Consultation 66 report

Update for the injection of compatible and non compatible gases in the methane network

1. Introduction

In a continuous effort to further improve its service offering for network users, Fluxys Belgium consulted the market from 17th November 2023 to 8th December 2023 on the following changes:

(i) Introducing the new domestic points for injection
(ii) Introducing a capacity type conditional for entry capacity at domestic points for injection
(iii) Reviewing the quality conversion to H service for the injection of H_2/natural gas blends and biomethane
(iv) Reducing the Wobbe Index range and introducing global and local quality specifications at domestic points for injection
(v) Simplifying the calculation for capacity exceeding fee
(vi) Removing all the references to OCUCs and wheelings
(vii) Removing all references to the Electronic Booking System (EBS)
(viii) Minor changes to the Standard Transmission Agreement and Access Code and various minor editorial changes.

2. Consultation process

Fluxys Belgium launched this market consultation by publishing the proposed changes in the regulated documents on its website – at the usual location for such consultations, supported by an announcement on the homepage – and via direct e-mailing to all registered market participants and associations.

From November 17th to December 8th 2023, stakeholders were invited to submit their written feedback and, if needed, to seek additional information through bilateral contact with Fluxys Belgium.

3. Outcome of consultation process

All comments received are listed in the appendices of the present report. 3 Feedbacks were received from 1 end user and 2 representing associations and are summarised below. One of the respondents required its answer to be kept as confidential.

i. Introducing the new domestic points for injection

One respondent recognizes that the distinction between 'end-users' and 'local producers' with the corresponding distinction in domestic points ('end-user domestic points' and 'domestic point for injection') creates clarity in the commercial entry/exit model.

Another respondent asks clarification on how the applicable quality specification shall be determined for domestic points for injection and how this information will be transmitted to network users and local producers.

Determining the applicable quality specification (ACT Attachment C4 12a or 12b) for a certain domestic point for injection shall be integrated in the feasibility study that Fluxys Belgium conducts in order to make a commercial offer to a candidate local producer. The evaluation is done based

on the required injection capacity and consists of evaluating the part of the network that will be affected by the gas injected by the candidate local producer.

ii. Introducing a capacity type conditional for entry capacity at domestic points for injection

One respondent endorses the introduction of the conditional capacity type for entry capacity at domestic points for injection.

Another respondent inquires on the tariff that shall apply on conditional capacity arguing that it should benefit from a discount compared to the firm capacity tariff to reflect the probability of the service not being available. Fluxys Belgium confirms its intention to offer 20% discount for the conditional capacity tariff, like it is the case for interruptible and backhaul capacity tariffs.

iii. Reviewing of the quality conversion to H service for the injection of H_2/natural gas blends and biomethane

A respondent requests clarifications on the offer and on the allocation of the quality conversion to H service at domestic points for injection as it seems not to be clear enough in proposed documents.

Firstly, quality conversion to H service is offered only at network locations where there is a continuous flow of H-gas that can serve for the blending. This opportunity is evaluated in the framework of the feasibility study done when a local producer wants to connect to the transmission network. As a consequence, it is expected that this service will only be available at a limited number of domestic points for injection and also that only a limited number of local producers (or their network users) will subscribe the quality conversion to H service.

Secondly, the service is offered to the local producer based on a predefined gas composition (a non compatible gas) and taking into account the blending possibilities. Downstream the blending point, the mix becomes a compatible gas. The quality conversion to H service is associated with an entry service and it is charged in capacity terms independently of the effective injected volumes.

iv. Reducing the Wobbe Index range and introducing global and local quality specifications at domestic points for injection

A respondent requests clarifications on the interactions between the quality requirements proposed in ACT Attachment C4 for domestic points for injection and the annex 7 of the connection agreement for end users.

On the one side, quality specifications at entry points, as listed in ACT Attachment C4, are used by Fluxys Belgium to determine which gas can enter the transmission network and which cannot. All the parameters listed in these quality specifications are therefore controlled through measurements, either continuous online measurements or periodical offline measurements following Synergrid specification G8.01.

On the other side, the requirements at domestic exit points (e.g. Annex 7 of connection agreement for end users) contain only the 4 parameters stated in Fluxys Belgium's transport authorizations: the GCV, the Wobbe Index, as well as the H_2S and total sulphur contents. Online measurement devices

at domestic exit points are only installed for end users having a very large gas consumption, in order to have a more precise energy determination (GCV).

