



Energy is money! We save both.

Improving energy efficiency at OMV Petrom



THE CHALLENGE

OMV Petrom is the largest integrated oil and gas group in Southeastern Europe, with an annual oil and gas production of about 61 million boe in 2017. The Group has a refining capacity of 4.5 mn tons/year and operates an 860 MW high efficiency power plant.

At the end of 2017, OMV Petrom was present in the distribution market for oil products in Romania, the Moldavian Republic, Bulgaria and Serbia, through a network of 786 filling stations, operated under two brands, Petrom and OMV.

INDUSTRY:
Oil and Gas

PROJECT TYPE:
Energy audit

FUNDING:
Beneficiary sources

In order to continue the energy efficiency improvement process according to the Energy Management System implemented and certified according to ISO 50001, OMV Petrom contacted Servelect for specialized consultancy in finding the right solutions in the Upstream sector of its operations.

To benefit from an ample, clear and realistic "radiography" of the way the energy is consumed, both on the electrical and on the thermal side, an energy audit was carried out for the 9 Assets of the Upstream Division. At the end of 2017, OMV Petrom operated 208 commercial oil and gas fields in Romania, organized in 9 Assets.

The company is responsible for over 90% of domestic oil production and covers about 40% of Romania's gas consumption. Under these conditions, it is also one of the largest industrial consumers in Romania.

Thanks to investments in modernization, energy consumption of production areas has fallen by 11% over the past 10 years, yet there is still potential for increasing energy efficiency.

MEASURES ALREADY IMPLEMENTED TO REDUCE ENERGY CONSUMPTION

- Monetizing non-commercial gases through G2P (Gas to Power) and CHP (Combined Heat and Power) solutions. Currently, 33 such units are in operation, with a combined capacity of 64 MW. In 2017, these units covered more than 50% of Upstream's onshore electricity demand.
- Thermal loss reduction by replacing steam pipe insulation.
- Replacement of motors and pumps with energy efficient systems.

- Modernization of lighting systems and replacement of incandescent bulbs with modern fluorescent or led systems.

THE PROPOSED SOLUTIONS

As a result of the energy audit, we proposed a series of feasible solutions for energy consumption optimization and reduction of operational costs, which were based and quantified through cost-benefit analysis according to the objectives established with the beneficiary:

- Reducing energy taken from the network;
- Delivery of larger quantities of gas to the NTS;
- Using more electricity from existing sources;
- Solutions to reduce energy costs;
- Further reduction of gas emissions.

Thus, the proposed solutions packages for each production area include: reduction of energy demand and thermal losses, new micro-cogeneration sources for self-consumption, innovative solutions for energy recovery of the associated gases, gas pressure and residual heat.

