Preliminary Consultant Report on Cost-benefit assessment of Gas Quality Harmonisation in the EU

ENAGÁS RESPONSE TO DG ENER's PUBLIC CONSULTATION PAPER

16 September 2011

Index

A. Introduction

Enagás welcomes DG ENER's initiative and its invitation to provide comments on the preliminary consultant report on cost-benefit assessment of Gas Quality Harmonisation in the EU.

Enagás is a basic infrastructure operator in Spain (transmission, regasification and underground gas storages).

Gas specifications in Spain fit to the range defined by EN-437. Consistently, the Spanish gas system has never experienced any relevant or systematic problems.

B. General notes

- Enagás recognises that harmonising gas specifications across the whole of Europe is challenging.

- Gas quality specifications need to be wide enough to not induce excessive treatment costs as that would risk increasing prices for end-users. A very narrow specification for all Europe will not allow to accept gas from some supply sources without treatment, which is not really cost-effective and would worsen Europe's ability to attract gas supplies.

- Enagás fully recognises the fact that the European Commission's aim is to develop a gas specification appropriate for the European Union. However, we note that the final results of the cost-benefit analysis conducted by Pöyry and GL Noble Denton are based solely on:

    - the adoption of specifications based on EASEE-gas CBP Harmonisation of gas quality (which is only met by Luxemburg), and

    - the assessment of the replacement and treatment costs that harmonisation according to those specifications would generate.

- The report only reflects one case study and many other different approaches could have been adopted. Enagás is concerned that the results of the study are flawed since the hypothesis on what it is based are inadequate: it assumes that it would be required to replace all appliances in all countries, and the replacement is based on cost-hypothesis not necessarily applicable to all countries. For example, no replacement of gas appliances would be required in Spain and other countries where gas specifications are already wider.

- Spain has been replacing the old domestic appliances for new ones during the last two decades. In 2005, Spain finalised with this replacement (special renovation plan for the Spanish Administration), in order to adapt them to the EN-437 (European Standard last updated in 2003). As a consequence, the system has never experienced any relevant or systematic problem as regards gas quality.

- Given that some Member States already use gas specifications similar to one another and harmonisation towards the EASEE-gas recommendations may not be possible without incurring on large expenses, it seems feasible that some harmonisation should be possible with minimal cost exposure. Consequently, further analysis could be carried out to determine which gas specification could be acceptable to the largest number of Member States with the lowest replacement cost of gas appliances across the European Union.

- In the case that a similar conclusion was obtained, a cost-benefit analysis of gas quality harmonisation at a regional level would be useful, since it could produce more fruitful results.

- On the other hand, it is very important to clarify the allocation of responsibilities on gas quality between the different stakeholders in the gas chain (in particular, who is responsible for the delivery of gas within specification), and which are the delivery points affected.

- The most cost-efficient solution would probably be gas processing upstream at source.

- However, if infrastructure operators were obliged to invest in gas treatment facilities, a key principle should be that the regulators ensure that these additional costs are recovered by infrastructure operators from downstream users, independently of the use of these facilities.

C. Questions

C.1 *Do you agree with the high-level conclusions of this report?*

No. See General notes.

C.2 *As a manufacturer do you maintain an inventory of installed appliances?*

N/A

C.3 *Are there any specific gas quality related issues not recognised within this report?*

Enagás notes some gas quality related issues which have not been recognised in the report. In particular, as regards biomethane, the EC launched the Mandate M/475 to CEN for Standards for biomethane for injection in natural gas pipelines in November 2010.

Furthermore, some countries are starting to inject biogas not only into distribution network but also into the high pressure networks; therefore it might be worth to consider it in the study.

C.4 *Do you manufacture appliances that can operate over the full EASEE-gas specification without loss of efficiency or increased of emissions?*

N/A

C.5 *Do you have evidence of damage or failures caused by appliance operating on gas that is not compliant with the local gas quality specification?*

Natural gas specifications have always been met and no systematic damages/failures on appliances have been detected in Spain.

Enagás monitors the fulfilment of gas specifications according to EN-437 and other relevant complementary national regulations.

C.6 *Would you support the adoption of the proposed EUROMOT gas quality specification, (Appendix B)*

Enagás is against such a narrow specification, since it could have a detrimental effect on the Spanish gas system which would lead to the obligation of investing in facilities which are not currently required.