Fluxys Belgium does not foresee to change this methodology.

The same respondent reacts on the limit values included in the proposed quality requirements at domestic points for injection arguing that some of them are not acceptable to certain end users and others need further investigations. Another respondent mentions that more frequent variations and increased volatility of the natural gas composition might be detrimental for the efficiency of several industrial processes. This respondent also asks Fluxys Belgium to indicate whether the proposed changes could increase the volatility of the gas composition and to continue to strive for a stable and predictable gas quality and composition in the whole of its grid.

Fluxys Belgium recognizes that the quality of the gas and the stability of the gas composition is of key importance for the many end users to respect their sustainability and emission reduction goals as well as to minimize the process risks and the impact on product quality.

First of all, the new quality specifications proposed by Fluxys Belgium at domestic points for injection (12a and 12 b in ACT Attachment C4) are aligned with the quality specification Synergrid G8.01 that has already been consulted with the market and approved by Forbeg. Most of the limit values in such Synergrid G8.01 quality specification come from EU standards EN 16726, EN16723-1/2 developed by the CEN and the same limit values therefore apply in other EU countries.

Then, for components like Chlorine (Cl), Fluorine (F) and aromatics (BTX), the limit values have been chosen based on a benchmark with other EU countries. As these limit values are not yet specified in a European standard, we can a priori change them more easily in an upcoming revision of the quality specifications Synergrid G8.01. In that case, sound evidence should be provided to Synergrid/Fluxys Belgium on why the existing limit values are not acceptable and what could be proposed as alternative limit values.

By specifying all these limit values in its quality specifications for domestic points for injection, Fluxys Belgium ensures that the content of such components will be limited and more importantly controlled when injected into the transmission network by the local producers. Components like Cl, F or BTX are for example not specified, nor controlled in Germany or Denmark, two countries that experience injection of very large volumes of biomethane. It does not mean that these parameters are not present in these countries, though. But in Belgium these components will be at least controlled through periodical measurements.

As demonstrated in the recent years, diversity of supply is a key driver of the security of supply and also facilitates the progressive uptake of renewable gases. But diversity of supply also implies some volatility of gas composition as gas delivered at a domestic point can switch more frequently between different sources. As a consequence, we cannot exclude that the energy transition will lead to an increase of the gas composition volatility but Fluxys Belgium tries to reduce that volatility to the most wherever possible. The proposed reduced WI entry range for domestic points for injection illustrates that commitment.

Finally, Fluxys Belgium shall inform in advance (after the signature of the connection offer) the relevant end users in case a local producer connects to the grid. Such communication shall contain

information provided by the local producer on the components that will effectively be present in the gas injected. This information provision shall be added as an obligation of the TSO in the connection agreement for the end users in the next market consultation (expected end of Q1 2024).

Another respondent states that the reduction of limit values for O_2 from 5000 ppm to 1000 ppm at some domestic points for injection will result into higher OPEX costs for the local producers and therefore could affect the development of biomethane production in Belgium in a negative way.

First of all, Fluxys Belgium would like to clarify that the proposal is not a restriction of the currently applicable specification but a clarification on where the 5000 ppm O_2 limit applies as the previous conditions were difficult to understand.

Fluxys Belgium is very well aware of the fact that the more stringent the quality specifications are, the higher the costs will be for the local producers. This is the reason why a local quality specification (ACT Attachment C4 12b) has been proposed to give some more room to the local producers wherever it is possible. Such additional room is offered for the following parameters: GCV, O_2, CO and H_2.

However, the quality specifications at IPs are harmonised with adjacent TSOs and cannot be modified unilaterally by Fluxys Belgium. With regards to the O_2 content, the most stringent limit (10 ppm O_2) is applicable on VIP BENE and VIP THE and therefore for all the local producers that will inject in the part of the transmission networks connected to these VIPs. The same reasoning applies with the 100 ppm O_2 in the part of the transmission networks connected to the VIP Virtualys and with the 1000 ppm O_2 in the part of the transmission networks connected to IZT and GD Lux.

