Methane emissions by gas industry in the EnC Contracting Parties

Karolina Čegir, Senior Gas Expert
• Total natural gas consumption ~ 38 Bcm/y
• Total natural gas production ~ 20 Bcm/y
• UGS capacity ~ 31,5 Bcm
• No LNG terminals
• Transmission network
  ~ 45.000 km
• Distribution network
  ~ 370.000 km
ECS Report on methane emissions

Triggers

DSOs’ focus on gas losses
GIE & Marcogaz report on methane emissions by the EU gas system operators

Purpose

To include EnC CPs gas industry in the EU gas industry trends and actions

Objective

An assessment of methane emissions by the gas system operators in the Contracting Parties, as a ground level for further activities

By-side results:

• ECS joined MGP
• 3 companies signed OGMP 2.0
Time line

- Start: January 2020 / Dissemination of Marcogaz’ template tables
- February – June: Communication on purposes, aims, methodology
- Additional issue: translation of questionnaires and methodology
- Additional issue: confidentiality
- September – December: filled questionnaires, cross checking data
- January – March 2021: writing report
- April 2021: publishing report
- May 2021.....start of follow up
## Responses – coverage of the report

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<tr>
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<th>no of TSOs</th>
<th>no of DSOs</th>
<th>no of SSOs</th>
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<td>Bosnia and Herzegovina</td>
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<tr>
<td>Ukraine</td>
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<td><strong>Total</strong></td>
<td><strong>14</strong></td>
<td><strong>136</strong></td>
<td><strong>2</strong></td>
</tr>
</tbody>
</table>

6 TSOs  
33 DSOs  
1 SSO

38,000 km of transmission network  
= 92% of total in EnC CPs

262,000 km of distribution network  
= 71% of total in EnC CPs
**Results**

- **Comparison possible with UNFCC NIR**
  - But only for Ukraine (Annex I country)
- **Comparison with the EU methane emissions**
  - Similar structure of gas sectors
- **Comparison on the global level**
  - $0.2 \text{ Mt} / 72 \text{ Mt} (0.3\%)$

Leakage coefficients:

- **Transmission** \(0.0001, 0.0003 - 0.0006 (0.0039)\)
- **Distribution** \(0.0030, 0.01 - 0.02 (0.0705)\)

Approximately $200 \text{ kt } \text{CH}_4$ in 2019
Transmission network in focus (1)

Methane emissions per type of emission
Transmission network in focus (2)

Methane emissions per type of asset
Distribution network in focus

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Distribution Lines
Service Lines
City Gate and Customer Supply Stations for Metering and Regulating
Other

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Karolina Čegir, Senior Gas Expert

29 March 2021
Reflections

- System composition plays a crucial role (plain comparisons are not possible)
- Companies have very different levels of measurement & recording of methane emissions
- Influence of chosen emission factors and calculation alternatives (DSO service lines)
- Understanding of fugitive emissions
- Emissions vs consumed gas / Allocation of fuel gas
- Correlations between reporting on methane emissions and total network losses
What next?

- **Follow up of the report**
  
  to check used reporting structures
  
  to include missing system operators
  
  to use new reporting template

- **Using the report for opening discussions:**
  
  on losses methodologies
  
  on reporting frameworks
  
  to set up the targets of emissions’ decrease

- **Spreading the scope**
  
  to include oil and coal industry

- **Monthly Methane Mondays**
  
  Increasing awareness, spreading the knowledge

- **Cooperation with relevant initiatives and institutions**
  
  GIE, Marcogaz, MGP, OGMP…..

- **Following legislative developments in the EU**
  
  EU Methane strategy to be followed by regulations on reporting and LDAR
THANK YOU FOR YOUR ATTENTION

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