aggreko

Converting field gas to power

CUSTOMER
OMV Petrom

LOCATION
Romania

SECTOR
Oil and Gas

KEY FACTS

16
Remote locations

40 Degrees
Maximum temperature

-20 Degrees
Minimum temperature

40 MW
Total installed power capacity

THE CHALLENGE

Utilise field gas for power in challenging conditions

OMV Petrom is the largest oil and gas group in South-Eastern Europe. During the oil extraction process, associated petroleum gas is also produced, which is often seen as a waste by-product. Faced with tightening local restrictions on flaring this gas, OMV saw an opportunity to improve their carbon footprint by minimising gas emissions, and to better exploit available energy sources.

With harsh Romanian winters and warm summers, operating conditions would present a challenge, with temperatures varying from -20°C to +40°C.

Could the associated petroleum gas be converted to power and monetised? Would the remote location and inhospitable range of temperature prove too extreme?

OMV Petrom turned to us to find an answer.

Our core business is oil and gas, not power generation. Aggreko was ready to do more for us than normal power rental solutions providers and stepped in for this non-core activity for OMV Petrom, sustaining it on our behalf.

The three key benefits we get from working with Aggreko are their flexibility to cover the scope of work and services, fast delivery of the equipment, and the operations and maintenance of the services they provide to a high standard.

Nicusor Nacu, PhD
Department Manager of Energy Efficiency Program Projects & Engineering, Development Business Unit – OMV Petrom S.A.

THE SOLUTION

Gas to power at 16 remote oilfield locations

Instead of opting for costly new installations to treat and transport the gas, we offered an approach using a gas treatment skid to treat the gas, making it usable as fuel in our gas generator engines to produce electricity. This was then sold and fed directly into the national power grid.

Feeding direct to the grid comes with high restrictions and complex project implementation. Our full turn-key package means we assume full responsibility for permissions, construction, implementing gas and electrical connections, engineering, operating and high quality maintenance, and health and safety of the power facility on a long term basis.

Initially deployed and tested at one site in 2009, our mobile, modular equipment, flexible approach, exceptional service and ability to maintain reliable power to the site proved to be more than a match for the remote location and extreme temperatures. So much so, that it was deployed to a further 11 sites within the first two years of the initial contract and at its peak of the contract in 2016, it was deployed at 16 sites in total, with a total capacity of 40 MW.

THE AGGREKO DIFFERENCE

We have a flare for power

THE IMPACT

Reduce operating costs, carbon footprint and increase revenue

We helped OMV Petrom avoid restrictions associated with gas flaring and emissions, reducing their carbon footprint and environmental impact, while simultaneously generating revenue from what was essentially treated as waste gas.

While most of the power generated is sold back to the grid, they utilise some of the power directly at a few production sites, enabling them to reduce energy costs directly related to some of their mature oil fields, securing their continued production.