The same respondent reacts on the proposed Wobbe Index (WI) range at domestic points for injection arguing that the Wobbe Index value for synthetic methane is expected to be at 14.29 kWh/Nm³ and that it would have to be mixed with propane or would require additional purification steps to comply with the proposed WI range. Therefore, it encourages Fluxys Belgium to stick to the WI range applicable at interconnection points.

Gas injected by a local producer mixes in the best case with gas already flowing into the network. But in many other circumstances, the gas injected by the local producer can't mix properly in the network. As a consequence, some end users will sometimes get gas coming exclusively from the local producer and sometimes gas coming from other sources depending on the injection rate of the local producer. As explained earlier in this report, such switches between different supply sources, can be detrimental to sensitive end users.

We also refer to Article 53 of the gas regulation in the gas decarbonization package that introduces a WI classification system which aims at limiting the WI variations in the gas delivered to domestic exit points.

Therefore, to avoid unacceptable WI variations in the gas delivered to end users, Fluxys Belgium has proposed to limit the difference between the WI of the gas already flowing into the transmission network and the WI of the gas injected by the local producers.

v. Simplifying the calculation for capacity exceeding fee

One party reacts to the proposed modification of the calculation of the capacity exceeding fee.

Firstly, the party asks Fluxys Belgium to clarify why the existing calculation was not adequate anymore. The current capacity exceeding's fee calculation has been developed many years ago when capacities were not sold on short term basis and therefore no short term tariffs existed. Fluxys Belgium sees now the need to align the tariffication of capacity exceeding with the existing coefficients used for computing the daily tariff (SC, NYM, STC). In addition, the current capacity exceeding's fee calculation is very complex commercially speaking, especially due to the presence of the occurrence factor (OF). The OF also depends on the combination end user/network user at a certain domestic point, and, given that this combination changes at an increasing rate (end users change from network users more frequently), a solution was needed. Therefore, Fluxys Belgium proposed a new formula for capacity exceeding's calculation which is equivalent to one month of capacity paid at daily tariff.

The same respondent also expresses its concerns regarding the use of the seasonal coefficient in the proposed calculation. The party argues that capacity exceeding's are due to unforeseen events and are not directly relating to seasonality, which relates more to offtake on distribution domestic points, these being exempted from capacity exceeding fee. The party also believes that the application of the seasonal coefficient in the proposed calculation might even be misused by some end users to reduce their capacity exceeding's fee.

Fluxys Belgium recognizes that capacity exceeding's are probably not season driven. The capacity on the other hand is more scare and therefore has more value in the winter. However, Fluxys Belgium accepts to remove the seasonal coefficient (SC) from the proposed formula to calculate the capacity exceeding fee but maintain the application of non-yearly multiplier and short term coefficient (NYM, ST). The deletion of the SC in the formula could be reconsidered and could be re-introduced would its deletion lead to a misuse and/or an undesired behaviour in the capacity bookings.

vi. Removing all the references to OCUCs and wheelings

No formal comment was made by respondents.

vii. Removing all references to the Electronic Booking System (EBS)

No formal comment was made by respondents.

viii. Minor changes to the Standard Transmission Agreement and Access Code and various minor editorial changes.

No formal comment was made by respondents.

ix. Out of scope comments

Several questions were raised in the framework of this consultation that could not be linked to the scope of the consultation.

A respondent requests clarification on the quality specification that shall apply to the local producers of non compatible gas. Fluxys Belgium confirms that a new connection agreement for

local producers of non-compatible gas is indeed being drafted and shall be consulted end of Q1 2024. Such connection agreement shall include an annex with detailed quality specifications for the non compatible gas. These shall be determined on a case by case basis between the local producer and Fluxys Belgium, taking into account the blending possibilities. For the avoidance of doubts, a non compatible gas can only be, either a blend of H_2 with H-gas, either a gas that respects another quality specification of ACT Attachment C4 (e.g. L-gas).

The same respondent identifies that the connection agreement for local producers of compatible gas was referring to two different quality specifications. The correct reference is the one to the quality specification of Synergrid G8.01. This shall be corrected in an upcoming market consultation (expected end of Q1 2024)

Another respondent requires Fluxys Belgium to consult impacted end users for each connection requests from a local producer. As indicated above, Fluxys Belgium shall inform (and not consult) in advance the relevant end users in case a local producer connects to the transmission network. Such communication shall take place when the local producer signs a binding connection request with Fluxys Belgium and shall contain information provided by the local producer on the components that will effectively be present in the gas injected. This information provision shall be added as an obligation to the TSO in the connection agreement for the end users in an upcoming market consultation (expected end of Q1 2024).