Although Spanish gas specifications are wider than EASEE-gas specifications, our system has a successful operation system.

Furthermore, having wider specifications make the use of gases from many other supply sources possible, thus facilitating gas exchanges as well as increasing flexibility and security of supply.

EUROMOT has included the next paragraph in their position paper:

> "As an alternative approach the engine sector strongly advocates the concept of proper gas treatment at each point of reception of imported gas in Europe to address these issues".

In the case that only one gas quality specification was developed for all Europe, Enagás would suggest that incentives are introduced to encourage gas treatment upstream and not at the reception points.

EUROMOT has also included this paragraph: "EUROMOT urges to take into account further important parameters – such as the Methane Number – when setting gas specifications". This would mean more restrictions which are not required in our system, since our operation system has not experienced any inconveniences.

C.7 *Are there any specific circumstances that should be assessed in detail?*

Cost allocation and recovery / responsibilities should be assessed in detail.

The most cost-efficient solution would probably be gas processing upstream at source.

The installation of gas processing facilities should not be an obligation for infrastructures operators. Offering such additional services to market participants should be a choice for the operators.

However, in the case that infrastructures operators were obliged to invest in gas treatment facilities, a key principle should be that the regulators ensure that these additional costs (investments in blending facilities, operational costs, etc) were recovered by infrastructure operators from downstream users, independently of the use of these facilities.

C.8 *Do you consider that the data used to undertake this analysis is sufficient to support the conclusions presented in this report?*

The main conclusion is very general and states that a net benefit would not materialise from harmonisation of Europe's gas quality to EASEE-gas specifications without any consideration of adjustment of that specification. Therefore, although this report was based on different assumptions, thus introducing a large uncertainty to the results (this is warned in the executive summary of the document), as well as the fact that it contains some errors, the data used could be considered as indicative.

C.9 ***Should significant effort be made to improve the data used in the analysis presented in this report?***

See General notes.

C.10 ***Do you have access to further data that could (if it were made available) improve the quality of the data used in the analysis presented in this report?***

The results of GasQual's work to discharge phase 1 of the mandate M/400 to CEN would be expected to improve the data inputs to this study.

C.11 ***Can you provide typical detailed gas composition at cross border points?***

Yes. Enagás may provide historical records on gas quality in the Spanish system.

However, historical records on gas quality must be approached with caution: it must not be inferred that gas qualities registered in the past will be maintained in the future.

C.12 ***If so, can this data be made available (respecting confidentiality, as required)?***

The EC has included in the point 3.1.2 of the Transparency Guidelines (Decision of 10 November 2010 amending Chapter 3 of Annex I to Regulation (EC) No 715/2009 of the European Parliament and of the Council on conditions for access to the natural gas transmission networks) the next paragraph:

> "if relevant for access to the system, for all relevant points as defined in paragraph 3.2 of this Annex, a specification of relevant gas quality parameters, including at least the gross calorific value and the Wobbe index, and the liability or costs of conversion for network users in case gas is outside these specifications"

Therefore, information about this data can be found in the TSOs websites (see www.enagas.es for data on the Spanish system).

Furthermore, in the ENTSOG Transparency Platform (http://www.gas-roads.eu/) detailed gas composition at cross border points can be obtained.

C.13 ***How should data be collected for such a study?***

If a questionnaire is developed, it should be ensured that the vast majority of stakeholders receive it and are aware of the importance of the process.

Bilateral meetings with different stakeholders.

Organisation of Workshops.

Stakeholders' Websites.

D. Specific remarks on the report

- Page ii – Executive summary

  Enagás doesn't agree with the next sentence "neither shippers nor the transporters are in control of the quality of gas within the network", see the answer to the question C.5.

