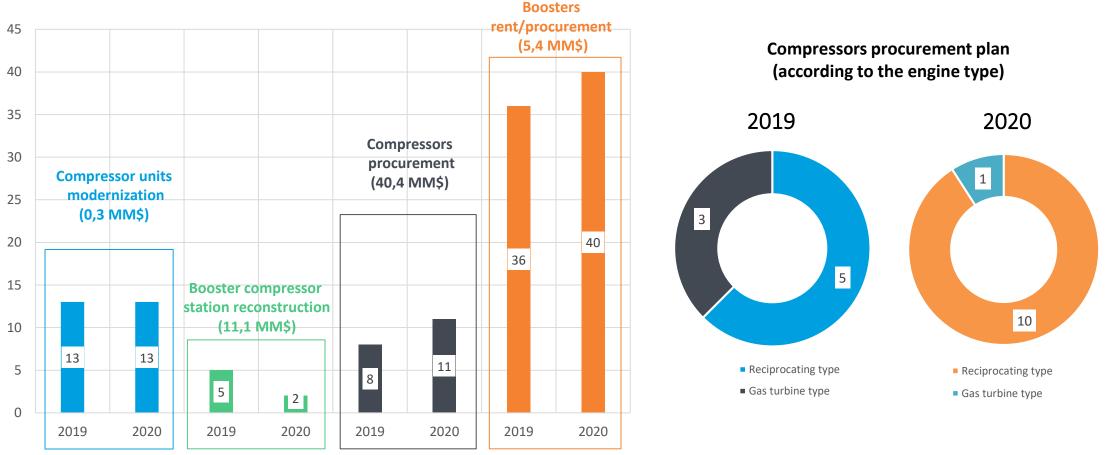




UGV Technology Day

Viktor Marushchenko UGV Midstream Department Baku, April 2019

Booster compressor stations and boosters procurement and rent for UGV needs (57,1 MM\$)



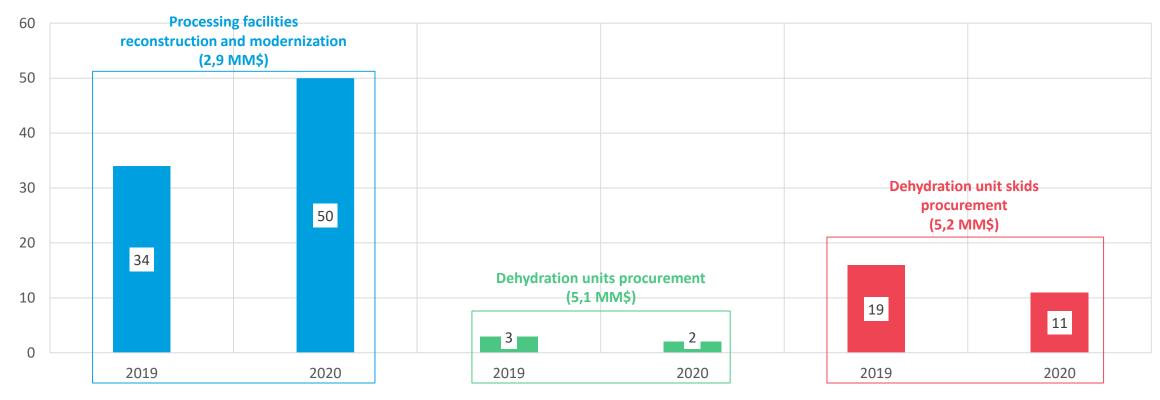
In 2019 UGV plans to modernize 13* compressors and their units, to reconstruct 5** compressors at booster compressor stations and to procure 8*** compressors (5 reciprocating and 3 gas turbine type respectively) as well as to rent/procure boosters for 36 field processing facilities. In 2020 Company plans modernization of 13 compressors and their units, reconstruction of 2 compressors at BCS and procurement of 11 compressors (10-reciprocating, 1-gas turbine), rent with further procurement of boosters for 40 FPF.