The same party states that, to the extent that H_2 is to be part of the future fuel mix in a climate-neutral Europe, mixing it up with natural gas does not seem to be a step in the right direction, and invites Fluxys Belgium to provide a cost/benefit analysis of this solution, proving it offers a positive balance for society. H_2 content in compatible gas is currently limited to a maximum of 2%. This limit value has already been approved in decision B2231 of the CREG and is therefore not part of the current consultation. Any proposal to increase the limit value for H_2 above 2% shall be consulted with the market. In addition, Fluxys Belgium would like to emphasize the fact that the injection of pure H_2 is not the only possibility to get H_2 in the network as it could also be present in small quantities (<2% H_2) in e-methane and some biomethane. Allowing a limited amount of H_2 in the gas is therefore key to unlock the full potential of renewable gases.

This respondent also invites Fluxys Belgium to provide feedback on the possible impact on industrial processes (especially for gas used as a raw material) of an increased share of argon in the gas flows as a consequence of biomethane injection in the gas grid. There is no limit value specified for Argon in the proposed quality specification for domestic points for injection, nor in the quality specification Synergrid G8.01 and in EU standards EN16726 and EN16723-1/2. As a consequence, Argon is not limited and its content is not controlled at Fluxys Belgium's entry points. Like other inert gases, Argon is indirectly limited by the specifications on GCV and Wobbe Index. In addition, measuring separately Argon is not possible with existing gas chromatographs as its measurement is combined with N_2. However, this does not influence the GCV calculation as the two molecules have no energy content. The Wobbe Index calculation is slightly impacted but the error done is considered as neglectable compared to the precision of the measurements. As an inert gas, we have considered until now that the only impact of Argon was relating to the efficiency of the processes. Fluxys Belgium suggests the respondent to provide more information should any other impact need to be considered.

Finally a respondent sends a comment on the gas quality responsibilities developed in article 8 of the STA on gas quality arguing that it is unfair to put any liability related to the quality of gas on the network users. Fluxys Belgium recognizes that, with the evolution of the gas commercial model in the last decade, the network users are less and less capable of influencing the quality of the gas circulating in the transmission network. The current Article 8 of the STA on gas quality recognizes this by limiting the responsibility of network users in terms of gas quality to two very specific cases (when Fluxys Belgium is aware that the gas is out of specification but has to accept to maintain system integrity; when Fluxys Belgium could not have been aware that the gas was out of specifications). Fluxys Belgium believes that a European harmonization is needed regarding liabilities in terms of gas quality in the Interconnection Agreements prior to make changes to gas quality responsibilities from the network users in the STA.

It should be noted however that, as it is stated in article 10.1 of the STA, the "damages from one Party towards the other Party shall be limited to Direct Material Damages". Such direct material damages can typically occur when gas out of specification is delivered to an end user or to an adjacent operator (TSO, SSO). This does not happen when Fluxys Belgium interrupts the flow. As a consequence, we strongly oppose to the requested compensation for missed revenues and market opportunities and continue to support maintaining the balancing obligation of the impacted Network Users.

4. Conclusions and next steps

Based on the market feedback and the arguments provide earlier in this document, Fluxys Belgium will adapt the following elements in the regulated documents that will be submitted to the CREG for approval:

- Calculation of the capacity exceeding's fee: removal of the seasonal coefficient

Fluxys Belgium shall also organize another market consultation in Q1 2024 to complete the service offering for the injection of compatible and non compatible gases into the methane network. This consultation should include at least the following elements:

- STA/ACT: a gas booster service (for compression from the DSO network to the TSO network) and the related tariff;
- STA: Remove gas quality responsibilities of network users at domestic points for injection
- Connection agreement end user: a new obligation from the TSO to inform in advance the relevant end users in case a local producer connects to the grid;
- Connection agreement for local producer of compatible gases: clarify applicable quality specifications through unique reference to Synergrid G8.01
- Proposal for a new connection agreement for local producer of non compatible gases.

