2nd Public consultation on issues and impacts related to the CEN gas quality standard EN16726 :2015. Refined scenarios

Please respond by 21 October 2016

**2nd Public consultation on issues and impacts related to the CEN gas quality standard EN16726:2015**



# Introduction

ENTSOG has accepted the invitation to carry out an impact analysis and subsequently draft an **amendment to the Network Code on interoperability and data exchange rules in conjunction with the CEN standard EN 16726**.

EC foresees making the standard legally binding by including it in the network code and invites ENTSOG to prepare a detailed analysis –on the entire gas value chain in all relevant Member States- on the impacts and issues associated with codifying the standard and subsequently submit to ACER a proposal to amend the Network Code by 30 June 2017.

ENTSOG shares EC's remark that a broad involvement of stakeholder is crucial to provide fundamental input to the analysis, especially on those issues outside the fields of expertise of our member transmission system operators.

ENTSOG has invited stakeholders to contribute to the process from the earliest stage by organising a first public consultation closed on 15 July 2016. The outcome of the first public consultation and the way forward for the process were presented at the workshop held in Cologne on 13 September 2016.

**Structure**

This questionnaire consists of three sections:

- **Contact details** and questions on the segment(s) and country(ies) represented by the respondent.
- **Impact assessment of refined scenarios**. This section presents the principles of the way forward proposed by ENTSOG and the details of the refined scenarios.
- **General questions** on certain policies and possible improvements to the CEN standard.

In addition to the answers, any complementary information can be sent to interoperability@entsog.eu from the same e-mail address as indicated in the contact details for this questionnaire.

Based on the answers received, ENTSOG will present on 16 November 2016 an analysis of the 3 refined scenarios. ENTSOG will finalise the impact assessment and publish its view of the most appropriate scenario in December 2016. If an amendment of the network code is proposed, ENTSOG will develop text in conjunction with stakeholders during Q1 and Q2 2017 and will be open for any further support to ACER and EC in this case.

Respondents to this public consultation are highly encouraged to:

- Support the answers to the questions with fact-based evidence
- As far as possible, liaise with the relevant European stakeholder organisation

The public consultation will be open until **21 October 2016**

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Notice: Please print out your completed questionnaire before pressing the button "Done" at the very end of the questionnaire. After pressing the button your answers will be submitted and changes are not possible any more. Otherwise you will have to fill in the complete questionnaire once again.

To print out a page right click on it and select "Print". If you would like to a copy of your answers as submitted to ENTSOG, please send an e-mail to interoperability@entsog.eu indicating "Copy of public consultation reply" in the subject line.

In order to facilitate the preparation of your answers a pdf version of this survey is available on ENTSOG website. Please, note that replies to this questionnaire sent by e-mail will not be accepted.

# Contact details

* **1. Contact Details - mandatory fields**

| | |
|---|---|
| First and Last name: | |
| Company Name: | |
| Will you be representing an association (please specify) | |
| Email: | |

**2. Contact Details - optional**

Job Title:

Tel:

Mobile:

Street:

Postal Code:

City:

Country:

* **3. Would you like the answers to the following questions to be kept confidential and be reported only in an aggregate manner?**

- ◯ Yes
- ◯ No

Other (please specify)

* **4. Which EU Member State do you represent?**

- ☐ Austria
- ☐ Belgium
- ☐ Bulgaria
- ☐ Croatia
- ☐ Republic of Cyprus
- ☐ Czech Republic
- ☐ Denmark
- ☐ Estonia
- ☐ Finland
- ☐ France
- ☐ Germany
- ☐ Greece
- ☐ Hungary

- [ ] Ireland
- [ ] Italy
- [ ] Latvia
- [ ] Lithuania
- [ ] Luxembourg
- [ ] Malta
- [ ] The Netherlands
- [ ] Poland
- [ ] Portugal
- [ ] Romania
- [ ] Slovakia
- [ ] Slovenia
- [ ] Spain
- [ ] Sweden
- [ ] United Kingdom
- [ ] Non-EU Member State, please specify below
- [ ] European interests (stakeholder association), please specify below

