

**Gas System
Operator**

EU Update

Transmission Workgroup

6th June 2019

nationalgrid



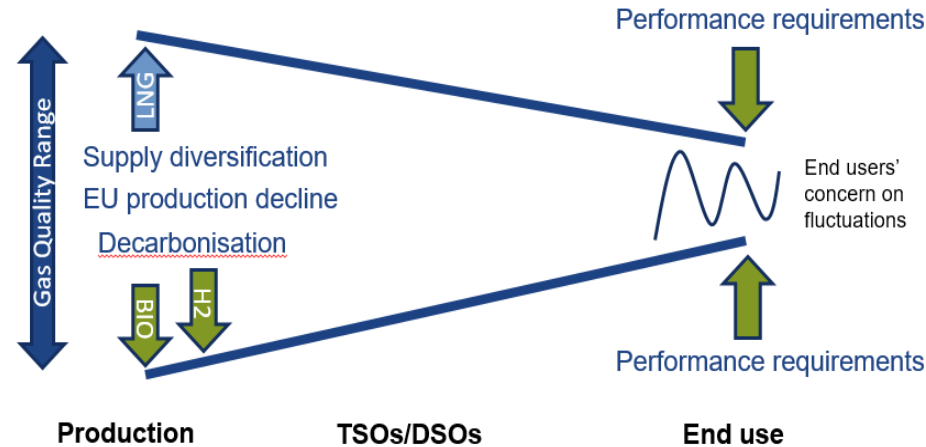
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EU Gas Quality Standardisation: Re-cap

- **The CEN H-gas quality standard EN 16726 was published in 2015**
 - Wobbe Index (WI) was not included because there was no agreement among Member States on a suitable range
- **In 2016, EC proposed to make the standard binding by inclusion in the EU Interoperability Network Code**
- **ENTSOG led a stakeholder engagement process to examine how the standard could be implemented**
 - Difficulties identified e.g. ~20% of UK gas production potentially locked out
- **October 2016: EC announced voluntary adoption, encouraged CEN to continue its work on WI and that binding harmonisation would be revisited once WI debate concluded**
- **CEN has been examining how to include WI in the EU standard since that time**

Context / Challenges

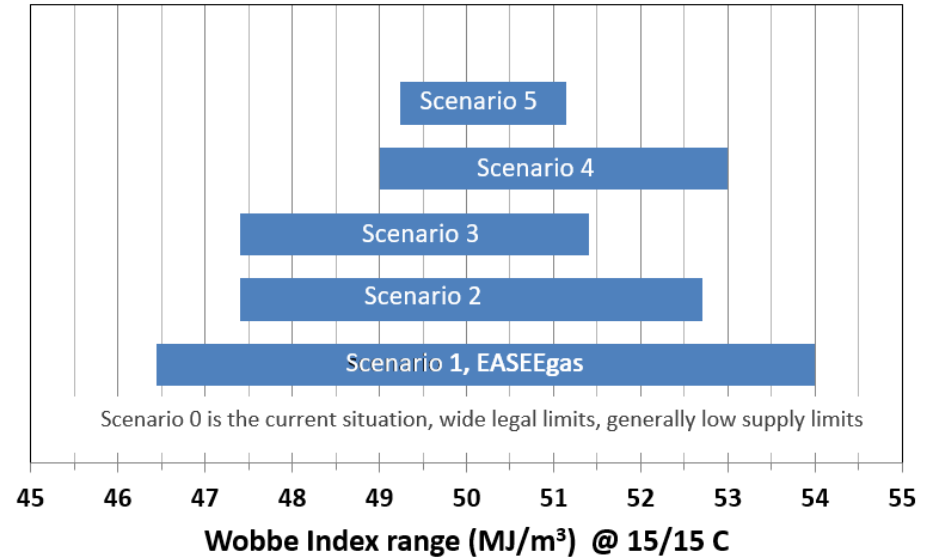


- **Conflict between ensuring end use performance and diversification/decarbonisation of gas supplies**
 - LNG has high WI values, biomethane and hydrogen have low WI
- **For some end users, potential for fluctuation matters more than absolute values**
- **Discrepancy between actual gas quality and legal limits**
- **Gas quality is not only a matter of WI, but also of GCV, Methane Number, composition**