^{*} ignition system modernization for compressor Ajax (gas production subdivision «LGV»);

^{**} reconstruction of CPF Tymofiyivka BCS-1 (HK-16 engine replacement) – 2 engines, reconstruction of Solokha BCS with installation of Mars 90 gas turbine compressors – 3 compressors;

^{***} Hayi BCS – 1 compressor, Vyshnevske field CPF – 2 compressors, Letnia BCS – 2 compressors, Mashivka BCS – 3 turbine type compressors.

Gathering, processing and transmission facilities, procurement plan for UGV needs (13,3 MM\$)

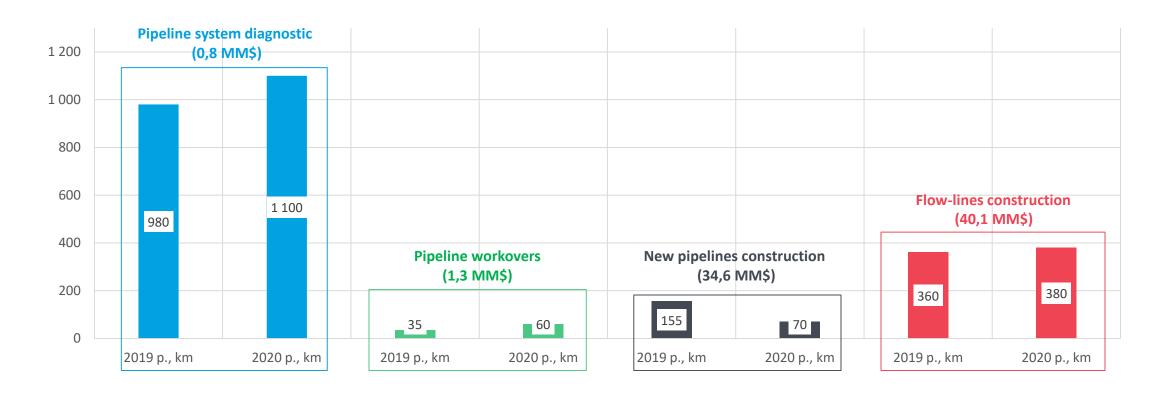


In 2019 Company plans to reconstruct and modernize **34** processing facilities (both types: FPF and CPF) by changing the existing separation, heat-exchanging, pumping equipment with modern ones. In order to meet gas quality regulatory requirements UGV is going to procure **3** dehydration units for processing facilities at Yevheniske, Vyshnevske and Letnianske fields as well as skid dehydration units for city gates (gas distribution stations). In 2020 Company reconstructs and modernizes **50** gathering and processing plants (replacement – reinstallation of existing separation and technological equipment) as well as procures **2** dehydration units for Peschepynske and Kolomaczke field and **19** skids for city gates.

Next types of processing equipment are planned to procure: dehydration units, skid external cooling equipment, separators and heat-exchangers, atmospheric and pressurized storage tanks (for hydrocarbons and chemicals), pumping equipment (for transmission and injection), odorization units, crude oil and condensate stabilization equipment, cogeneration units for replacement of direct heaters.

Piping system construction, maintenance and servicing

for UGV needs (76,7 MM\$)



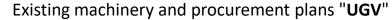
2019

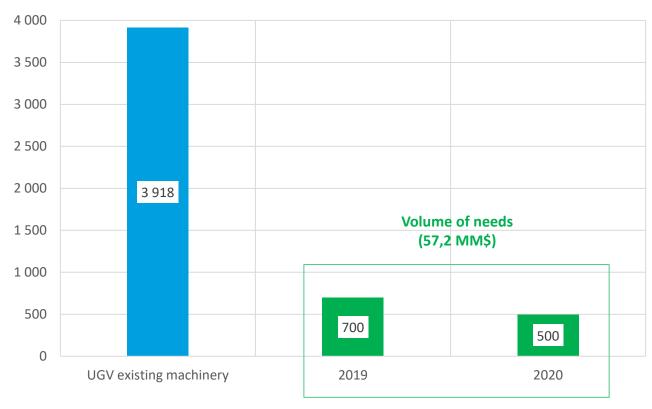
- 980 km of piping diagnostic
- 35 km of pipeline workovers
- 155 km of new pipelines construction
- 360 km of flow-lines construction

2020

- 1160 km of piping diagnostic
- 60 km of pipeline workovers
- 70 km of new pipelines construction
- 380 km of flow-lines construction