5. Appendices

5.1. E-mail invite for consultation

From: Fluxys Belgium <info.transport@fluxys.com>
Sent: 17 November 2023 16:03
Subject: Fluxys Belgium - Market Consultation 66: Update for the injection of compatible and non compatible gases in the methane network

Fluxys Belgium: Market Consultation 66: Update for the injection of compatible and non compatible gases in the methane network

Dear Customer,

Participate in our market consultation that will take place from **17 November 2023 to 8 December 2023**. The following changes are introduced in the regulatory documents:

1. Introducing the new **domestic points for injection**
2. introduction of a **capacity type conditional** for entry capacity at domestic points for injection
3. reviewing of the **quality conversion to H service** for the injection of H2NG blends and biomethane
4. reducing the **Wobbe Index range** and introducing **global and local quality specifications at domestic points for injection**
5. simplifying the calculation for **capacity exceeding fee**
6. **removing** all the references to **OCUCs and wheelings**
7. **removing** all references to the **Electronic Booking System (EBS)**
8. minor changes to the Standard Transmission Agreement and Access Code and various minor editorial changes.

As from **17 November 2023**, Fluxys Belgium launches therefore a market consultation on the regulated documents.

The documents can be consulted on our website.

You are kindly invited to send your written comments to marketing@fluxys.com **by 8 December 2023 before 17:00 CET.**

Please specify in your response, whether the content is to be treated as confidential or not. Unless otherwise mentioned, all comments will be treated as non-confidential.

Yours sincerely,

The Commercial Team

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(and could cause non-compliance with the non-discriminatory treatment of you as a customer)

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Kunstlaan 31, 1040 Brussels, Belgium

5.2. List of documents in consultation

The documents are available in our website: https://www.fluxys.com/en/natural-gas-and-biomethane/empowering-you/customer-interactions/consultations-in-belgium---transmission/fluxys-belgium-market-consultation-66

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Company: Fluxys Belgium Activity: Transmission Zone: ZTP (BE - LUX) Molecule: Natural gas and biomethane

Fluxys Belgium market consultation 66 - Update for the injection of compatible and non compatible gases in the methane network

Participate in our market consultation that will take place from **17 November 2023 to 8 December 2023**. The following changes are introduced in the regulatory documents:

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8. minor changes to the Standard Transmission Agreement and Access Code and various minor editorial changes.

The following document summarises the proposed changes: **Key Note Consultation 66**

Documents in consultation (with track changes):

- **Standard Transmission Agreement**
- Access Code for Transmission: **Attachment A**
- Access Code for Transmission: **Attachment B**
- Access Code for Transmission: **Attachment C1**
- Access Code for Transmission: **Attachment C2**
- Access Code for Transmission: **Attachment C3**
- Access Code for Transmission: **Attachment C4**
- Access Code for Transmission: **Attachment E**
- Access Code for Transmission: **Attachment G**
- **Transmission Programme**

You are kindly invited to send your written comments to **marketing@fluxys.com** by **8 December 2023 before 17:00 CET**.

Please mention in your response whether the content is to be treated as confidential or not. Unless otherwise specified, all comments will be treated as non-confidential.

