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## Stellungnahme

# ISCC consultation on mass balancing

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Der Bundesverband der Energie- und Wasserwirtschaft (BDEW), Berlin, und seine Landesorganisationen vertreten mehr als 2.000 Unternehmen. Das Spektrum der Mitglieder reicht von lokalen und kommunalen über regionale bis hin zu überregionalen Unternehmen. Sie repräsentieren rund 90 Prozent des Strom- und gut 60 Prozent des Nah- und Fernwärmeabsatzes, 90 Prozent des Erdgasabsatzes, über 95 Prozent der Energienetze sowie 80 Prozent der Trinkwasser-Förderung und rund ein Drittel der Abwasser-Entsorgung in Deutschland.

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## 1 Distinction between the liquefaction of biomethane

The BDEW appreciates the opportunity to comment on the ISCC EU Mass Balance Guidance Document. We are submitting the following consolidated feedback on behalf of our association. Our statement refers to the mass balancing of biomethane. Above all, a European standard for converting the gaseous part of biomethane should be established, as there is currently a wide variety of approaches across different countries, and even within the same country.

All economic operators are required to fulfil the requirements of mass balancing in accordance with Art. 30. We take a cautious view regarding the fact that ISCC does not make a clear distinction between the liquefaction of biomethane using the gas grid to transport the biomethane from the biomethane production plant to the liquefaction facility (=grid liquefaction) and the virtual liquefaction at LNG terminals (=virtual liquefaction) in section 3.2.3 on biogas/biomethane.

In our understanding, there are three pathways for the liquefaction of biomethane:

### Scenario 1: Direct liquefaction

### Scenario 2: Grid liquefaction

### Scenario 3: Virtual liquefaction

With **direct liquefaction**, the transport occurs via a direct pipeline from the biogas installation to the liquefaction facility for actual liquefaction without the step of transporting the biomethane via the EU gas grid. The basis of **the grid liquefaction** is also the actual physical liquefaction, including the physical transfer/transport of biomethane using the EU interconnected gas grid and therefore an actual withdraw of biomethane from the gas grid at the liquefaction site. The biomethane has been injected into the gas grid at the biogas/biomethane production facility. **Virtual liquefaction**, on the other hand, involves a mere transfer of sustainability attributes from biomethane injected into the EU gas grid at a biogas/biomethane production facility towards fossil LNG which is imported into the EU via an LNG import terminal.

These three scenarios should be distinguished more clearly by the Voluntary Schemes in order to ensure the clear and accurate calculation of Emission E within the Chain of Custody. ISCC has clarified under ISCC EU 203 Traceability and chain of custody that a virtual transfer of sustainability attributes is only permitted if a 'conversion factor' is included under virtual liquefaction that reflects the emissions when actual liquefaction takes place:

*'The transfer of sustainability characteristics from biomethane to Bio-LNG on a mass balance basis is possible, if **plausible conversion factors and GHG emissions that would have been generated in case of a liquefaction are taken into account.**'*

To the best of our knowledge, this is not currently the case with virtual liquefaction at LNG terminals. Among other things, emission values of less than 0.3 gCO<sub>2</sub>eq/MJ are disclosed; we are unable to reconstruct the use of this emission values as a conversion factor for the liquefaction of methane, especially when taking into account the emission factor of the EU electricity mix. Furthermore, the emission value does not take into account the additional energy and thus the emissions that should be taken into account for the actual liquefaction of natural gas to LNG at an export terminal and its further transport by vessel to a European LNG import terminal. Consequently, in our view, the upstream emissions that are part of the chain of custody are not included in the process of virtual liquefaction.

We recommend reviewing the chain of custody of virtual liquefaction. The description of the model ends with the transfer of the sustainability attributes to the fossil LNG at the LNG terminal. It is not clear to which country the 'fossil emissions' of the LNG upstream chain and the emissions of the fossil natural gas are allocated when the 'virtual swap' of the biomethane attribute and the LNG/natural gas attribute of the emissions takes place. There is a risk that the fossil emissions from the production, liquefaction, transport and utilisation of fossil LNG will not be allocated to any country in despite being imported into the EU. Such a lack of transparency could lead to virtual liquefaction being accused of 'greenwashing' fossil LNG by purchasing green biomethane certificates.