Special machinery procurement needs (57,2 MM\$)

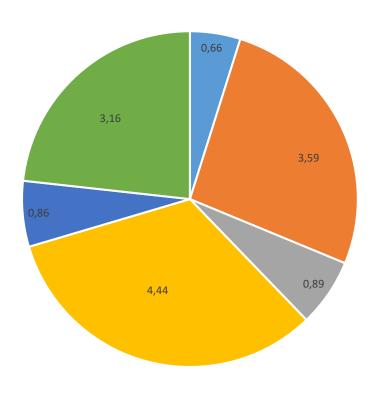




In 2019 UGV plans to procure 700 new machineries, in 2020 – 500 units such as: cranes, bulldozers, trails, graders, dumpers, excavators, increased passability shift cars, tractor trucks, vehicles for transportation of pipes, tank trucks, lift trucks, mobile repair cars, rigs, mobile anchor trucks, mobile nitrogen compressor trucks, mobile flow-lines and manifolds units, cement trucks, mixers, minibuses, steam-generators, etc.

Metrology, automatization and control system (13,6 MM\$)

Metrology, control system and automatization needs of UGV for 2019 (13,6 MM\$)



- LGV division
- ShGV division
- Ukrburgas drilling division

- PGV division
- Gas and gas-condensate processing division
- Other branches

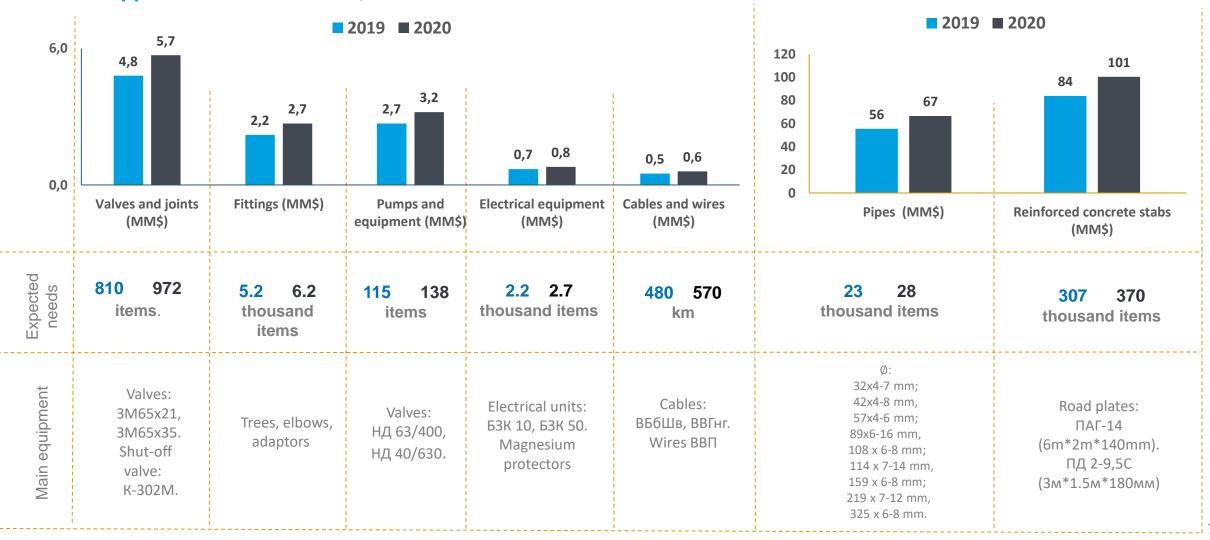
In 2019 – 2020 UGV plans to implement new control systems or modernize existing wear and tear equipment for control and metering systems within these projects:

- Implementation of automatize system of controlling production and processing in UGV;
- Modernization of 19 automatize control system of processes at FPF in LGV, PGV ans ShGV production divisions;
- Renovation of control systems at 8 gathering and processing facilities;
- Reconstruction of 36 commercial metering system;
- Reconstruction and renovation of 156 technological metering system;
- Improvement of gas sampling sites;
- RE-equipping of chemical labs.

