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| Appendix 1 |

Quality and delivery specifications

1st October 2024

Natural Gas received, transported and redelivered in the Danish Gas System under a Capacity Agreement or storage agreement shall at all times comply with the Danish gas regulation (Gas sikkerhedsloven) and the following Quality Specifications.

# Quality Specifications

**CO2:** The CO2 content of the Natural Gas shall not exceed 2.5 mol-%.

**Dust and liquids:** The Natural Gas shall be technically free of gaseous, solid or liquid substances to the extent that this may involve a risk of blocking and malfunction or corrosion of ordinary.

**Gas installations and standard gas equipment:** This provision does not apply to such liquid formation that occasionally occurs in Natural Gas in the form of very small droplets and that cannot be removed from it.

**Hydrate formation:** The Natural Gas must not form hydrates at temperatures of minus 8 oC or higher at any pressure up to 70 bar absolute pressure.

**Hydrocarbon dew point:** The Natural Gas must not form liquid hydrocarbons at temperatures of minus 2 oC or higher at any pressure up to 70 bar absolute pressure.

**H2:** Traces of hydrogen up to 500 ppm may be present in gas in the Transmission System due to reverse flow from the Distribution Network at the Transition Point. However, under extraordinary operating conditions in relation to the production of Renewable gasses the hydrogen content may for a period of 8 hours constitute up to 1000 ppm and for a period of 1 hour more than 1000 ppm but less than 2000 ppm.

**H2S and COS:** The content of H2S + COS in the Natural Gas measured as sulphur shall not exceed 5 mg/m3. However, under extraordinary operating conditions in relation to the Entry Points, the Exit Points and the Storage Points, the H2S + COS content may for a period of maximum 2 hours constitute up to 10 mg/m3, although not more than 5 mg/m3 on a 24-hour basis.

**Mercaptans:** The mercaptans content of the Natural Gas measured as sulphur shall not exceed 6 mg/m3.

**Odorisation:** The Natural Gas shall be delivered unodorised at the Entry Point. Odorisation of the Natural Gas shall take place at the Transition Point when the Natural Gas is delivered from the Transmission System to the Distribution Network. Traces of odorant up to 1 mg/m3 may be present in gas in the Transmission System due to reverse flow from the Distribution Network at the Transition Point. However, under extraordinary operating conditions in relation to the reverse flow facilities increased levels up to 2 mg/m3 for a period of up to 24 hours may occur.

**Other components and contaminants:** The Natural Gas shall not contain other components and/or contaminants to an extent which may imply that it cannot be transported, stored and/or marketed without further adjustment of the quality or treatment of the Natural Gas.

**O2:** The O2 content of the Natural Gas shall not exceed 0.1 mol-% on a 24-hour basis for the Entry Points and the Storage Points. The O2 content of the Natural Gas/Bio- methane shall not exceed 0.5 mol-% for the Transition Points and the Metering Points for Bio- methane.

**Relative Density:** The Relative Density of the Natural Gas shall not be lower than 0.555 or higher than 0.7.

**Total sulphur content:** The total sulphur content shall not exceed 30 mg/m3.

**Water dew point:** The water dew point of the Natural Gas shall not exceed minus 8 oC at any pressure up to 70 bar absolute pressure.

**Wobbe Index:** During normal operation the Wobbe Index for the Natural Gas shall not be lower than 50.76 MJ/m3 or higher than 55.8 MJ/m3. During abnormal state of operation, the Wobbe Index for the Natural Gas shall not be lower than 50.04 MJ/m3 or higher than 55.8 MJ/m3 and requires a preparedness plan that is approved by The Danish Safety Technology Authority (Sik- kerhedsstyrelsen). A preparedness plan for the Entry Point at Ellund has been approved.

The gas quality of Renewable Energy Sources shall fulfil all requirements from the Danish gas regulation regarding biomethane and E-methane.

# Delivery specification

**Temperature:** The temperature of the Natural Gas during normal operation shall be no lower than 0 °C and no higher than 50 °C; however, under extraordinary operating conditions or due to bona fide technical circumstances, the temperature of the Natural Gas may be as low as minus 10 °C for periods of up to two hours.

# Revision of Appendix 1

This Appendix 1 is subject to regular revision by Energinet, Gas Storage Denmark and the Distribution Company in step with changes in the General Terms and Conditions for Gas Transport and/or changes in the quality and delivery specifications typically applying in Europe.