



Media Release

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VFD technology replaces inefficient start/stop pump control system to ensure clean water supply

Replacing an inefficient start-stop transformer-based control with a variable frequency drive (VFD) on a high-powered water pump has produced 36 per cent savings in energy costs within weeks of installation.

As a result, the Invertek Drives [Optidrive P2 VFD](#) has also significantly cut pump downtime and maintenance costs.

ENACAL, the government-owned Nicaraguan Company of Aqueducts and Sewers, provides potable and wastewater services to communities throughout Nicaragua in Latin America.

The water is pumped from wells and stored in reservoirs within local communities in the country, such as at Las Brisas, a residential area in Managua, the capital of Nicaragua.

Working with Electricas BC, a sales partner of Invertek Drives, ENACAL engineers replaced the old pump system in one well with an Optidrive P2.

“The stop/start transformer meant the pump was working at full power regardless of the demand for water,” said Marcus Silva, Invertek Drives Country Manager for Latin America.

“This placed constant pressure on the pump and having no soft start/stop resulted in increased damage to it and the pipe system at start-up, with the well having to be taken offline regularly for maintenance.

“The installation of the Optidrive VFD has provided greater control over pumping conditions, such as when demand for water is lower. This reduces energy use and results in less maintenance costs and downtime. The client has already reported energy savings of 36 per cent which will provide a return on investment in a very short time.”

The P2 Optidrive Size 7 IP55 with 460V 200HP was used for the application with the addition of a panel mounted remote keypad to allow easy control of the VFD parameters without opening the cabinet.

Cristhian Carrillo of Electricas BC said: “The potential savings in energy and maintenance costs by introducing efficient VFD technology is significant. Energy savings of between 20% to 50% are achievable in most cases.”

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Notes to the Editor

Invertek Drives

Invertek Drives Ltd is dedicated to the design and manufacturing of electronic variable frequency drives for controlling electric motors.

The state-of-the-art UK headquarters, located at Welshpool, Powys, UK, houses specialist facilities for research and development, manufacturing and global marketing. All operations, including research and development, are accredited to the exacting customer focused ISO 9001:2008 quality standard whilst its Environmental Management System is accredited to the ISO 14001:2004 quality standard.

In 2019 a new 5,500 sq. metre global manufacturing and distribution facility was opened at the headquarters, allowing production of up to 400,000 VFDs a year.

Invertek's products are sold globally by a network of specialist distributors in over 80 different countries. Invertek Drives unique and innovative Optidrive range is designed for ease of use and meets with recognised international design standards for CE (Europe), UL (USA) and CTick (Australia). More details can be found by visiting www.invertekdrives.com.