Focus has moved from from cross-border trade barriers to facilitating decarbonisation, diversification and end user application performance, while ensuring safety

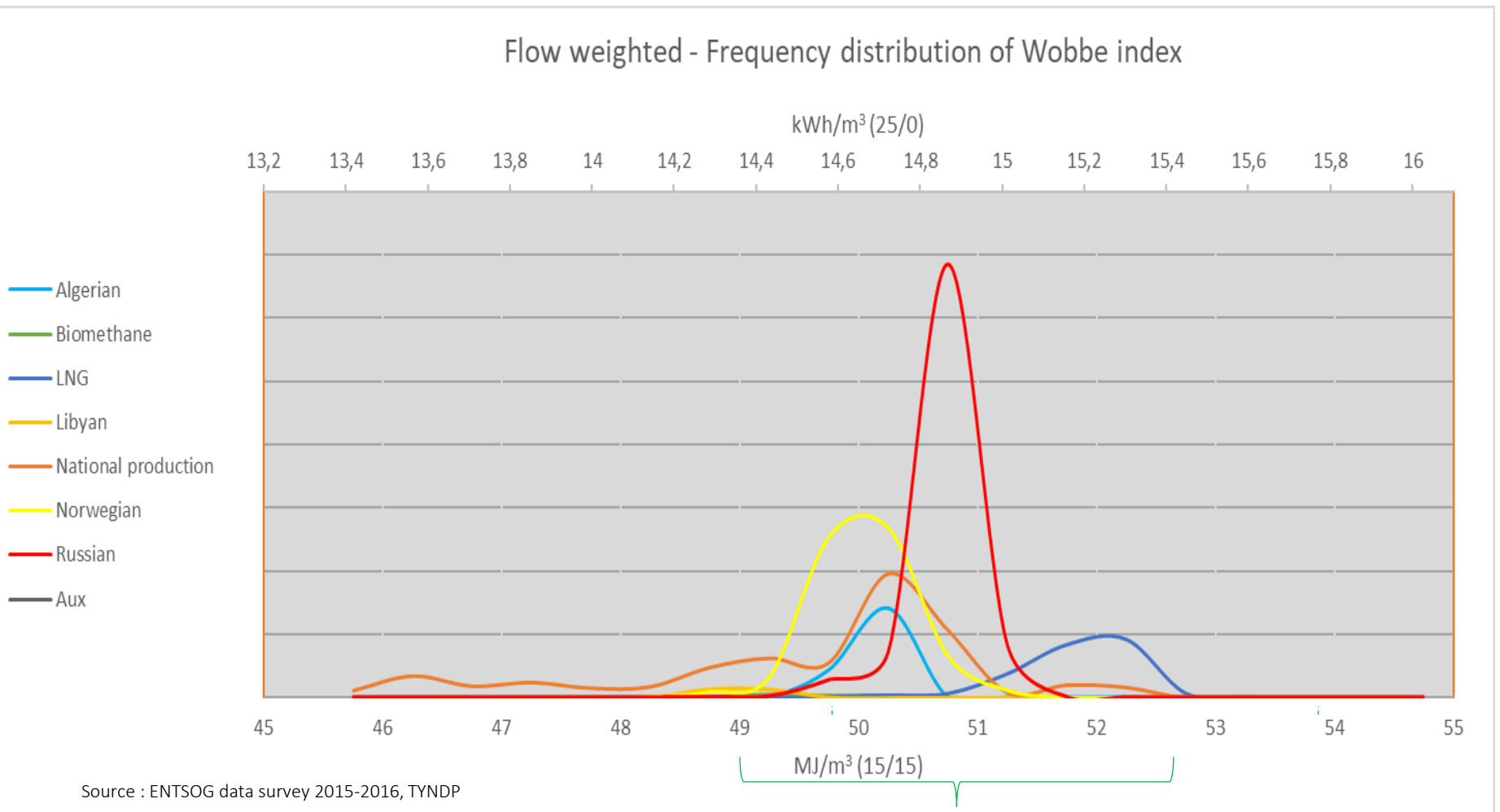
CEN's Approach to WI Standardisation

	W_{Smin} [MJ/m ³]	W_{Smax} [MJ/m ³]
Scenario 0	Status quo	Status quo
Scenario 1	46,44	54,00
Scenario 2	47,40	52,70
Scenario 3	47,40	51,40
Scenario 4	49,00	53,00
Scenario 5	49,24	51,15



- Survey on impact of defined WI 'Simple Scenarios' scenarios (range + rate of change) on all parts of the gas chain
- Compilation and evaluation of the survey input
- Propose a potentially acceptable WI scenario (Integrated Scenario)

What WI range does EU actually see?