Consultation 66 report

Annex - public reactions

1.1. Questions and Answers – Public

#	From	Confidentia	Topic	Questions / Comments by Stakeholders	Answers / Comments by Fluxys Belgium
2.1	FEBELIEC	NO	Gas quality specifications	As Febeliec mentioned several times in the past, more frequent variations and increased volatility of the natural gas composition are detrimental for the efficiency of several industrial processes. Febeliec invites Fluxys to indicate whether the proposed changes could increase the volatility of the gas composition.	- Fluxys Belgium recognizes that the quality of the gas and the stability of the gas composition is of key importance for the many end users to respect their sustainability and emission reduction goals as well as to minimize the process risks and the impact on product quality. - As demonstrated in the recent years, diversity of supply is a key driver of the security of supply and also facilitates the progressive uptake of renewable gases. But diversity of supply also implies some volatility of gas composition as gas delivered at a domestic point can switch more frequently between different sources. - As a consequence, we cannot exclude that the energy transition will lead to an increase of the gas composition volatility but Fluxys Belgium tries to reduce that volatility to the most wherever possible. - The proposed reduced WI entry range for domestic points for injection illustrates that commitment.
2.2	FEBELIEC	NO	Gas quality specifications	To the extent that H2 is to be part of the future fuel mix in a climate-neutral Europe, mixing it up with natural gas does not seem to be a step in the right direction. Though Febeliec recognizes the technical possibility to increase the hydrogen content of supplied natural gas, we invite Fluxys to provide a cost/benefit analysis of this solution, proving it offers a positive balance for society. Febeliec would like to mention the potential impact of higher hydrogen shares in the natural gas used for electricity production on the turbines' efficiency.	- This comment is out of scope - H2 content in compatible gas is currently limited to a maximum of 2%. This limit value has already been approved in decision B2231 of the CREG and is therefore not part of the current consultation. Any proposal to increase the limit value for H2 above 2% shall be consulted with the market. - In addition, Fluxys Belgium would like to emphasize the fact that the injection of pure H2 is not the only possibility to get H2 in the network as it could also be present in small quantities (<2% H2) in e-methane and some biomethane. Allowing a limited amount of H2 in the gas is therefore key to unlock the full potential of renewable gases.
2.3	FEBELIEC	NO	Gas quality specifications	As for the proposed changes to allow the injection of new gasses (i.e. biomethane) in the natural gas transmission grid, Febeliec refers to its answer to Market Consultation 47, and more specifically to the potential impact of the gas composition and quality on industrial processes, as well as on the importance of the predictability and speed of change of gas quality and composition for the integrity of industrial processes using natural gas. Febeliec strongly advices Fluxys - to continue to strive for a stable and predictable gas quality and composition in the whole of its grid, acknowledging that current gas quality is well within the legal specs; - to thoroughly consult grid users potentially impacted by the injection of "new gases" every time a new producer requests injection into the Fluxys grid.	See 2.1 - In addition, Fluxys Belgium shall inform in advance the relevant end users in case a local producer connects to the transmission network. Such communication shall take place when the local producer signs a binding connection request with Fluxys Belgium and shall contain information provided by the local producer on the components that will effectively be present in the gas injected. This information provision shall be added as an obligation to the TSO in the connection agreement for the end users in an upcoming market consultation (expected end of Q1 2024).
2.4	FEBELIEC	NO	Gas quality specifications	Febeliec also invites Fluxys to provide feedback on the possible impact on industrial processes (especially for gas used as a raw material) of an increased share of argon in the gas flows as a consequence of biogas injection in the gas grid (see market consultation in the Netherlands on this issue, https://www.internetconsultatie.nl/gaskwaliteit/b1).	- This comment is out of scope - There is no limit value specified for Argon in the proposed quality specification for domestic points for injection, nor in the quality specification Synergrid G8.01 and in EU standards EN16726 and EN16723-1/2. As a consequence, Argon is not limited and its content is not controlled at Fluxys Belgium's entry points. - Like other inert gases, Argon is indirectly limited by the specifications on GCV and Wobbe Index. - In addition, measuring separately Argon is not possible with existing gas chromatographs as its measurement is combined with N2. However, this does not influence the GCV calculation as the two molecules have no energy content. The Wobbe Index calculation is slightly impacted but the error done is considered as neglectable compared to the precision of the measurements. - As an inert gas, we have considered until now that the only impact of Argon was relating to the efficiency of the processes. Fluxys Belgium suggests the respondent to provide more information should any other impact need to be considered.

