

"Development of an Accurate and Consistent Method for Methane Emission Estimation from the Gas Distribution Grid"

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■ Different Methods in place, how to estimate emissions:

Method of Battelle 1989 (DE) → applied by **Belgium, (Italy)**

Method of Battelle 1994 (CH) → applied by **Switzerland**

Method of FH ISI 2000 (DE) → applied by **Germany, Netherlands, (Sweden)**

Method of Stoller-DBI 2012 (DE) → applied by **Germany**

Method of British Gas / National Grid (UK) → applied by **United Kingdom**

Method of GRDF/ENGIE (FR) → applied by **France**

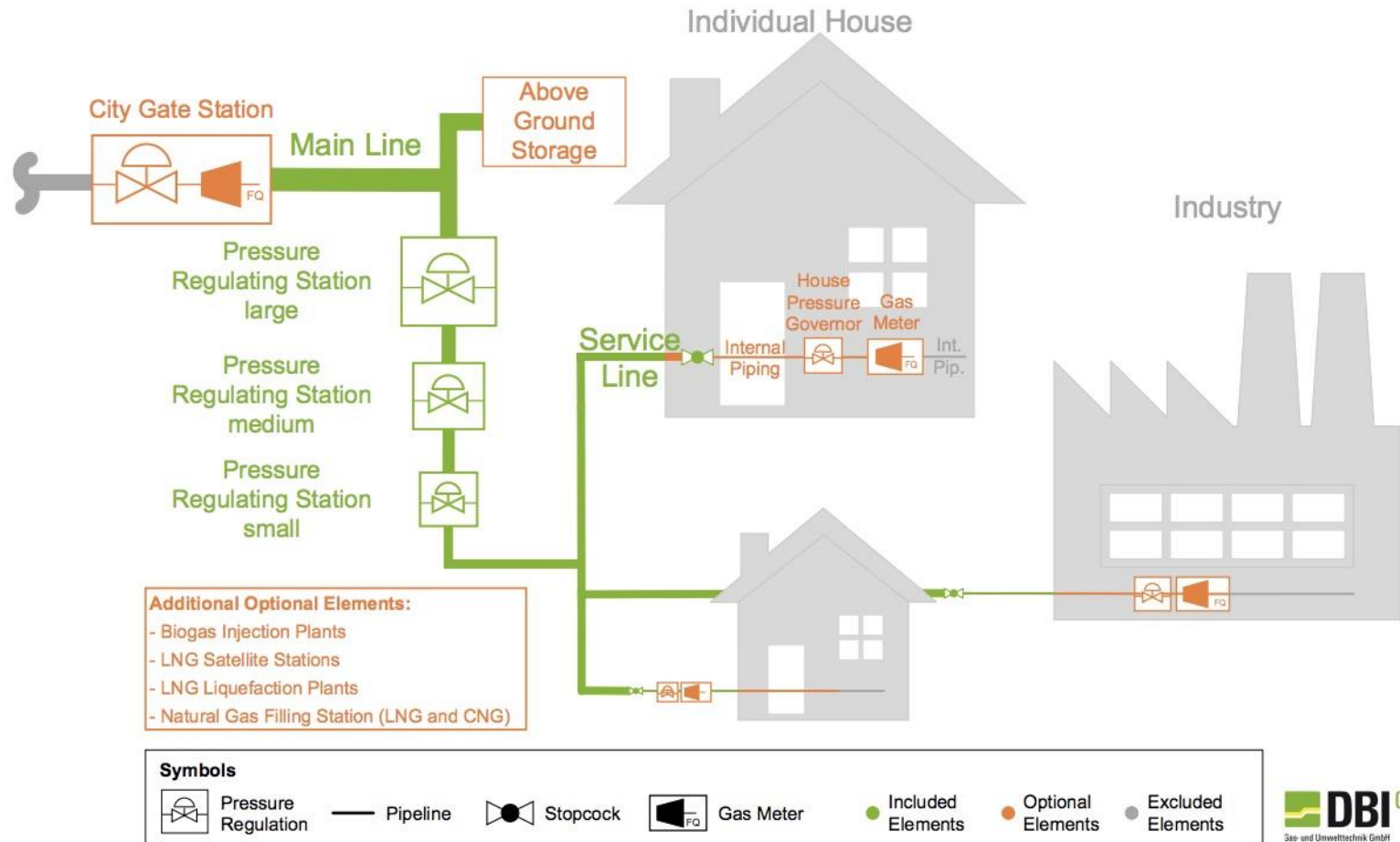
Method applied by Gas Natural Fenosa (SP)¹ → applied by **Spain**

