

## CONSULTATION QUESTIONS

Invitation to respond

We welcome any feedback that interested parties may wish to make regarding this report. In particular we seek responses to the following questions:

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

1.1 No. The Danish study described in the accompanied document has identified several benefits in terms of environment effects and several costs have been reduced due to adjustment of appliances rather than replacements.

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

2.1 Not applicable

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

3.1 The study includes gas treatment facilities for H<sub>2</sub>S and O<sub>2</sub> which do not seem to be a real issue regarding gas quality barriers due to the fact that almost all European gas is sufficiently low on both parameters.

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

4.1 Not applicable

**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?**

5.1 No. Most appliances in Demark were originally installed while the allowed wobbe index range was smaller than today. The widening of the specification has not resulted in any damage or malfunctioning.

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

6.1 No, it is unnecessary narrow in wobbe index

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

7.1 In the coming years a trend of injecting upgraded biogas within the European grids will come. This should preferable be included in the study.

7.2 The possibility of adjustment of appliances should be investigated more in detail

7.3 The transition to a common gas quality specification could be introduces in steps which could reduce the costs for replacement significantly

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

8.1 No

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

9.1 Yes

**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?**

10.1 Yes. Energinet.dk has a detailed mapping of the total environmental effects and efficiencies of all installed appliances in Denmark as a function of the expected gas qualities.

10.2 Additionally Energinet.dk have a well functioning cost-benefit model for the Danish case

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

11.1 Yes

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

12.1 Yes

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

13.1 Through relevant organisations like ENTSOG or Marcogaz