

Gas quality management in the European gas networks

Presentation to Madrid Forum

30 April 2021



The purpose of our work is to provide input to the Commission's review of the legislative framework for gas markets

Reviewing the framework



This year the Commission will review the Third Energy Package for gas (Directive 2009/73/EU and Regulation 715/2009/EU).

Gas quality at the core of the review



The conclusions of the 34th Gas Regulatory Forum (Madrid Forum) invited the Commission to integrate gas and hydrogen quality considerations into its review.

Guiding considerations



 Allowing cost-effective management of mix different gases and qualities. Our work will **inform** the Commission's Impact Assessment and future legislative proposals (public consultation May-June).

We **analysed and proposed reform options** on the following aspects in relation to changes in gas quality due to the integration of renewable and low-carbon gases:

- Issues of cross-border operational instruments;
- Rules and responsibilities of market participants; and
- Cross-border cost allocation and regulatory oversight.

Our approach





Widen/test/substantiate conceptual note by collecting different opinions in a stakeholder workshop.



Incorporate stakeholder views for final discussion with European Commission officials

Document development

Concept note



Document extended and validated (stakeholder input)

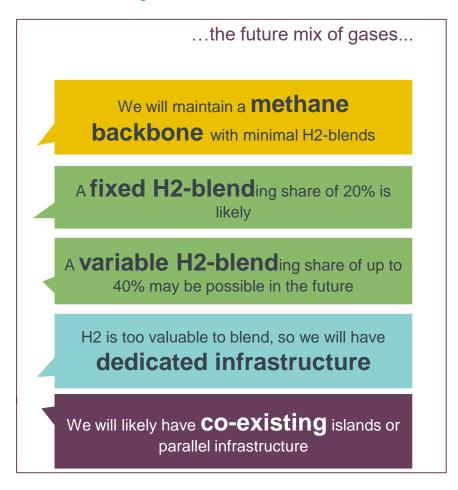


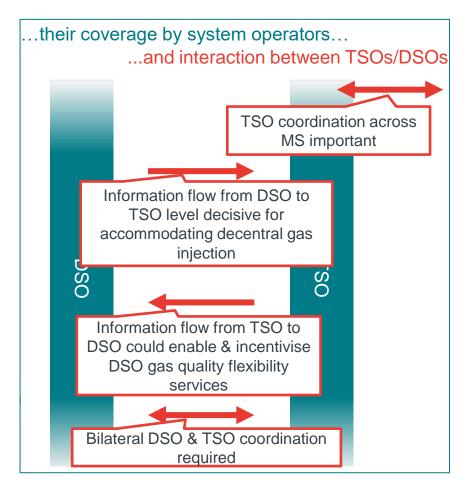
Final document



Gas quality management may become more challenging going forward

Different models may develop and co-exist in the future, and market participants have different views* on, e.g.:





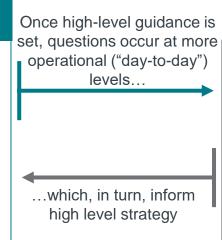
^{*}Summary of range of views expressed by stakeholders during interviews carried out by Frontier Economics and during workshop held as part of the assignment.

In this context it is worth assessing whether the current framework for gas quality management will be sufficiently robust to future challenges



Gas quality harmonisation/ standard-setting

- How adequate is the process in INT NC Art 15 for resolving cross-border gas quality disputes given the changing context for gases?
- What should be the governance arrangements for implementing agreed gas quality standards regionally/across borders?
- To what extent is more EU-level action required on the enforcement of harmonised technical standards (e.g. CEN)?





Cost-effective quality management

- Is information on gas quality shared sufficiently among the relevant stakeholders across the value chain?
- How to clarify the responsibilities and set the right incentives for an efficient quality management and integration of low-carbon gases?
- How to allocate quality management costs for cross-border flows?

Before answering these questions, we need to recognise that standards cannot be set independently of the view on system design

E.g.: Different methane qualities

E.g.: Hydrogen

A wider gas quality entry range is less restrictive for upstream actors. But it also implies greater responsibility (and cost) for SOs downstream to ensure the right exit quality.

The narrower the gas quality entry range the more the responsibility lies 'upstream'.

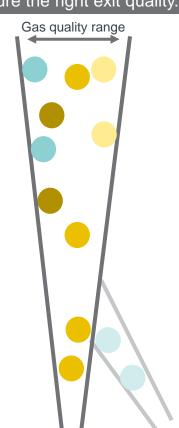
If gases remain off specification, they are either excluded from the system...

...or need a dedicated system

Gas producers / Importers / neighbouring SOs



Consumers







Purely qualitative analysis to illustrate underlying logic of how gas quality standards might affect system design.



There is a case for increased multilateral co-ordination on standards as well as strengthening the existing bilateral process



Governance / Enforcement

Issues with the current framework

- No tool for enforcing harmonised gas quality standards (e.g. CEN) across MS
- Current framework focusses on bilateral (as opposed to multilateral) co-ordination
- And also leaves issues to be resolved by TSOs, rather than requiring co-ordination at a higher level (e.g. when setting policy priorities for renewable and low-carbon gas deployment)

Issues for discussion

- Is more required in terms of EUwide enforcement of harmonised standards?
- How can MS be encouraged to coordinate on policy development, to ensure that national policies do not hinder cross-border trade in gases?



Reinforcing cross-border co-ordination

- The existing dispute settlement process
 (Article 15 Interoperability Network Code) is
 a 'last resort' process. As such it may not
 provide sufficient clarity/visibility to producers
- The process itself is considered lengthy (though there is limited experience in applying the process)
- There seems to be a lack of clarity on how the process is triggered and on stakeholders' rights in the process
- How could considerations around gas quality be better integrated with infrastructure planning processes (at both MS and EU-wide level)? How can TSO-DSO interactions best be managed?
- What opportunities are there for streamlining the process?
- How should stakeholder rights be clarified?

This needs to go alongside the right incentives on players across the value chain

and incentives





Cross-border cost allocation

Issues with the current framework

- To the extent SOs are responsible for managing gas quality, limited elaboration at EU level on what constitutes efficiently incurred costs
- Some support from stakeholders for incentives for grid users to minimise the costs incurred by SOs in managing gas quality...
- ...but concern about what this means in practice for gas quality-sensitive end-customers
- ...who may in many cases also be pricesensitive (as exposed to international trade)
- No EU framework in place for tariffs at DSO level
- Lack of clarity in how the **costs** for investments to manage cross-border gas quality issue should be allocated
- Lack of clarity in how operational costs incurred in managing gas quality should be allocated between TSOs, e.g. in the event of crossborder flows of gas that are off-specification

Issues for discussion

- What additional guidance / requirements could be placed on SOs (e.g. non-discrimination between flexibility sources)?
- Is EU-level clarity required on the potential for 'grandfathering'-type approaches for end-users?
- How to avoid the risk of diverging approaches between MS on recovering costs from users?
- Is greater EU level harmonisation required on tariffs at distribution level?
- To what extent could the revised TEN-E proposal facilitate crossborder cost allocation for investments?
- What additional clarity is required in legislation as regards cross-border allocation of operational costs?



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