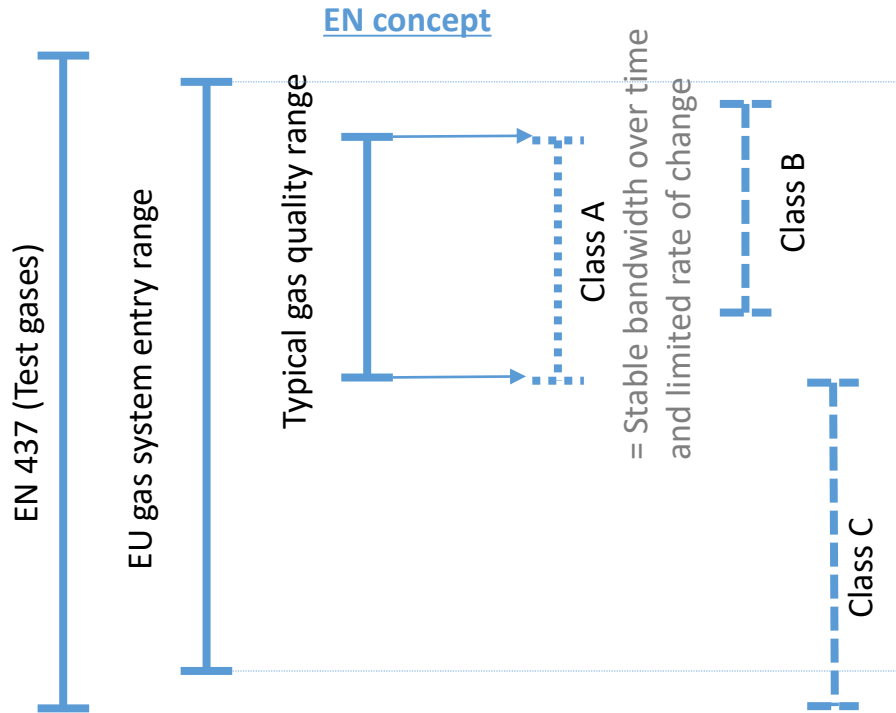


49.0 – 52.7 MJ/m^3
covered ~ 92 % of EU entry gases

Potential WI Proposal for EN 16726

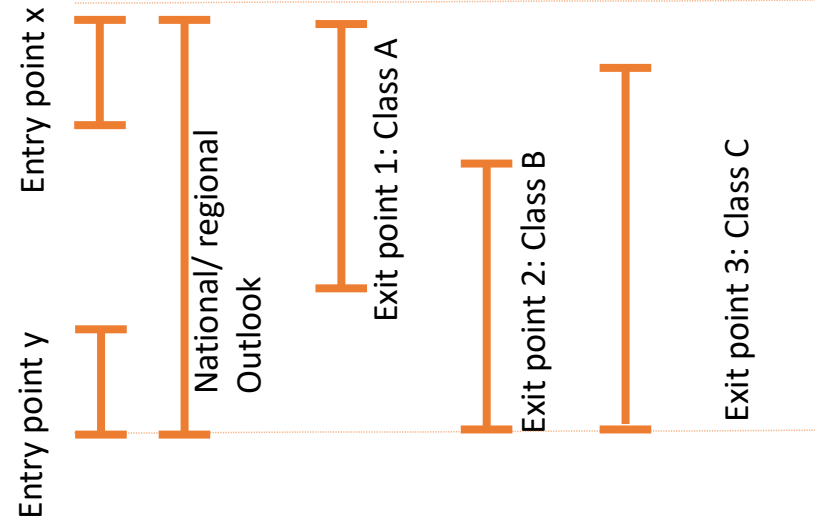
- **EU-wide system entry range**
- **Classification of exit points**
 - Class A: exit points where actual WI range is expected to be between a limited range and subject to limited variation
 - Class B: exit points expected to see the same variation in WI as class A but with different WI limits
 - Class C: exit points where WI range width is expected to be more variable
- **Where Class C exit points are sensitive to gas quality variation, potential solutions may include end user adaption, information provision by TSOs / DSOs, grid management or gas treatment**
- **Remaining issues:**
 - TSO/DSO ability to classify exit points / degree of certainty
 - Cost allocation for 'class C' points
 - WI range limits at entry and exit range
 - Regulatory framework: application of the standard / obligations
 - Future hydrogen considerations
 - Hydrogen blend capability may be compromised if WI ranges are too narrow
 - Impact on WI variability: initial analysis shows minimal impact up to 5% H2 concentration, 10-20% looks more material

Emerging 'Integrated Scenario' Concept



- Safety headroom between EN 437 and entry range needed

Example of national/regional implementation



- Class B is as wide and stable as Class A but different in absolute values.
- Class C is any other case. For class C exit points a case by case solution may be needed where the offtake is sensitive to gas quality variation.

Next Steps

CEN update to Madrid Forum in June 2019

Public Consultation on WI proposals in Autumn 2019

Final Report in December 2019

Amendment of EN 16726:2015 thereafter

FUNC Platform Update

Two new issues have been raised on the Functionality Platform <http://www.gasncfunc.eu> by Equinor in relation to data exchange