Method of EPA → applied by **USA**

Method of IGU 2000 / IPCC Guidelines 2006 → applied by **Romania**

Method per Sale of Natural Gas → applied by **Poland**

Method of Marcogaz 2005 → emission estimation at EU level



Aim is to develop an accurate and consistent method for emission estimation of the gas grid.



**Methane
Estimation**



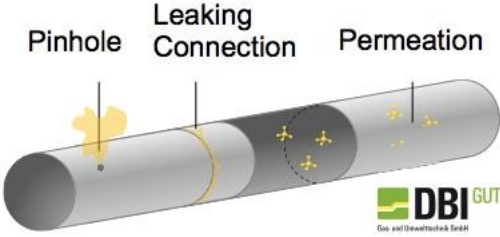
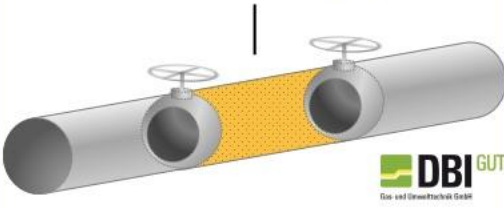

**Emission
Method**

MEEM DSO – HOW DOES IT WORK?

- MEEM suggests equations and input parameters (if necessary assumptions) for all types of emissions in the distribution grid
 - Permeation of plastic pipes
 - Leaks (found during monitoring)
 - Venting/purging during maintenance
 - Incidents (e.g. caused by third-party damage)

- If a country or an operator does not have the required data, simplifications are suggested

TYPES OF LEAKAGE

Category A: Intrinsic Emissions	Category B: Operational Emissions	Category C: Incident Emissions
	<p>Amount of gas which is vented or section which is purged</p> 	<p>Large gas escape due to damage (e.g. digging)</p> 
<p>Emissions arising from: pinholes, small cracks, leaking joints, permeation</p>	<p>Emissions arising from: venting and purging during commissioning, renewal, and decommissioning</p>	<p>Emissions arising from: incidents/ accidents occurring e.g. due to landslide or third party damage</p>

■ **Broad base supports** the **acceptance** of the developed method

■ **Partners** of the MEEM DSO project:

— 11 partners:



■ Project is furthermore **supported by**:



NEXT STEPS



NEXT STEPS

- 16-03-18: Draft report for MEEM (also forwarded to Marcogaz and Eurogas)
 - Feedback to the draft report until 29-03-18
- 06-04-18: Updated version of the draft report provided to all MEEM partners, Marcogaz and Eurogas
 - Second feedback round until 20-04-18
- 27-04-18: Final Report

March 2018

CW	Mon	Tue	Wed	Thu	Fr	Sat	Sun
9	26	27	28	1	2	3	4
10	5	6	7	8	9	10	11
11	12	13	14	15	16	17	18
12	19	20	21	22	23	24	25
13	26	27	28	29	30	31	1

April 2018

CW	Mon	Tue	Wed	Thu	Fr	Sat	Sun
13	26	27	28	29	30	31	1
14	2	3	4	5	6	7	8
15	9	10	11	12	13	14	15
16	16	17	18	19	20	21	22
17	23	24	25	26	27	28	29
18	30	1	2	3	4	5	6

Thank you for your attention!

Please contact

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