In order to ensure credibility and regulatory integrity, it is therefore essential to define specific allocation criteria for the emission accounting. These criteria have to ensure that all greenhouse gas emissions are included completely and accurately in the national inventories. In addition, the extent to which harmonisation of the accounting mechanisms at EU level is necessary should be examined in order to close remaining loopholes and prevent the misuse of virtual liquefaction to shift and conceal emissions. Only a transparent and comprehensible regulation can ensure that virtual liquefaction actually contributes to a measurable reduction in greenhouse gas emissions.

## **2 Definition of economic operators trading biomethane**

To align with the ISCC traceability requirements and mass balance principles, economic operators trading biomethane (except final customers) shall:

1. be certified as traders under the ISCC or other recognised voluntary scheme;
2. have a status of 'network users' within the meaning of the [EU-Directive](#) directly or via an agent in any of the entry-exit systems within the geographic boundaries of the interconnected gas infrastructure. In practice it means that an ISCC certified trader (or trader certified under other recognised voluntary scheme) typically has a

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‘shipper code’ assigned to network users in the natural gas market.

The trade (sale and purchase) of biomethane involves the transfer of ownership of biomethane, including the Proof of Sustainability (PoS) and the equivalent amount of gas. This gas can be exchanged and traded at the Virtual Trading Point to comply with gas market rules, such as daily balancing. According to the Gas Directive, the Virtual Trading Point (VTP), also known as a gas hub, is a non-physical commercial point within an entry-exit system where natural gas is exchanged between a seller and a buyer without the need to book capacity (i.e. “Commercial Domain”).

### 3 Roles and flows in the biomethane value chain

We propose the following addition to chapter “3.2.3 Biogas/Biomethane: Mass Balance System Boundaries” on page 15 instead of “VTP (1)” and “Physical Transfer (2)”:

1. **Physical injection of biomethane.** Biomethane producers inject biomethane into the gas Distribution System Operator (DSO) network. DSOs manage the gas network, oversee physical gas flows, and can play a role in verification of the mass balance through metering at injection points and confirming injected volumes.

NOTE: if the biomethane plant is connected to the network of a Transmission System Operator (TSO), this TSO can perform the same task of metering at injection points and confirming injected volumes.

2. **Operational offtake of gas injected into the grid from the biomethane plant.** In cases where biomethane producers are not equipped to handle the responsibilities of network users in the gas market such as balancing in the gas grids and selling gas directly at the Virtual Trading Point (VTP), those responsibilities are transferred to gas offtakers, who manage contracts with network operators, book capacity e.g. to access VTP and balance the gas portfolio. At this point, it should be noted that due to the lack of European harmonization regarding the requirements for mass balancing, various practices emerged, potentially undermining the level-playing field. Therefore, we encourage an in-depth dialogue with the industry to develop a long-term solution for implementing mass balance in a manner that aligns with the functioning of the gas market.

NOTE: In points 2 – 4, natural gas means gas of non-renewable origin (usually called ‘fossil’, ‘grey’ gas).

In line with the gas market rules, contractual arrangements between biomethane producers and local natural gas offtakers require transfer of ownership for the

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amount of gas injected into the gas network. These arrangements do not grant any rights to make claims related to the origin, sustainability, or GHG emissions saving characteristics of the gas. This gas will be distributed down the value chain and can be resold at the VTP as natural gas (see 2a in figure 12). No environmental attributes of biomethane or sustainability documentation will be transferred to local natural gas offtakers.

NOTE: Daily balancing rules applicable in the EU (see [312/2024](#)) make network users responsible for balancing their balancing portfolios in order to minimise the need for transmission system operators to undertake balancing actions. This obligation inter alia implies a need to buy and sell gas within the gas day, thereby, requiring from the local natural gas offtaker to take ownership of gas off-taken from the biomethane producer (marked as 'natural gas').

3. **Offtake of biomethane (PoS + gas).** When a consignment of biomethane is produced and injected into transmission or distribution gas infrastructure, it enters the single mass balance system. Its sustainability and GHG emission saving characteristics can be documented via a Proof of Sustainability (PoS) and forwarded down the value chain along with an equivalent amount of gas. This volume can only be certified and claimed by the producer as biomethane once, ensuring no double disclosure or double marketing of the same attributes.

To enable transfer of attributes and sustainability documentation (PoS), biomethane producers conclude contracts with certified traders. Under such contracts, the title for PoS and associated claims can only be transferred in conjunction with an equivalent amount of gas. This typically requires the biomethane producer to reacquire such amount of gas from the VTP (directly or via an agent) to restore the amount of gas in its mass balance inventory, due to the necessary operational arrangements outlined in point 2.

