

16 September 2011

## **Response to the DG Energy consultation Study on Interoperability – Gas Quality Harmonisation**

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

1. We agree with the conclusions of this report. The report mentions the harmonisation towards the EASEE-gas specifications. This specification however does not focus on methane number which is crucial for industrial consumers using natural gas as feedstock and for furnaces as well as for CHP. This number, the Propane Equivalent number (PE), and the rate of quality change are very important quality parameters for gas motors, and also for chemical users of pure methane. Specific numbers can cause severe problems in the electricity supply and in chemical processes. Related costs to prevent these problems are not taken into account in the GL/Pöyry-study.

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

2. IFIEC represents industrial users of gas, so this question is not applicable.

### **Are there any specific gas quality related issues not recognized within this report?**

3. The report did not investigate the effects of the strong or even excessive variations of the gas quality (example: delta Wobbe per second or minute). As a result of the feed-in of several sources of gas with a different gas quality (for instance different LNG-qualities, temporary supply from storages, etc), the gas quality can change suddenly, which can have major impact on the integrity of existing gas installations and plants (non-conformity with design gas quality and design plants), safety (trips and restrictions in start ups and operations of burners, gas turbines, furnaces, boilers, heaters etc), environment (higher emissions, non-conformity with permits) and loss of efficiency and production capacity.
4. IFIEC believes there should be explanation, comment and recommendations regarding the Methane number and the Propane Equivalent number (PE).
5. The impact on low caloric gas (specially for 'Groningen gas') needs to be covered..
6. Chemical companies using natural gas as feedstock need clear specifications and means of short-term correction in case of high variations, and to be able to anticipate the long-term gas quality in order to be able to make necessary investments.

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

7. Although this question is applicable for manufacturers of gas fired industrial equipment we can confirm that full EASEE-gas specification will have a major impact in lowering the efficiency and increasing the emissions.

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

8. Currently, we receive a gas quality with limited variations. Based on variations related to EASEE gas, experiences on a laboratory scale indicate that changes can cause serious damages and failures. When the methane number becomes lower than 80, damage may occur. Even with MN at 80, some chemical plants are unable to run. A high PE-number might also cause problems with comfort heating appliances.

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

9. Partly. The specification is more complete than the EASEE gas specs, especially with the introduction of the Methane Number. Nevertheless, the range (i.e. 80-100) is still too large and does not accommodate currently installed facilities of some industrial companies, especially those chemical companies using gas as feedstock. However, IFIEC points out that the rate of variation of the Wobbe index needs to be added. The maximum variation is mentioned, but not the change rate (level of change in seconds or in hours).
10. Furthermore IFIEC believes that the Wobbe bandwidth is too large. Appliance constructors state that they could handle a bandwidth of  $\pm 5\%$  around test gas G20 for save operation.

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

11. IFIEC believes that there are three principal criteria:
  - 11.1. Excessive variations of gas quality;
  - 11.2. All circumstances that can violate safety;
  - 11.3. Effects on equipment that does not have continued measurements of air/fuel ratio and control.
12. IFIEC would welcome a paragraph on the issue of what countries should do when different gasses from different locations enter their geographical market. This is a situation which will occur in the near future when domestic supply is running out and import flows increase. Efficiency should be realised in the gas chain: supplier, grid operator, shipper, end user. The question of the relationship between the best specification with the lowest overall cost for society (grid operators and grid users) should be required to be shown.

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

13. We support the conclusions. Moreover we endorse that there is insufficient information available on all potential impacts which means that the effects could be even more negative for end users.

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

14. IFIEC believes that comments made above suggest that there is scope for data improvement.

**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?**

15. There is always scope for better data, particularly when a new framework is being developed within a market context and IFIEC is available to discuss this further.

**Can you provide typical detailed gas composition at cross border points? If so, can this data be made available (respecting confidentiality, as required)?**

16. These questions are applicable for Transport System Operators (TSO's).

**How should data be collected for such a study?**

17. Again, this is a matter for TSO's but IFIEC believes that customers should be represented in any assessment.