- Page 1 – Introduction

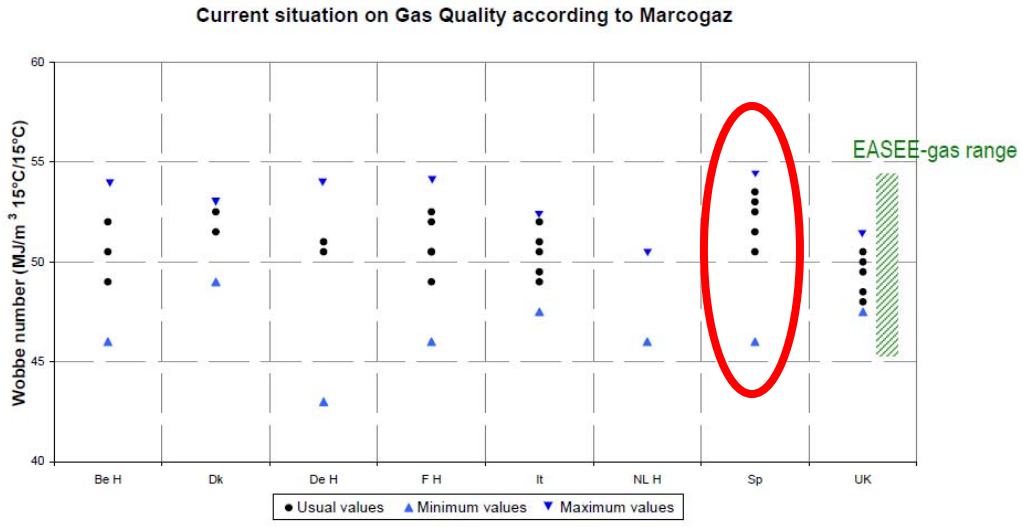
  In the paragraph: "Against this background, a process has been launched with a view to creating a comprehensive and as complete as possible inventory of existing interoperability problems at points relevant for the single European gas market. This has been done in the study called 'an Inventory on Interoperability Issues on the EU Internal Market for Gas'. **The inventory is now being turned into an interactive database by GIE in cooperation with the Commission**."

  Although, Enagás is an active member in GIE, we are not aware of the existence of this inventory. We understand, however, that this passage may make reference to the work conducted previously by GIE and incorporated currently in ENTSOG's Transparency Platform.

- Page 4 – Figure 3.1. Chart comparing Wobbe Index specifications for EU countries

  The reference temperature used for this chart is missing.

- Page 6 – Figure 3.3 Chart of Wobbe Index specification and typical values for distributed gas



Source: Marcogaz

Although, the current gas supply range in Spain is narrower than our national specifications, Enagás fully supports to keep the current legal range (the same as the one established by EN 437), since gas supplied to our system from our entry

points might be outside the range measured in the transmission-distribution connection points.

- Page 8-10 – Table 3.4 – Spain

  HC ºC: 5 at 1-70 bar

- Page 16 – Table 5.1 – Additional Processing Matrix

  Gas flowing from Spain to Portugal and from France to Spain were not taken into account.

- The page 28 shows the estimated cost of replacing all of the domestic appliances in Europe amounts to approximately 132 billion Euros. It seems an error in this calculation, since one of the main assumptions of this report was the adoption of EASEE-gas specifications in EU, and figure 3.1 and table 3.4 support that Austria, Belgium, France, Germany, Greece, Hungary, Ireland, Poland, Portugal, Spain and Sweden already operate with gas specifications very close to that of EASEE-gas or wider. Consequently, very minor changes to the EASEE-gas specification would mean that no modifications of equipment would be required in some of these countries, significantly reducing this cost.

  In any case, if we assume as right the conservative Option 1, we completely disagree with Option 2, partial replacement. In Spain most of gas appliance has been certified to fulfil EN-437 and the working experience of more than 20 years shown that no systematic accidents has happens due to the utilisation of natural gas with a wider range specification than EASEE-gas CBP. So this is an overly conservative calculation of partial replacement cost. On the other hand, it seems to be not realistic that the cost of partial replacement will be the 88 % of complete replacement.

  Possibly, the same can be applied to other types of appliances. For instance, many modern gas burner, as the one used in industrial steam/hot water boiler, has an oxygen sensor in the flue gases, associated to the control unit, in order to adjust the excess of combustion air for improving the efficiency, so this type of burners do not need to be modified. Moreover, in real world Wobbe does not change from 45.65 MJ/sm3 at night to 54.70 MJ/sm3 in the morning.

  In any case, taking into account the estimated benefits of harmonisation (€0.2 bn/y) assuming a replacement cost 100 times lower (€1.788 bn) and lower processing cost, the result of the study will be the same.