#	From	Confidentia	Topic	Questions / Comments by Stakeholders	Answers / Comments by Fluxys Belgium
3.1	FEBEG	NO	Gas quality responsibilities	FEBEG thinks that the right responsibilities should be placed with the right market player. In particular, we believe it is unfair to put any liability related to the quality of gas on the shippers.	- This topic is out of scope of the current market consultation. - However, Fluxys Belgium recognizes that, with the evolution of the gas commercial model in the last decade, the network users are less and less capable of influencing the quality of the gas circulating in the transmission network. - The current Article 8 of the STA on gas quality recognizes this by limiting the responsibility of network users in terms of gas quality to two very specific cases (when Fluxys Belgium is aware that the gas is out of specification but has to accept to maintain system integrity; when Fluxys Belgium could not have been aware that the gas was out of specifications). - Fluxys Belgium believes that a European harmonization is needed regarding liabilities in terms of gas quality in the Interconnection Agreements prior to make changes to gas quality responsibilities from the network users in the STA. - It should be noted however that, as it is stated in article 10.1 of the STA, the "damages from one Party towards the other Party shall be limited to Direct Material Damages". Such direct material damages can typically occur when gas out of specification is delivered to an end user or to an adjacent operator (TSO, SSO). This does not happen when Fluxys Belgium interrupts the flow. As a consequence, we strongly oppose to the requested compensation for missed revenues and market opportunities and continue to support maintaining the balancing obligation of the impacted Network Userssupport that balancing obligation for the impacted Network Users.
3.2	FEBEG	NO	Gas quality responsibilities	We propose to delete the phrase 'or the Network User, as the case may be'. FEBEG is of the opinion that the TSO is the only party who is in a position to refuse gas. It is up to Fluxys Belgium to judge whether it can accept the gas (re)delivered at a connection point, taking into account the system integrity of its facilities. A shipper has no means of knowing that the gas in question is on-spec. Moreover, if Fluxys accepts the gas, it takes up a responsibility towards the shipper. If the neighbouring TSO, to which the gas is supposed to be transported, will not or cannot receive the gas, Fluxys will refuse to transport the gas, and has to inform and compensate the shippers. In that perspective, FEBEG doesn't agree that the balancing obligations of the Network User towards the Balancing Operator, described in the Balancing Agreement and in the Balancing Code, remain applicable, in case a party refuses the (re-)delivery of non-spec gas.	
3.3	FEBEG	NO	Gas quality responsibilities	Shippers don't have access to the quality control system, or the data, of Fluxys. Since it is the TSO who monitors gas quality, and has all the data, it should be the TSO who informs the other party of such non-compliance. FEBEG thinks that a shipper has no role to play in accepting or refusing out-of-spec gas. FEBEG expects that, if Fluxys refuses to transport the gas after consulting the neighbouring TSO's, it will inform the shippers involved and compensate them for their losses. As a logical consequence, FEBEG expects that in that case, the shippers should at least not have to pay the capacity fee. FEBEG acknowledges that the natural gas, delivered by a shipper at a connection point, shall not be separate from quantities of natural gas of other shippers that deliver natural gas at the same connection point. However, this cannot imply that the shipper of the former can be hold responsible for the quality of the gas delivered by other shippers (or by other TSO's). We refer hereby to the dust problems in 2022, whereby National Grid delivered gas at Bacton which was not on spec. The shippers can't in any way be held responsible for this. Moreover, we strongly feel that in this case the shippers should be compensated for missed revenues and market opportunities.	
3.4	FEBEG	NO	Gas quality responsibilities	The article 8.3 of the STA reads "For the avoidance of doubt, the TSO cannot be held liable toward the Network User for damages incurred by the Adjacent TSO for which such Adjacent TSO is indemnified by the TSO." FEBEG wonders, referring to the recent dust problems at Interconnector, how this clause will be applied if National Grid (or another neighbouring TSO, for that matter) is the causer of the problem. How and by whom will the shipper be indemnified? Again, the shipper cannot be held responsible for the quality of the gas delivered by other shippers, or by other TSO's. In that case, the shippers should be compensated for missed revenues and market opportunities. We reiterate the fact that shippers have no control nor power over the quality of the gas. Therefore, they can't be held responsible and forced to pay for damages without having any info on the reasons behind this	
3.5	FEBEG	NO	Conditional capacity type	FEBEG expects that the Conditional capacity tariff shall benefit from a discount compared to the Firm capacity tariff to reflect the probability of the service not being available due to network constraints that are out of the shipper's control. We believe that this discount should at least be equal to the current interruptible capacity discount, i.e. 20%.	- Fluxys Belgium confirms its intention to offer 20% discount for the conditional capacity tariff, like it is the case for interruptible and backhaul capacity tariffs.
3.6	FEBEG	NO	Quality Conversion to H Service	Our understanding is that the Quality Conversion to H service will be allocated implicitly for any booking of Entry capacity at a Domestic Point, whether the injected gas is on-specs or not. FEBEG believes that much like any service that Fluxys offers, its tariff should be cost reflective. Therefore, FEBEG strongly suggests that this Quality Conversion to H service only be allocated and invoiced in case : - The injected gas is not on-specs, and - Fluxys doesn't refuse the incompatible gas, and blends is with H-gas to make it compatible Moreover, it is unclear whether the Quality Conversion to H Service will be allocated at all Domestic Points for Injection, or only at the Domestic Points for Injection that are equipped with a blender. I.e., are there any Domestic Points where Fluxys will offer Entry Capacity and that will not be equipped with a blender ?	- Firstly, quality conversion to H service is offered only at network locations where there is a continuous flow of H-gas that can serve for the blending. This opportunity is evaluated in the framework of the feasibility study done when a local producer wants to connect to the transmission network. As a consequence, it is expected that this service will only be available at a limited number of domestic points for injection and also that only a limited number of local producers (or their network users) will subscribe the quality conversion to H service. - Secondly, the service is offered to the local producer based on a predefined gas composition (a non compatible gas) and taking into account the blending possibilities. Downstream the blending point, the mix becomes a compatible gas. The quality conversion to H service is associated with an entry service and it is charged in capacity terms independently of the effective injected volumes .

