Policy Guidelines on Measurement in the natural gas distribution networks
Content of Guidelines

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
Legal Basis


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


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 \([m^3]\) in reference conditions (0 °C; 1,01325 bar)
Energy units \([kWh]\) (Gross Calorific Value)

At distribution level

*Transitional period for introduction*
Conversions

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
Measurement instruments

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)
Smart metering

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
Billing and right to access data

“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
Thank you for your attention!

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