Comments

* **5. Which segment (s) of the gas value chain do you represent? [1]**

- [ ] Production
- [ ] Upstream operator
- [ ] LNG terminal operator
- [ ] Storage operator
- [ ] Transmission system operator
- [ ] Distribution system operator
- [ ] Trader/shipper/supplier
- [ ] Industrial equipment manufacturer/end user
- [ ] Power generation
- [ ] Biomethane production
- [ ] Domestic appliances
- [ ] Mobility
- [ ] National authority
- [ ] Other (please specify below)

[1] Segment refers to different parts of the gas value chain: production, LNG terminals, transmission, distribution, storage, electricity generations, industrial consumption, domestic/commercial use, mobility, etc,

# Refined implementation scenarios

**Principles**

*Competence and subsidiarity*

- ENTSOG's understanding of the current legal framework is that the adoption of a technical standard is voluntary unless it is enforced by European or national legislation.
- Even in case of a European standard that is made legally binding, Member States would be entitled to define any additional parameter that is not covered by the European law (such as, in this case, Wobbe Index).

*Scope*

- The scope of application will implicitly define who is responsible for delivering the gas compliant to the standard.
- The scope of the INT NC is mainly limited to interconnection points. The impact assessment will include an analysis of the legal tools that each scenario may require.

*Governance of changes*

To provide stability in the legal framework, if the INT NC is amended, the reference to the standard will be linked to the 2015 version, preventing any revision to become automatically binding.

*A-Deviations*

If the standard is made legally binding, within the binding scope, A-deviations wouldn't be applicable after the defined implementation period.

*Legal framework for parameters not defined in the standard*

- Regardless of any amendment to the INT NC, national specifications for other parameters should still be valid (otherwise the safe use of gas would be not defined).
- Operators should be entitled to refuse gas that meets the standard but not the other parameters defined nationally and not covered by the standard (e.g Wobbe Index, hydrogen, methane content)

In the example shown in the table below, If gas is delivered to an entry point that is within 0.55-0.7 RD but outside the national WI range of 14.00-15.20 kWh/m3, the network operator would be entitled to refuse the entry of that gas.

| Parameter | National spec | EN16726:2015 | Harmonised national spec |
|---|---|---|---|
| Relative density | 0.6 – 0.65 | 0.55 – 0.7 | **0.55 - 0.7** |
| Wobbe Index | 14.00 – 15.20 | No value defined | **14.00 – 15.20** |
| Hydrogen | 2% | No value defined | **2%** |

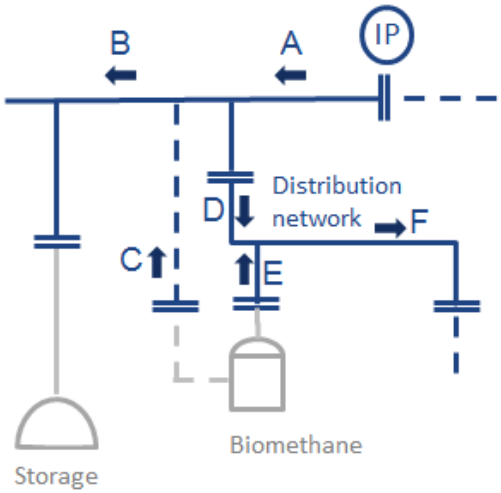
*'Flexible' limits in CEN standard, e.g. O2*:

"At network entry points and interconnection points the mole fraction of oxygen shall be no more than 0,001 %, expressed as a moving 24 hour average. However, where the gas can be demonstrated not to flow to installations sensitive to higher levels of oxygen, e.g. underground storage systems, a higher limit of up to 1 % may be applied."

