Answer

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Study on Interoperability - Gas Quality Harmonisation - Cost Benefit Analysis

Dear Ladies, dear Sirs,

this answer is on behalf of DVGW, Deutscher Verein des Gas und Wasserfaches e.V. (German association of gas and water experts). Entitled by the German federal energy law, we are in charge for formulating and issuing the technical rules for the pipeline-based supply with combustible gases in Germany.

The underwriter is also involved in the European efforts to harmonize gas quality as issued by mandate M 400 of DG ENER by actively participating in the work of CEN/BT/WG 197 and CEN/TC 234.

To start with the answer, some general remark onto the draft “Study in interoperability – Gas Quality Harmonization – Cost Benefit Analysis”. To have a closer look onto the financial aspects of such an activity as gas quality harmonization is always a good thing to do and thus is welcomed by DVGW. Although the gas quality is sufficiently ruled in Germany by DVGW code of practice G 260 “Gas quality” since the 1930ies (with regular revision and amendment), which means that from a purely national point of view Germany wouldn’t need any European standard in this field, a harmonization of gas quality on an European level could bring some advantages, including progress in the European integration process. Thus, DVGW does not oppose such an effort in principle.

However, as a base for decision the current draft of the study does not only completely disregard this spirit of European integration. It also is based on a number of assumptions we cannot support because we note a substantial lack of facts and mistakes is the data used for procurement, leading to sever doubts to the overall conclusion.

Now to the consultation questions

Do you agree with the high-level conclusions of this report?

No, because the assumptions made do not appear correct. Examples:

- It is assumed that all gas appliances need to be exchanged because the EASEE-gas specification is wider than existing regulations. That is true for some countries, but is not wider than the H range, and is actually close to the range of Belgium, France and Germany and narrower than the Spanish range. See categories H and E of EN 437 which gives the frame for the Wobbe-Index over which the appliances in most countries were tested. See also the official declaration of the OJEC. At least for this reason regional harmonisation should be addressed in this report.

- This study is always considering the worst case scenario. It is assumed that the range as defined in the Common business practice of EASEE-gas is the definite and sole basis for harmonization of natural gas H. However, this disregards the results of the GASQUAL project under which a widespread sample of die European gas appliance population has been tested by a number of reknown and certified test institutions. Although there the range of the EASEE-gas CBP was taken as a base, the final result which is currently under preparation may well be that, when a slightly smaller range is chosen, the problems for the vast majority of appliances will diminish, i.e. the assumptions explicitly rejected by the cost benefit study would apply so that many appliances will need no action at all (in particular in countries already applying a wide range), some may need adjustment or replacement of the jets and/or burner assembly, and only those appliance types which were identified as critical in the GASQUAL project may need to be replaced which are far less than the 100 % indicated in the study.

- Some findings of the study are contradicted by field observation. For instance, table 3.4 of the study indicates for the Netherlands a Wobbe-index range of 41.23 – 42.13 MJ/Nm³. The range is true, but it clearly is for the L-gas distributed in the Netherlands to the general public, not the H-gas which in the Netherlands is forwarded to industrial clients only. Further, the study appears to generally identify the need for gas treatment everywhere where national specifications differ from EASEE-gas. For most cases, this is not true.

As a manufacturer do you maintain an inventory of installed appliances?

N/A

Are there any specific gas quality related issues not recognised within this report?

DVGW has developed technical rules for the injection of biomethane and other regeneratively produced gases into the natural gas grid. At the time being, 55 biogas plants are injecting the cleaned and conditioned biogas (= biomethane) into the natural gas grid, predominantly into the low pressure distribution grid. This integration of biomethane is not at all addressed although the EU (DG ENER) issued a standardization mandate (M 475) for this issue either.

Do you manufacturer appliances that can operate over the full EASEE-gas specification without loss of efficiency or increased of emissions?

N/A

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

Infrastructure operators measure the gas quality if meeting existing specifications and reject non-compliant gases. However, some local grid operators use for peak-shaving purposes LPG/air-mixtures on days with extremely low temperature. However, if the portion of propane or butane becomes too large, this will badly affect the methane number of the gas, and care has to be taken that no gas combustion engines (CHP plants, CNG stations) are supplied with such gas mixtures. There have been cases reported in the past where this was not adhered to, leading to immediate engine failure.

Would you support the adoption of the proposed EUROMOT gas quality specification,

No. This specification cannot be met by many present European. Some of the specification's parameters are not applied by the gas industry (ignitability, laminar combustion velocity). In Germany, a standard for natural gas as a vehicle fuel (DIN 51624) is applied by reference in a federal ordinance which is much closer to the gas distributed by pipeline and which can be met by nearly all gases in distribution.

Are there any specific circumstances that should be assessed in detail?

For a number of the issues treated in the report a regional approach instead of the generalizing ones would help to derive conclusions far closer to reality. This concerns mainly the scenarii assumed and applied.

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

No unless the conclusions where there prior to the analysis which we do not hope. As a minimum, the data that are currently being produced under the scope of CEN BT WG 197 should properly be taken into account.

Further, the effects of European harmonization should have taken into cautious consideration. E.g. there is no stipulation whatsoever that, once a range for natural gas H would be agreed by means of standardization, this would need to be implemented in all European countries as soon as the standard is published. In particular for those countries which would encounter such difficulties with adaption of the appliance population as described in the study, a long term implementation scheme could reduce the costs near to nil if the replacement of appliances, if required, would be near the average lifetime of such appliances only by marketing adapted appliances only once the standard is issued. On the opposite, in other countries including the entire core of the European continent the majority of the appliance population would already correspond to a harmonized gas quality if sensibly chosen, taking into account the results of CEN BT WG 197.

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

Yes. Please see above comments. Furthermore the modeling tool is not very good explained so it appears not really transparent to follow up the assessment of the use of data to result in the conclusion.

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?

Yes. The underwriter has in his function as convener of the dissolved CEN/TC 234 WG 9 access to data assembled from different member countries from Europe concerning the required gas quality for grid access. Copyright of this CEN/TR is with CEN, however.

Can you provide typical detailed gas composition at cross border points?

N/A. DVGW is developing and maintaining the technical rules for the gas and gas network in Germany. It is not operating any grid on his own.

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

N/A. Such data can only be provided from grid operators connected to such points, which for Germany is a set of approx. 10 companies.

How should data be collected for such a study?

The collection of data should be oriented at the original resources. It should be ensured that all parts of the questionnaire are simple enough to be understood also by non-native English speakers (as is the majority in Europe) to grant an even base of information.

For DVGW:

Sincerely

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