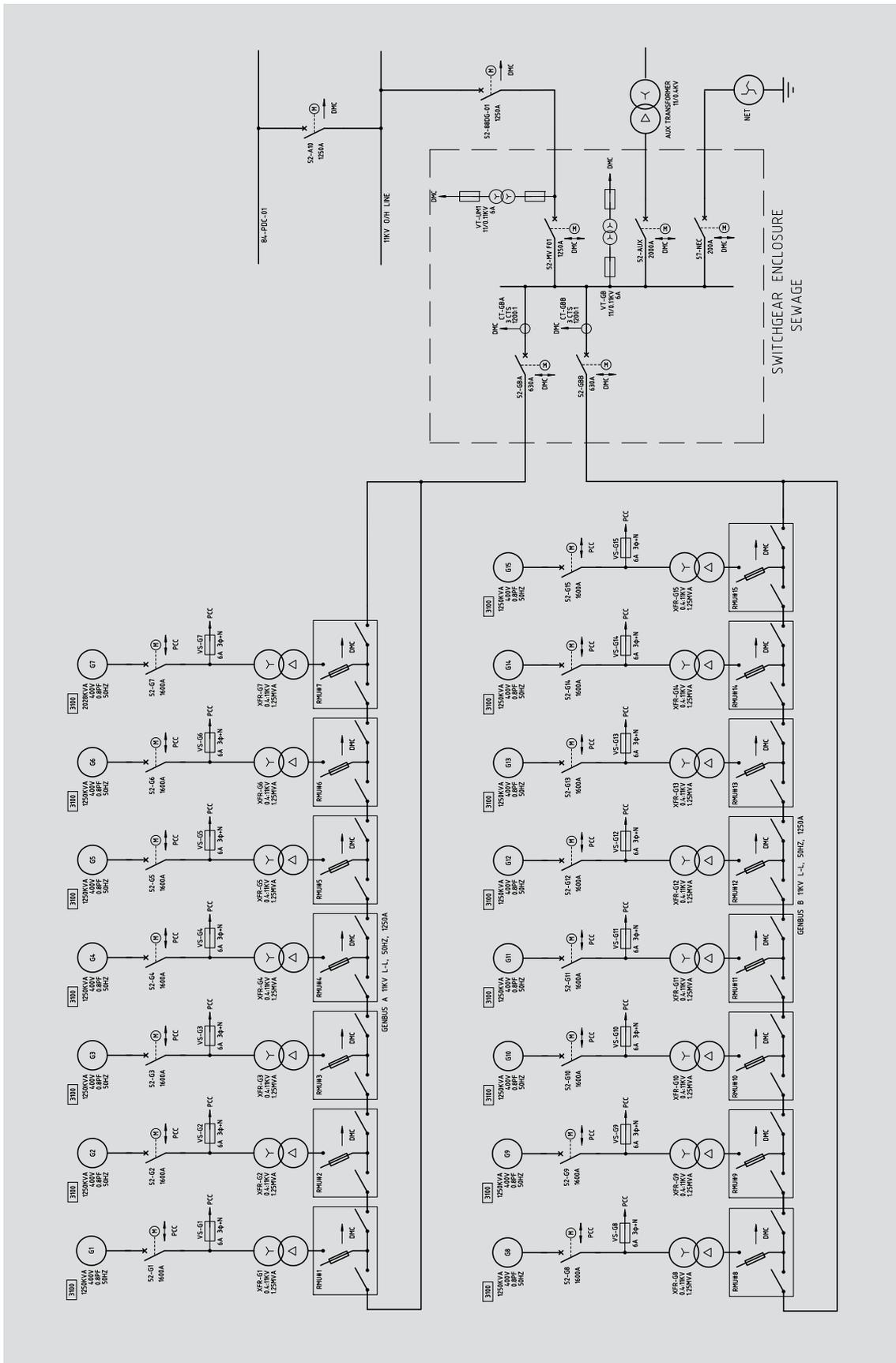
The 1000 kW C1250 D2R generator sets provide 30 MW of power and can run 24/7, synchronising with the local grid, existing Cummins generators and turbines for load management. They operate from two plants, each supplying 15 MW, comprising 15 x C1250 D2R units for prime power, 15 x 0.4 kV/11 kV step-up transformers, two 20ft containerised MV cells including DMC300s and MV switchgear, and two 68,000 litre self-bunded bulk fuel tanks.

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The customer initially considered renting the required equipment, but saw the value in purchasing the KTA50-G3 powered, rental-spec generator sets thanks to their durability and reputation for operating in harsh conditions. Cummins support, service and its commitment to delivering and setting up in a short time frame were also key factors in the decision.

More than 200 public hearings were held to examine the project's social and environmental issues, which led to the adoption of environmental conservation models based on World Bank guidelines. The project is contributing greatly to the local economy. Around 12,000 workers were hired directly and indirectly during the construction phase. A local development programme provides a human resources registration centre with occupational and technical training programmes for small to medium sized local companies.

For more information about integrated prime power systems, contact your local Cummins Power Generation distributor or visit www.cumminspower.com



A single line drawing of the prime power system



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