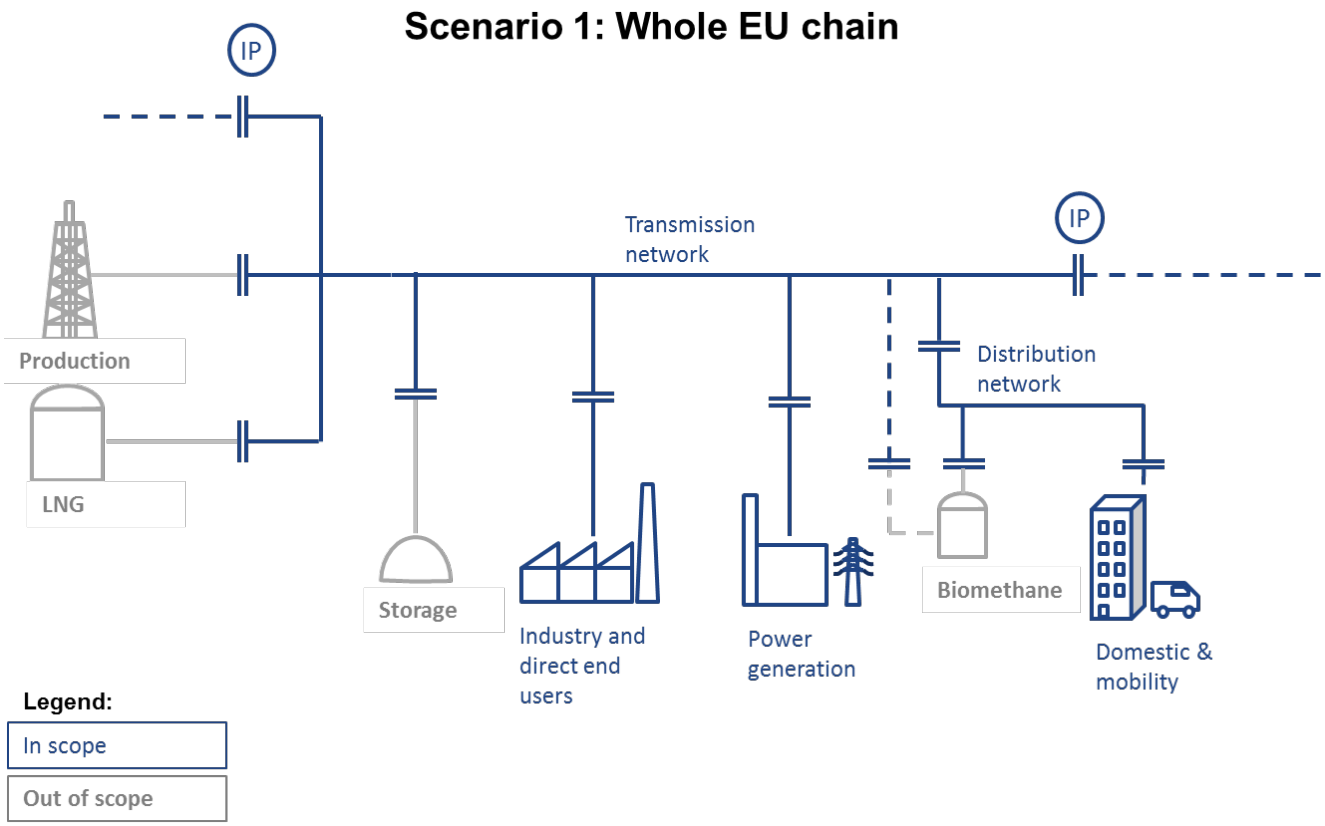
(Similar wording applies for CO2, with a range of 2.5% to 4.0%)

ENTSOG understanding of flexible limits in the standard is the following:

- The background for this flexibility in the standard is facilitating biomethane injection
- The effect of a sensitive installation on the limits to be set for a network (or network entry point) is to be studied on a case by case basis. The agreed limit may be anywhere between the low and the high limits set in the standard (e.g. 3% for $CO_2$)
- When gas is off-spec, co-mingling practices and /or flow commitment arrangements could be used in order to bring the resulting flow into specs.
- In the example graph below:
    - Flow in C will be restricted so that flow in B is below the agreed limit (sensitive installation downstream)
    - Flow in E will be restricted so that flow in F is below the highest limits (no sensitive installations)

