

BEIJING CITY GAS GROUP TRUST THE KINGFISHER RTU



BACKGROUND

Global oil demand is predicted to increase sharply in 2023, according to March 2023's Oil Market Report (OMR) published by the International Energy Agency (IEA). The accelerating demand places a greater onus on oil and gas network operators to deliver oil and gas consistently — and to ensure pipelines operate safely and without failures.

Beijing Gas Group is the largest urban gas enterprise in China. By the end of 2016, their natural gas pipeline network reached over 20,000 kilometres, supplying 18 billion cubic meters per annum to over 5.89 million customers.

Beijing Gas Group is ranked as the second largest gas distribution network in the world. The customers of Beijing Gas Group use the natural gas for industrial processes, heating, refrigeration, power generation and gas powered vehicles.

Globally the IEA predicts that world oil demand will skyrocket from 710,000 barrels per day (kb/d) in Q1 2023, to 2.6 million barrels per day by Q4. This demand will be driven by "rebounding air traffic and the release of pent-up Chinese demand."

PROJECT OVERVIEW

The 20,000 kilometre pipeline network is managed from the Production Dispatching Command System.

This system includes SCADA for both transmission and distribution networks, a pipeline simulation system, consumption forecasting system and a geographic information system. To allow 100% uptime, these systems are duplicated between the Master Control Centre (MCC) and the Emergency Control Centre. The pipeline network can be controlled from either control centre.



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OIL & GAS



MONITORING
& CONTROL



RTU'S



SOLUTION

The initial project included DDN lines to around 60 high pressure regulating stations. This has grown to over 200 stations, now utilising fibre-optic cables, with wireless communication as a backup channel. The protocol used to communicate with the RTU's mounted in the field, is DNP 3.0.

As these sites grow, Beijing Gas Group's operators must ensure consistent control and management, as well as remote and local visibility over system status. That's why Beijing Gas Group turned to Ovarro's partner in China, the local systems integrator ZKCiT, which supplied 381 Kingfisher RTUs from Ovarro over ten years.

Beijing Gas Group is continuing to utilise and trust the Kingfisher product family for on-going system expansion and technology upgrades.



"Kingfisher RTUs provide a highly resilient, powerful and secure modular automation platform for critical and demanding SCADA applications which is evident by the trust that Beijing City Gas Group have in this technology"

Craig Abbott, Sales Manager, Asia, Ovarro



KEY DELIVERABLES

- An improved control and management capability
- Improved redundancy
- Improved situational awareness
- Multi-protocol communications
- Remote or local visibility of the systems status
- High-level cyber security tools

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