

Press release*Astana, September 15, 2025***45-kilometer section of the oil pipeline has been converted to solar-powered hybrid energy supply**

As part of the Year of Operational Efficiency announced among the KazMunayGas Group of Companies, the KazTransOil JSC has completed the reconstruction of the power supply system on a 45-kilometer section of the Kalamkas-Karazhanbas-Aktau main oil pipeline.

The modernized Karazhanbas-Kiyakhty section located between 62 and 107 km of the oil pipeline has been converted to hybrid power supply combining renewable energy sources with diesel generator units.

As part of the project implementation, three automated hybrid container-type power plants with solar batteries were installed at 63, 87, and 107 kilometers of the oil pipeline. Each unit includes a photovoltaic system consisting of 48 panels, a 40 kVA diesel generator, storage batteries, charge controllers, a control panel, and a remote monitoring system.

The introduction of automated hybrid power plants has improved the reliability of the facility i.e. the power supply category for the Site has been upgraded from third to first ensuring efficient oil transportation to the seaport of Aktau, the bitumen plant, and the Uzen-Atyrau-Samara system.

The container structure enables the equipment to operate under significant temperature fluctuations ranging from -40°C to $+40^{\circ}\text{C}$ and maximum relative humidity. The sealed structure minimizes external risks and enhances service safety. All units are equipped with video surveillance and lighting systems.

Converting the Site to autonomous combined power supply is critically important for the facility located in a remote area. This solution improves the energy efficiency of oil transportation, reduces dependence on centralized networks, and reduces power consumption at the company's facilities.

The project is a contribution of KazTransOil JSC to implementation of the Low Carbon Development Program of KazMunayGas JSC and confirms the company's commitment to decarbonization, the introduction of renewable energy sources, and improving the reliability of pipeline infrastructure.

KazTransOil JSC is the national operator of the main oil pipeline system. It is a subsidiary of KazMunayGas NC JSC. The company owns a diversified network of main oil pipelines with a total length of 5,400 km and provides pipeline operation services for third-party organizations, covering an additional 5,000 km of pipelines.

**KazTransOil JSC
public relations and
internal communications department**