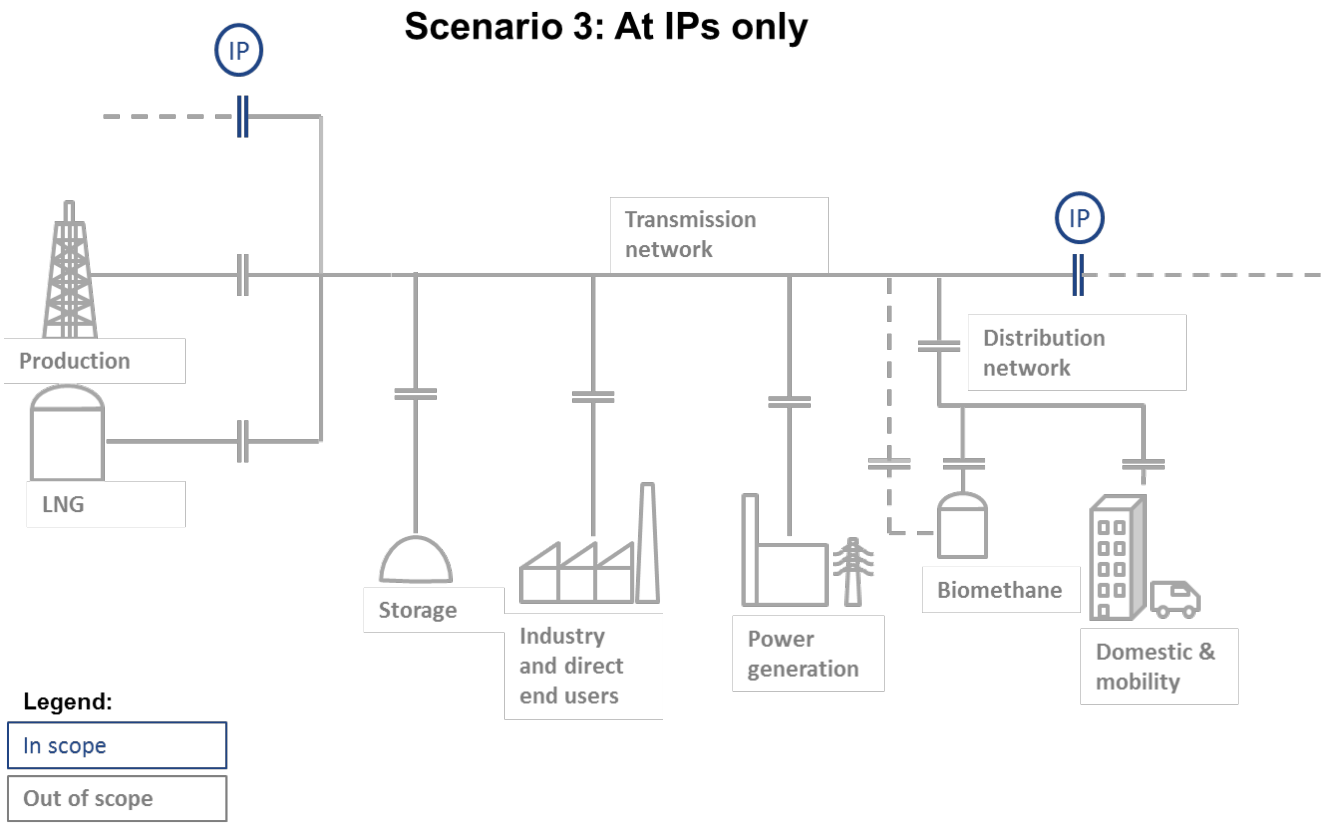

B
A
IP
Distribution
network
D
F
C
E
Storage
Biomethane

# Refined implementation scenarios



- **Description**: parties injecting gas in gas networks need to ensure compliance of the gas with the CEN standard. National requirements/network code will be fully valid and enforceable for parameters not included in the standard, e.g. Wobbe Index, sulfur in end-use (also for end users directly connected to TSOs), hydrogen and any other.
- **Scope**: same as EN16726. TSOs, SSOs and all downstream segments will receive standard gas. It shall also apply at entry points to EU.
- **Impacted parties**: producers/infrastructure operators delivering gas into TSO/DSO networks (all gas supplies) and consumers /infrastructures receiving gas from those networks.
- **Implementation timing**: fixed and equal for all countries and segments. This scenario will fully apply after a fixed transition period (to be consulted) after INT NC amendment.
- **Interaction with NC**: After the transition period, article 15 will not apply for the parameters covered in the standard.
- **In-spec gas**: Any gas meeting the standard shall be accepted provided that national requirements for additional parameters are also met.
- **Off-spec gas**: Any gas not meeting the standard shall be refused.
- **A-deviations**: Applicable up to the date on which compliance with the standard is required but not afterwards.
- **Flexible limits**: See principles above.