Since the purchase of gas in the natural gas market is associated with balancing and other network users' responsibilities (as explained in point 2), biomethane producers are allowed to arrange a so-called 'gas swap' as part of their biomethane offtake contract with the certified trader. In this arrangement, a certified trader (acting as both gas trader and network user) can sell the amount of natural gas equivalent to the quantities in PoS and, therefore, quantities injected into the gas grid (as described in point 1) to the biomethane producer, e.g. at the VTP. This often results in gas transfers being netted to zero, often eliminating the need to submit trade notifications to the gas TSO.

Once the PoS and the equivalent amount of gas has been sold, the biomethane producers' PoS inventory balance is reduced accordingly, and the traders' PoS mass balance is increased accordingly.

NOTE: Trade of biomethane between certified traders may follow the same principles as explained in point 2 and may include contractual arrangements for the 'gas swap', according to which the trader down the value chain can buy biomethane as a bundled product (i.e. PoS and equivalent amount of gas) and then immediately sell gas as natural gas back to the counterparty.

4. **Sale of biomethane to the final customer.** In line with the principles above, the sale of biomethane to the final customer can be facilitated by a certified trader, who can sell biomethane to a final customer connected to the gas TSO or local DSO network. The final customer does not need to be certified under ISCC or any other recognised voluntary scheme. The contractual arrangement for the sale of biomethane will include the title transfer for PoS and an equivalent amount of gas. There are two possible variations at the stage:
  - 4a. the final customer may purchase gas at the VTP and ship it to the point of physical gas withdrawal from the TSO or local DSO network (directly or via an agent); or
  - 4b. a gas swap can be arranged at the VTP between the final customer and the certified trader if the final customer has a local gas supplier holding a gas retail licence who can ship and deliver the equivalent amount of gas to the point of physical withdrawal.
5. **Physical withdrawal of gas.** The final consumer offtakes physical gas from the DSO (or TSO) network to which their end-use installations are connected. DSOs and TSOs can play a role in verifying the mass balance by metering at the withdrawal points and confirming physically consumed volumes.

#### 4 Specific proposals for Amendments

- › Page 5: Feedstock categories: The ISCC refers to various feedstock categories, such as food and feed crops, biofuels with low ILUC (Indirect Land Use Change) risk, high ILUC risk crops, Annex IX A (sub-target with a 2x multiplier), and Annex IX B (IX B cap with a 2x multiplier). There are also other sustainable feedstocks with no target, caps, or multipliers. It would be appreciated by the market if these categories were uniformly applied across EU Member

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States (MS) and their nationally implemented schemes. To support a pan-European market, a clearly defined list of feedstocks with number-codes rather than words would be helpful.

- › Page 13: At these points, we shall observe a physical flow of sustainable molecules.
- › Page 15: In Scenario 1 (Figure 13), Bio-LNG production occurs at a physical liquefaction facility, where biomethane is converted into liquefied biomethane (Bio-LNG). This applies to liquefaction units located at a biomethane plant site, for example. In this case, claims of Bio-LNG production must be directly linked to an actual, verifiable liquefaction process. The new PoS must account for conversion factors, process losses, and GHG emissions from liquefaction from atmospheric conditions to cryogenic conditions and transport emissions from the biomethane injection to the liquefaction and from the liquefaction to the end-user.
- › Page 16: Figure 14: The Single Logistical Facility (SLF) comprises the entire interconnected gas infrastructure within Europe. This figure is misleading as it defines the EU Interconnected Gas Network and not the SLF. It should be clarified that all facilities belong to the SLF. In our opinion, this additional definition of the EU Interconnected Gas Network is not necessary with regard to the applicability of the mass balance and leads to further ambiguities.
- › Page 16: The quantity of Bio-LNG or biomethane that can be claimed from a plant is limited to the amount that can physically be processed by the plant.
- › Page 16: Presentation of a new Scenario 2: Liquefaction of biomethane by withdrawing biomethane from the gas grid at a liquefaction facility. Scenario 2: Mass-Balancing / Grid Liquefaction.
- › Page 16: A European standard for converting the gaseous part of biomethane should be established, as there is currently a wide variety of approaches across different countries, and even within the same country.
- › There is a need for standardization regarding the document proving the injection of biomethane at the metering point. For example, in Germany, no Guarantees of Origin (GoO) is issued, whereas in other countries, a GoO is typically issued. An EU-wide system for GoO which replaces existing mass balance schemes for biomethane would be a welcome development.