



FIJI POWER SERVICES

Developer: Fiji Power Services

Location: Kinoya, Fiji Islands

Installed: November 2005

Hydro projects are the primary source of electric power in the Fiji Islands. In times when rainfall is insufficient, power to the grid is supplied via backup power plants running on diesel fuel. The cost of generating electricity using older engines, is higher than the cost of running a modern power plant.

To meet the increasing demand for electricity the government of Fiji has been developing additional hydro projects, which has led to the need for additional backup generation.

The existing backup power plant in Kinoya does not have the capacity, efficiency or reliability to accommodate the increase in generation that is required. The government of Fiji decided to meet this need by installing a new power plant to strengthen backup capability to the power grid.

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The main project requirement of the Kinoya plant is a flexible fuel power plant capable of delivering secure, reliable, efficient, low-cost electricity that will meet current and projected demand.

Caterpillar provided a power solution that met and exceeded this project criteria. The turnkey power plant consists of four (4) Cat® 16CM32 generator sets, manufactured by Caterpillar Motoren GmbH & Co. KG, in Kiel, Germany. The generator sets are equipped with state-of-the-art self-diagnostic management systems, providing pro-active information to the maintenance staff. In addition, they can be remotely operated and monitored from the control room.

The Cat generator sets incorporate the best technology and fuel consumption in a long-life design that facilitates maintenance, resulting in lower plant operating costs. Caterpillar also provided comprehensive services, including project management, system design and engineering of the plant, construction, commissioning and supporting balance of plant equipment.

The Kinoya plant is capable of supplying approximately 26% of Viti Levu's grid power at a higher level of efficiency and reliability than the existing backup plant. It is also capable of running on biofuels, meeting the renewable energy goals of the Fiji government.

Caterpillar's global resources, which include a network of world-class dealers, manufacturers and suppliers, played a significant role in both the procurement of equipment and the construction of the facility, resulting in the plant being completed in only eight months.

Caterpillar's reliability, quality and efficiency of the 16CM32 generator sets along with due diligence, exceeded the government of Fiji's criteria for the turnkey power plant.

Caterpillar Power Generation Systems provides total solutions for your business. We have the equipment, services, knowledge and experience to help meet your 1-100 MW power needs.

For additional information visit our website: www.cat.com/powerplants or email us at: cat-powerplants@cat.com.

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