

Distribution Network Losses and their management – Case Study session

Case study by Energy Regulatory Office in Poland /URE/

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Basic information about DSO(s) and network losses



1. *What is the total number of Distribution System Operators (DSOs) in country?*

51 DSOs (31 Dec 2020)

2. *The structure – each DSO's natural distributed gas quantity and number of consumers?*

The information is labelled as a business secret by the DSOs and cannot be disclosed without the permission of operators. The statistical data are protected due to the act of 29th June 1995 on public statistics.

Total number of customers (2021)		
	high-methane gas	nitrogen-rich gas
households	6,721,891	369,444
business customers	28,915	3,257

3. *Share of smart meters in system?*

NRA has no information re. the share of smart meters in the distribution systems.

Basic information about DSO(s) and network losses



4. *At what level and through what legislative documents is the component of losses in the distribution network covered in your country (government decree, technical normative acts, regulator's decision or other similar acts)?*

CIT Law, Accounting Law, accounting standards (Polish standards and IFRS)

5. *What are the principles that define the methodologies which are used to determine the gas losses in distribution networks (national normative acts, methodologies, pipeline construction technical norms, other technical studies or analytical studies)?*

DSO's methodologies

6. *What is the volume/proportion of losses that are taken into account for tariff purposes. What are the various countries approach to this aspect of network losses recovery through tariffs?*

The information is labelled as business secret by the DSOs and cannot be disclosed without the permission of the operators. The share of gas losses in the volume of transported gas is a function of the length of the system, pressure in the pipelines, number of clients, volume of transported gas, etc.

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

- 1) *Technical losses*
- 2) *Comercial losses*

- DSOs are not able to report gas losses in the above mentioned categories. In the statistic reports they present the total losses including technical losses (leaks, pipeline damage, gas venting) or commercial losses (theft, in case of small customers air pressure, temperature and gross calorific value is not measured, estimation of consumption).
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What actions taken to reduce losses in system?

- 1) *Investments made*

replacement of meters (oversized or undersized), smart meters – there is no law regulation for smart metering (no definition or requirements)

- 2) *Improved proceses*

enhancing the frequency of measurements, enhancing the quality of estimations of gas consumption (load profiles), GCV modelling, line pack estimation

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ATTENTION!**