1) Lack of harmonisation of interfaces on EU capacity platforms

- > At present, 'interactive' data exchange is prescribed for capacity trading processes
- > The existence of multiple capacity booking platforms and some TSOs running some capacity processes via their own websites makes it difficult for network users to keep track of their capacity and to get an overview of options available for transporting the gas in Europe and the associated costs
- > Suggested that Edig@s should be implemented to standardise these processes

2) BRS for nominations and matching

- > ENTSOG's business requirements specification (BRS) for nomination and matching procedures references does not include descriptions on how to handle the within-day obligations described in article 25, 26, 28, 29, 30, 31, and 32-39 of the EU Balancing Network Code.
- > Suggested that these other processes are harmonised to use Edig@s

The next step is for ENTSOG and ACER to validate, categorise and prioritise these issues. If they are judged to have EU-wide relevance, stakeholder engagement to explore solutions will commence.

Feedback from BEIS/Ofgem EU Gas Stakeholder Meeting

Topics discussed at this meeting on 28th May 2019 included:

EU Exit Preparedness

Madrid Forum w/c 3 June: focus areas to be decarbonisation, sector coupling and future role of gas

EC's Gas Package 2020: To cover 3 'pillars': mirroring of Electricity Directive and Regulation, upgrading the market and sector coupling

EU TAR Code Implementation

Energy White Paper being drafted, to be published later this summer.

BEIS study on gas/electricity interactions – findings to be presented to the select committee in Autumn 2019

Code Governance Review

EU Gas Quality Update

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