

## The Danish Government's response to the European Commission's public consultation on the Hydrogen and Gas Market Decarbonisation Package

### Danish key priorities for the Hydrogen and Gas Market Decarbonisation Package

- **An efficient green transition of the gas system**
  - *Modernization of the gas market legislation to support the decarbonisation of the gas sector through a market for green gasses and by phasing out fossil energy.*
  - *Integrate rules for pure hydrogen systems in existing (natural) gas legislation*
  - *Provide level playing conditions for various types of gas (harmonised classification based on climate friendliness)*
  - *Tap into existing knowledge of ENTSO-G to facilitate sufficient planning of conversion to hydrogen and gas quality compatibility*
  
- **A common framework for a transparent and non-discriminatory market for hydrogen and other green gasses**
  - *Draw up guidelines for pure hydrogen which are suited for the maturity of the hydrogen market*
  - *Provide sufficiently flexible rules to facilitate the hydrogen market*
  - *Utilise competence of NRA's to provide flexibility for the emerging hydrogen market through the possibility of temporary exemptions*
  - *Member States must find their own model for hydrogen transmissions system operators*

### **Danish support to decarbonisation of the gas market**

The Danish Government welcomes a revision of the gas market legislation. It is important that the revision supports a decarbonisation of the EU energy system and will be in line with the climate target of at least 55 pct. by 2030 and climate neutrality by 2050. Gas market legislation should be modernized to support the decarbonisation of the gas sector by paving the way for a market for green gasses such as biogas and hydrogen and phasing out fossil energy, including unabated natural gas.

Overall, Denmark supports European Commission's proposal for the development of a hydrogen market from the natural gas market. The market should be transparent, supporting a level playing field and sector couplings (e.g. between energy generation and transportation) and with a strong focus on renewable hydrogen. Appropriate regulation must take into account the maturity of the hydrogen market. Thus, the EU



should aim for gas market legislation embracing cross-border trade of flammable gasses, whether they are biogas/methane based or pure hydrogen.

### **Conversion of the gas market through green gasses and hydrogen regulation**

To achieve the goal of climate neutrality by 2050, a full decarbonisation of Europe's energy supply is required. This entails a phase-out of fossil energy, including unabated natural gas.

To achieve decarbonisation, the natural gas system, including the established infrastructure, can play an important role. Converting the natural gas system by expanding the energy infrastructure will enable renewable energy such as biogas and renewable hydrogen to flow freely throughout the EU. This can also offer long-term solutions for storing and distributing renewable energy.

In this regard, legislation for natural gas should take account of new hydrogen systems. As there is currently no cross-border hydrogen market, gas regulation should set the rules for such cross-border trade. Since hydrogen is a gas, capable of transport and storage in a similar manner as biogas/methane, Denmark suggests incorporating cross-border hydrogen in the Gas Directive and Gas Regulation. Here, there is need for a well-functioning internal market with harmonized standards if the principles used for gas market legislation are to be extended to hydrogen.

Consequently, it should be possible to exchange and transport gas across borders. This is the case for Denmark and our production of biogas. Biogas is produced in Denmark and is being upgraded to match the natural gas quality before being brought into the gas system. This makes the renewable gas transportable across the entire Union. The same approach should be able to extend to hydrogen.

Moreover, if considering the possibility to blend pure hydrogen in the existing gas mix, it is vital for the green transition of gas markets to ensure that the existing gas market legislation encompasses this transition. Denmark suggests the conversion of the biogas/methane infrastructure to pure hydrogen by establishing a single legal framework with a long-term goal of establishing common legislation.

It is also important that gas market legislation can cover different scenarios, if the specifics of the green transition are not yet determined. A shift to pure hydrogen may not happen. A substantial part of Denmark's gas consumption (approx. 20 pct.) is covered by upgraded biogas (renewable methane). The upgraded biogas blends well with the fossil natural gas so the share of renewable biogas may increase substantially. In Denmark, our ambition is to increase the share to fifty-fifty by 2030. Blending of methanised green hydrogen is another pathway towards renewable gas.

### **Rules for pure hydrogen must follow the maturity of the hydrogen market**

Full incorporation of the rules from both the electricity and gas market should be the long-term goal for a mature hydrogen market. However, it might prove a barrier for



an upcoming hydrogen market. When creating rules for pure hydrogen systems, these should allow for sound level playing field exemptions. They should, however, not damage cross-border competition.

Thus, it is vital, that whilst addressing the long-term goals by incorporating hydrogen rules into the existing legal gas framework, there should also be an option for temporary exceptions. Denmark proposes that common gas market legislation – for both biogas and hydrogen – should address whether a specific known rule from the electricity and gas market is immediately applicable for pure hydrogen. The possibility for exceptions will thus address the maturity of the hydrogen market.

Such an approach is a feasible way forward but is only possible if there is a strict requirement for approval and scrutiny by the national regulators. This entails a coordinated approach to exceptions through the European Union Agency for the Cooperation of Energy Regulators (ACER) and the Council of European Energy Regulators (CEER). At the same time, Denmark foresees the need for thresholds for when an exception is disrupting the functioning of the internal market – or other sound principles known from exception rules in the Gas directive Art. 36 and Art. 49 a.

Here, thresholds for exceptions etc. should follow the procedure known from network codes (through the European Network of Transmission System Operators for Gas (ENTSO-G) and subsequent approval of Member States), as a coordinated approach to exceptions needs a political mandate, which national regulators are not able to provide by themselves.

### **Role of ENTSO-G and hydrogen**

Denmark also finds a need to tap into the existing knowledge embedded in the ENTSO-G. It is vital that the ENTSO-G ensures a harmonised approach to planning and security of supply in the hydrogen sector. Especially when considering that methane pipes could be converted.

Even though Denmark finds the need for the ENTSO-G to play an active role, and subsequently also the gas transmission system operators, it should still be a matter of national competence to decide who should own and operate pure hydrogen systems. It should be incorporated into the legal framework that Member States retain their national competence to appoint owners and operators of hydrogen systems.

### **Facilitating the transition**

It is of vital importance to Denmark that there is a strong focus on renewables. At the same time, Denmark recognises that there is currently work in progress with low-carbon gas and other decarbonised gasses, which are not renewable, but could lower the carbon footprint of the existing gas sector. On this subject, Denmark would like to see a clear and uniform classification of energy forms. Thus, for cross border trade to function, Member States need to have the same classification of various types of gas to ensure a focus on renewable gasses.