Construction: total needs

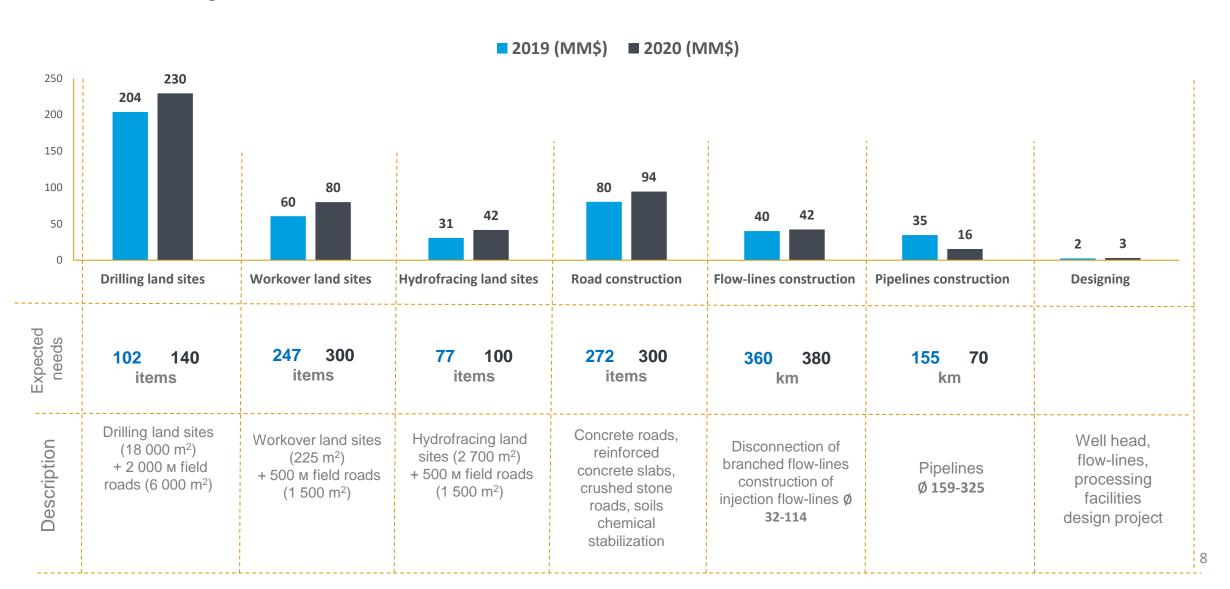
Planned volumes of procurement of well-head equipment, land sites, pipes, valves, joints and fittings for flow-lines, technological manifolds, trunk and branch lines

Approximate CAPEX~ 148,0 MM\$



Construction: total needs

Planned volumes of procurement of well-head equipment, land sites for drilling, hydrofracing, repairs and sidetracking, flow-lines construction



UGV contacts for further information



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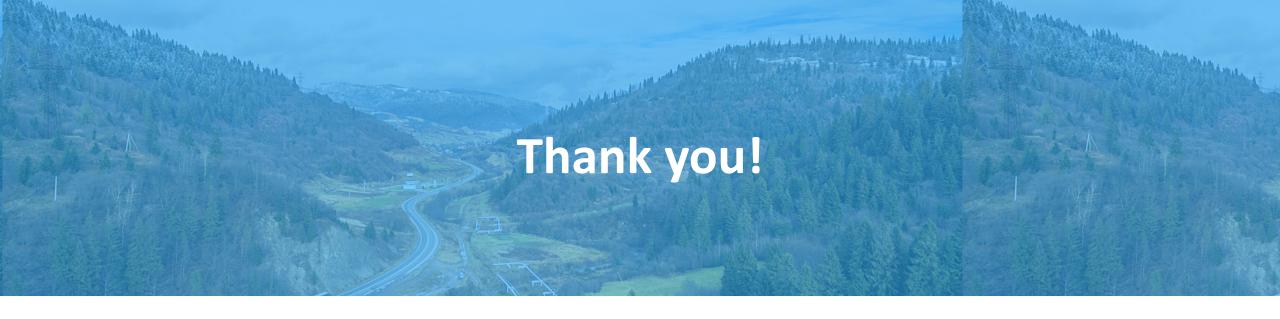
Purchase of Materials



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Purchase of services





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