

9th ECDSO-g Coordination Platform

WebEx, 20 May 2020

*Policy Guidelines on Measurement
in the natural gas distribution networks*

Legal basis

Measurement units and conditions

Required conversions on the way from meter to bill

Standard measuring equipment

Smart metering

Non-measured delivery

Billing and right to access consumption & metering data

Gas Directive 2009/73/EC (implementation by 1.1.2015/31.12.2020 Georgia)

Obligation of DSOs to manage the system; to provide sufficient information to other operators; to respect contractual arrangements...including metering responsibility

Customers' right to be informed on own consumption

Energy Efficiency Directive 2012/27/EU (implementation by 30.11.2017/31.12.2018 Georgia)

Individual meters that reflect the final customers **actual** consumption (**gas**, electricity, heat and water supply)

Access to consumption data to manage own consumption

At transmission level:

EASEE GAS CBP 2003-001/02

EU NC on interoperability and data exchange

Volume [m³] in reference conditions (0 °C; 1,01325 bar)
Energy units [kWh] (Gross Calorific Value)

At distribution level

Transitional period for introduction



Volume from actual measurement conditions

to reference conditions (0 °C; 1,01325 bar)

$$p_1 V_1 / T_1 = p_2 V_2 / T_2$$

Conversions for *pressure*, *temperature*, *altitude*

From volume at reference conditions

to energy units (GCV)

Gas composition / quality to be determined



Ownership / responsibility

Composition (meter + corrector + chromatograph)

Calibration, monitoring, maintenance, replacement

Standards & legislation

Standard meters

Type of meter: Diaphragm / rotary / turbine / ultrasonic

Depends on type of customer/capacity

Flowrate range / maximum permissible error

Directive 2004/22/EC on measuring instruments (not in EnC acquis)



No mandatory installations, based on economic assessment and long term benefits (D73/2009/EC)

Different stakeholders – different interests and benefits:

- ***Consumer management in regards supply switching, prepayment, disconnections, helping retail market opening***
- ***Remote reading allowing more frequent reading and thus bringing improvements in the system and payment control***
- ***Communication of information, to support the customer in managing their energy consumption and energy cost***

Non measured delivery

“Final [gas] customers to be equipped with individual meters...in so far is **technically possible, financially reasonable and proportionate to the potential energy savings**”

Energy Efficiency Directive

But.....In Ukraine still >20% of households without meters



Non measured delivery to be determined via estimations & consumption profiles

Reference customers as foundation

Installed capacity and heating equipment, size of house/apartment;

seasonal temperature, region

Well designed IT system to manage load profiles

*Continuous adjustment
and improvements*

“Billing information have to be based on actual consumption...where this is technically possible and economically justified” ***Energy Efficiency Directive***

“Each customer has a right, free of charge, to “have at [its] disposal [own] consumption data...and access to its metering data.....Each customer also has a right, free of charge, to be properly informed of actual gas consumption and costs frequently enough to be able to regulate own gas consumption”. ***Gas Directive***

Billing frequency – at least once per year

Access to data at least quarterly and on the request



The Guidelines do not cover all measurement aspects,

but they reflect discussed topics

and should help to the Contracting Parties in implementing Gas & Energy Efficiency Directives

The background is a satellite-style image of the Earth at night, showing city lights. Overlaid on this are numerous glowing blue lines that represent energy transmission paths, connecting various points across the globe.

*Thank you
for your attention!*

Karolina Čegir, Gas Expert

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