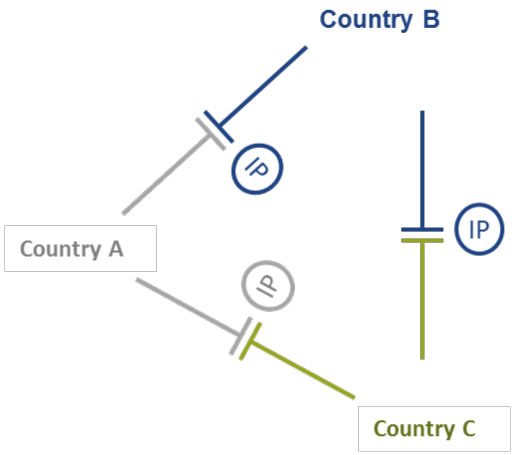
*Note: Scenario 2 (Transmission networks) is intentionally omitted.*



- **Description:** only when a restriction to cross-border trade is recognised, TSO will analyse, via the process set out in Article 15, feasible solutions (flow commitments, gas treatment) without changing specs and, as another possibility, adopting EN16276:2015 for the conflicting parameter.
- This scenario does not have as a prerequisite a full harmonisation of national legislation.
- **Scope:** interconnection points between EU Member States.
- **Impacted parties**: transmission system operators
- **Implementation timing**: as described in Article 15, the best timeframe will be determined on case by case basis by the involved TSOs and competent authorities.
- **Interaction with NC**: CEN standard will neither substitute nor act as a fall-back (default rule) for Article 15. On the contrary, the application of the standard for the parameter causing the restriction, together with retaining national specs, will be subject to the cost-benefit analysis and public consultation process described in the network code.
- **In-spec gas**: If the adoption of the standard for the conflicting parameter comes out as the optimal solution, any gas meeting the standard shall be accepted provided that national requirements for any other parameter than the one causing the barrier are met.
- **Off-spec gas**: If the adoption of the standard for the conflicting parameter comes out as the optimal solution, TSOs will retain flexibility they have today to cope with gas not meeting the standard by swapping or co-mingling (Article 15(1)).
- **A-deviations** will not be applicable at those IPs where the standard is applied
- **Flexible limits**: See principles above. The cost benefit analysis will determine the required flexibility to apply the standard (or the national requirements).

| Applicable specs | Flow commitments | Gas treatment | ... |
|---|---|---|---|
| National requirements | CBA 1 | CBA 2 | |
| EN16726:2015 (without A-deviations) | CBA 3 | CBA 4 | |

# Scenario 4: Voluntary adoption




**Legend:**

EN 16726

National spec A

National spec C

- **Description**: This scenario means that ENTSOG would propose not to amend the INT NC, If there is any cross-border trade restriction due to gas quality, Article 15 will be applied.

**6. Rank the scenarios in order of preference**

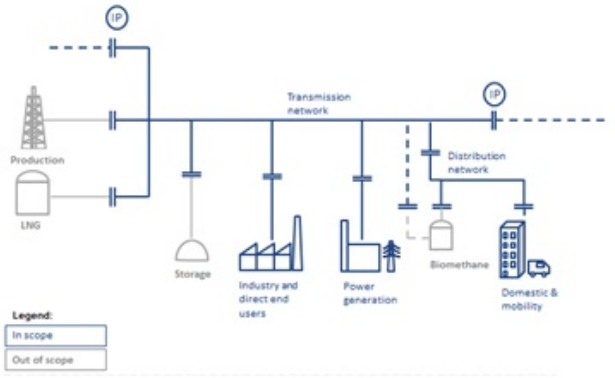
Whole EU chain

At IPS

Voluntary adoption

# Impact analysis for scenario 1: Whole EU chain

Could you please summarise for this scenario the following aspects? If you would so prefer, you can refer to the answers provided to the first public consultation.




