

Digital Transformation Effect on the Economics of the Gas Market

Roundtable input by ***Algeria***
Electricity and Gas Regulatory Commission
Ms. Madina HAMAOU



➤ *Domestic Transmission system*

- The domestic gas transmission network monitoring and control system is defined in the Network Code.
- CREG has already approved the system investment within the 10-years development plan of the gas transmission system set by the TSO (national market).
- The domestic national monitoring system “centralized monitoring/remote system” is planned by TSO but still to be implemented.
 - ✓ Achievement:
 1. Setting of the remote gas station list ;
 2. Definition of required data for each gas station (monitoring parameter, control commands...);
 3. Drafting the system consultation specifications ;
 4. Submission of authorisation application to the « Communication NRA » to auto-operate the Fiber Internet network (5 025 km are developed which 45% under operation)

The current monitoring of the transmission system, is carried out through :

- Remote Terminal Units (RTUs) components are installed in the transmission entry and exit points and allow the transmission of data (pressure and flow).
- Operator accesses to this data through interface.
- Existing infrastructure are designed to supply only natural gas.
- Current electricity and gas law and its implementing legislation do not cover the digitalization aspect and smart meter.
- However they provide that the installations of the gas transmission system operator and those of the network users must be equipped with a telecommunication system to provide the information required for communication with the various users and operators.

Smart metering on the transmission system :

- Automatic volume correctors are installed at all exit points of the transmission system such as the measurement stations or the pressure reduction and measurement stations dedicated to ensure the supply of the system users (DSO, HP industrial, power station). Used to meter gas consumption in cubic meter (m³)
- No smart meter is used and the meter is read by the TSO operator.

➤ *Distribution system*

- The existing distribution system is designed to supply natural gas.
- Decentralized LPG distribution system are in place.
- Current electricity and gas law and its implementing legislation do not account for the digitalization aspect and smart meter.

Nevertheless they provide that:

- a) The gas distribution network includes the ancillary infrastructures such as remote operation devices and telecommunication network.
 - b) The pressure reduction and measurement stations dedicated to supply the household (LP) and industrial (MP) may be equipped with remote operation/reading devices and automatic volume correctors
- Household gas meters are not equipped with the volume corrector. A formula is applied to correct the volume.

➤ *Distribution system*

- Automatic volume correctors are installed at some pressure reduction and measurement stations dedicated to supply the industrial MP users.
- No smart meter is used for both, LP and MP users and the meter is read by the DSO.
- Pilot project was undertaken by DSO with “CDTA research institute” to develop and demonstrate LP smart meter.



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Emailaddress@domain