

Baseload power for the Dominican Republic

Domicem, a large cement factory located near the village of Sabana Grande de Palenque in the Dominican Republic, has selected Wärtsilä for a baseload power plant to supply electricity for its quarry and process operations.

Wärtsilä will supply four Wärtsilä 18V32LN generating sets for the project, producing a total of more than 25 MW. In addition to the Engineering, Procurement and Construction (EPC) contract, Domicem has also signed a contract with Wärtsilä to provide all necessary services for operating and maintaining the power plant during the first five years of operation.

“We are very pleased to provide Domicem with a power plant that meets their requirements for reliability and low fuel consumption,” said Mr. Frank Donnelly, vice president of Wärtsilä North America Inc., Power Plants. “This contract also highlights the integration of Wärtsilä’s power plant and after-sales service businesses to provide the customer with a lifecycle project that fulfills their need for a reliable source of power.”

Wärtsilä’s power plant delivery will be part of a project which calls for the design, construction and operation of a new dry process cement plant of 800,000 tons per year (tpy) clinker capacity and 900,000 tpy cement capacity in the Dominican Republic. The Domicem plant is expected to be commissioned by May 2005. The plant’s limestone quarries are located in Sabana Grande de Palenque, a rural farming village with a population of less than 3,500. This plant will be the most modern of its kind in the Caribbean, supplying one third of the island’s cement consumption.

“Wärtsilä had the most extensive experience and the best references in the cement industry and in the Dominican Republic because they have shown that they are dedicated to serving customers in this region,” said Mr. Pasquale Colaiaicovo, Chairman of Domicem. “We were impressed with the fact that they have a local service office and their willingness to stand behind their products with their service business.”

After commissioning of this project, Wärtsilä’s baseload power plants in the Dominican Republic will total 638 MW, with the cement industry accounting for 63.8 MW of this figure. Wärtsilä has delivered 126 MW of power for various self-generating industries in the country. Wärtsilä is the market leader in power generation for the cement industry with worldwide references totalling more than 1200 MW. ■



by Dan Russell,
Bayfront Consulting, LLC

(WOIS) for instantaneous control, and the Wärtsilä Information System Environment (WISE) for storing, retrieving and reporting information, which enables reliable and flexible operation with a minimum of personnel. Remote operation and monitoring by broadband networks are also installed and supported.

Power shortage risk minimized

The Borough has successfully applied this Dispersed Power Generation model in the Pennsylvania power auction environment, providing residential customers with a 13% reduction in their annual utility bills and commercial clients with a 15% reduction.

This is big news because other nearby municipalities and cities are seeing their rates increase by at least the same amount. The Borough is able to sell power generation at rates up to \$500/MWh during times of high wholesale prices, high power demand and power congestion. The larger local utility (The Allegheny/Potomac Electric Company) offers a buyback plan, which pays customers to voluntarily run onsite generation (3 MW minimum) during these periods.

The overall management of the grid and power distribution in this region, however, is in the hands of PJM. PJM Interconnection is an Independent System Operator (ISO) and a regional transmission organization (RTO) that manages the movement of wholesale electricity in eight states and throughout Washington DC. They operate and manage the world’s largest competitive wholesale electricity market and centrally dispatched control area.

The dual-fuel feature of the Wärtsilä 32DF provides the flexibility to operate on either diesel fuel oil or natural gas and therefore the ability to choose the more cost-effective alternative as conditions dictate. The dual-fuel capability also increases the power plant’s power generation reliability.

With its Wärtsilä Dispersed Generation and peaking plant, the Borough of Chambersburg enjoys a high level of service and low electrical service rates. At the same time the multi-unit design of the power plant reduces the Borough’s risk of power shortages. ■