### 7. Impacts

**8. Benefits/savings**

**9. Costs**

**10. Time (number of years)**

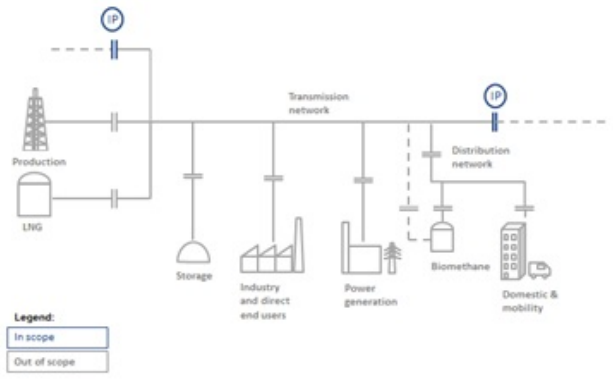
**11. Is this given scenario feasible for your segment/organisation/country?**

- ◯ Yes
- ◯ No

Comments

# Impact analysis for scenario 3: At IPs only

Could you please summarise for this scenario the following aspects? If you would so prefer, you can refer to the answers provided to the first public consultation.




### 12. Impacts

**13. Benefits/savings**

**14. Costs**

**15. Time (number of years)**

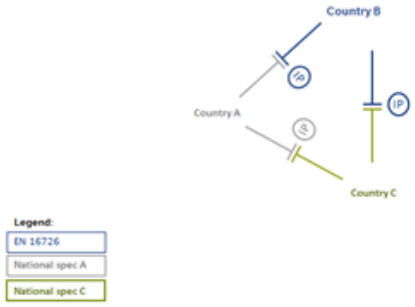
**16. Is this given scenario feasible for your segment/organisation/country?**

- ◯ Yes
- ◯ No

Comments

# Impact analysis for scenario 4: Voluntary adoption

Could you please summarise for this scenario the following aspects? If you would so prefer, you can refer to the answers provided to the first public consultation.




**17. Impacts**

**18. Benefits/savings**

**19. Costs**

**20. Time (number of years)**

**21. Is this given scenario feasible for your segment/organisation/country?**

- ◯ Yes
- ◯ No

Comments

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# General questions

**22. Would you propose any amendments to the refined scenarios proposed by ENTSOG?**

- ◯ Yes
- ◯ No

Other (please specify)

**23. To provide stability in the legal framework, if the INT NC is amended, the reference to the standard will be linked to the 2015 version, preventing any revision to become automatically binding. Do you agree with this approach?**

- ◯ Yes
- ◯ No

Other (please specify)

**24. For the "At IPs only scenario", would you agree to use the CEN standard as default rule when TSOs do not reach an agreement on a solution?**

- ◯ Yes
- ◯ No

Other (please specify)

**25. Would you recommend the revision of the current requirements of the CEN standard?**

- ◯ Yes
- ◯ No

**26. Only if answer to question 25 is affirmative, for which parameter, term or condition?**

- ☐ Relative density
- ☐ Total sulfur without odorant
- ☐ Hydrogen sulfide + Carbonyl sulfide (as sulfur)
- ☐ Mercaptan sulfur without odorant (as sulfur)
- ☐ Oxygen
- ☐ Carbon dioxide
- ☐ Hydro carbon dew point
- ☐ Water dew point
- ☐ Methane number
- ☐ Other

What would be the value proposed? Can you provide evidence for that?

**27. Only if answer to question 25 is affirmative, would such revision change your preference for the scenarios? Which one would you choose?**

- ◯ Whole EU chain
- ◯ At IPs only
- ◯ Voluntary adoption

**28. Do you agree to amend the INT NC to include a reference to the gas quality standard (i.e. you support "whole EU chain" scenario and/or "At IPs only")?**

- ◯ Yes
- ◯ No

Comments