Investor Day 2023

Amine Unit and the Injection of CO_2

NIS БУДУЋНОСТ НА ДЕЛУ

Amine Unit

Amine Unit: The unit fir acid gases (CO_2 and H_2S) removal from natural gas in order to harmonise its quality with the regulations applicable in the Republic of Serbia, whereby the extracted acid gases (predominantly CO_2) are being injected in "Rusanda 2" reservoir, in order to increase the reservoir pressure and thus increasing crude oil recovery, i.e. the utilization of the reservoir.

Location: Oil and Gas Preparation and Transportation Unit - Production compound in Elemir

Capacity: 500,000 – 800,000 Sm^3/day of acid gas with the contents of CO_2 of up to 30%

The project started in 2011.
The first contract was executed and the construction started in 2013.

The start of the unit's trial run: March 2015.
The completion of trial run and the beginning of commercial operation: 15 December 2015.

Elemir production unit, which consists of the Gas Refinery (commissioned in 1963), and the Amine Unit currently prepare and refine about **60%** of domestic gas production

Objectives

- INCREASING THE DEGREE OF UTILIZATION OF "RUSANDA 2" RESERVOIR, MAINTAINING ITS FORMATION PRESSURE
- EXTENDING THE EXPLOITATION LIFE OF ELEMIR GAS REFINERY IN ITS PROJECTED CAPACITIES
- ENVIRONMENTAL PROTECTION - REDUCTION OF CO_2 EMISSION
- HARMONIZATION OF THE QUALITY OF GAS DELIVERED TO CONSUMERS (THE RULES OF THE TRANSPORTATION SYSTEM OPERATION)
- INCREASING THE PRODUCTION OF LIQUEFIED PETROLEUM GAS AND GASOLINE IN ELEMIR GAS REFINERY
- INCREASING THE PRODUCTION OF GAS WITH HIGHER CO_2 CONTENT

Effects on Oil and Gas Production by 2028

LPG production yield ↑	Thanks to the Amin plant, there is growth in all the **above indicators**.
Gasoline production yield ↑	
The yield of oil production on Rusanda 2 field ↑	
The yield of acid gas production (1000 Sm^3) ↑	Without the Amin plant, **the level of oil production in the Rusanda 2 field would be at a minimum level**, as well as for **the extracted SO_2 for injection and/or sale**.
The yield of the dispatch of refined gas to transportation system (1000 Sm^3) ↑	
Extracted CO_2 for injection and/or sale (1000 Sm^3) ↑	

Effects on Environmental Protection

- Amine Unit extracts from natural gas the harmful acid gases (CO_2 and H_2S) of which CO_2 is considered to be among the key pollutants of the atmosphere (after vapour, CO_2 is the most significant one of the greenhouse gases).

- After extracting them from natural gas, acid gases (predominantly CO_2) are being injected into "Rusanda 2" reservoir, in an environmentally friendly way, and in accordance with legal regulations and global practices.

- If there were no amine unit, acid gases would be monetized either through limited production and dispatch to their consumers, or through small cogeneration power plants, whereby CO_2 would be emitted to atmosphere in combustion products when used by end consumers.

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THANK YOU FOR THE ATTENTION!

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