



Distribution Network Losses and their management – Case Study session

Case study by the Algerian Electricity and Gas Regulatory Commission

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Basic information about DSO(s) and network losses



- Gas Distribution is operated by one public distribution company (SADEG) which manage 58 concessions spread over 4 geographical regions.
- Gas quantity: In 2020 the gas distribution company (SADEG) distributed 13,32 Gm³
 - ➤ Householders (LP) : 11,93 Gm³
 - ➤industrial (MP) : 1,39 Gm³
- Gas customers : 6 450 374 (2020)
 - ➤ Householders (LP): 6 442 717
 - ➤industrials (MP): 7 567
- The smart metering isn't applied in the gas distribution system.

Losses framework



- The 02-01 law published in 2002 related to electricity and distribution of gas by pipelines and their implementing legislation :
- Set the definition of technical gas losses by:

 "The gas consumed by the network operations and use"
- Executive decree n°08-114 dated April 09th, 2008 setting the conditions of allocation and withdrawal of electricity and gas concessions and the specifications of concession holder rights and obligations :
- -Distribution, public service regulated activity, operated under concession regime

Losses framework



- -The concession holders have to submit a five year performance commitment plan for approval by the Minister of Energy after CREG advice.
- -The concession holders have to commit on improving operation performances in terms of technical, commercial, economical and financial criteria as well as in compliance with public service obligations.

Scope of the Commitment Plan



Commitment to improve performances through setting and monitoring performance indicators covering the aspects of quality and continuity of service rendered to consumers and concession management service.

These commitments relate to improving the following aspects:

- Technical,
- Commercial,
- Financial,
- CREG defined within consultation of the Ministry of Energy and the concession holders the model of the plan as well as the performance indicators and their definitions.

" commercial performance criteria: Losses rate"

Losses and tariff setting



- The distribution network tariffs setting methodologies include an incentive machanism to reduce the cost and improve the quality of services.
- •The Proposition for new tariffs are made on the basis of the forecasted losses threshold;
- The threshold losses rate is included in the tariff calculation.
- The losses quantities beyond this threshold are note taken into account in the tariff calculation.



Distribution Network Losses (key figures)

> Natural gas losses percentage last three years (losses/distributed amount)

	2018	2019	2020
Distributed amount (Gm³)	13,02	13,49	13,32
Losses rate (%)	2,14 %	3,03 %	1,71 %

Distribution Network Losses management



- The losses quantities beyond the threshold are not taken into account in the tariff calculation.
- Losses rates thresholds are fixed in the five years commitment plan for each concession.
- CREG conducts concessions auditing which concern the control of the reliability of data provided by the distributor on the commercial indicators such as ,the losses rate and the degree of realization of commitment plans.
- CREG receives, each quarter, the reporting of the indicators from concessions.

Distribution Network Losses management



- An annual report is established by the CREG and sent to the Minister for Energy stating:
 - Difference between the achievements and the annual objectives set in the commitment plans as well as their evolution,
 - Constraints reported by the concession holders justifying the non-achievement of objectives,
 - CREG recommendations for the concession holders,

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THANK YOU FOR YOUR ATTENTION!