#	From	Confidentia	Topic	Questions / Comments by Stakeholders	Answers / Comments by Fluxys Belgium
3.7	FEBEG	NO	Gas quality specifications	Febeg understands that Fluxys proposes two categories of Domestic Points for Injection (where gas can/cannot reach an Interconnection Point or Loenhout). Febeg would like to ask Fluxys how Domestic Points for Injection will be categorized and how this information will be transmitted to shippers and producers.	- This will be part of the feasibility study Fluxys Belgium conducts in order to make a commercial offer to a candidate Local Producer. - The evaluation is done based on the required injection capacity and consists of evaluating the part of the network that will be affected by the gas injected by the candidate local producer.
3.8	FEBEG	NO	Gas quality specifications	Fluxys proposes to lower the maximum threshold for Oxygen from 5000 ppm by vol to 1000 ppm by vol for Domestic injection point at location where the gas can reach an IP point or Loenhout . Where this can be possible at injection points, this will result into higher OPEX costs for the producer and therefore could affect the development of biomethane production in Belgium in a negative way.	- Fluxys Belgium is very well aware of the fact that the more stringent the quality specifications are, the higher the costs will be for the local producers. This is the reason why a local quality specification (ACT Attachment C4 12b) has been proposed to give some more room to the local producers wherever it is possible. Such additional room is offered for the following parameters: GCV, O2, CO and H2. - However, the quality specifications at IPs are harmonised with adjacent TSOs and cannot be modified unilaterally by Fluxys Belgium. With regards to the O2 content, the most stringent limit (10 ppm O2) is applicable on VIP BENE and VIP THE and therefore for all the local producers that will inject in the part of the transmission networks connected to these VIPs. The same reasoning applies with the 100 ppm O2 in the part of the transmission networks connected to the VIP Virtualys and with the 1000 ppm O2 in the part of the transmission networks connected to IZT and GD Lux.
3.9	FEBEG	NO	Gas quality specifications	Fluxys intends to reduce the Wobbe index range for the injection into the grid. Current range allows the injection between 13.82 and 15.47 kWh/Nm³. The new proposed range is narrower: 14.49 – 15.05 kWh/Nm³. In the context of greenification, projects that are targeting the production of synthetic green methane (e-methane) to be be injected in Fluxys natural gas grid are being developed. This e-methane can replace the conventional fossil fuel as it has similar properties. The reaction of methanation consists in combining green H2 (produced via water electrolysis) and CO2 (captured from an emitting process) via a catalytic reaction. As a result of this reaction, the synthetic methane consists mainly in CH4 and some unreacted product CO2 + H2. As such, the synthetic methane does not benefit of C3+ that help to increase the calorific value and the wobbe index. This synthetic methane average value of the Wobbe index based on HHV is expected to be at 14.29 kWh/Nm³ which is within the current Wobbe index range, but would not be within the proposed new range. In that context, the synthetic methane would have to be mixed with propane or would require additional purification steps which are not envisaged today. We encourage Fluxys to stick to the current values as the proposed ones would slow down the development of e-methane and gas greenification.	- Gas injected by a local producer mixes in the best case with gas already flowing into the network. But in many other circumstances, the gas injected by the local producer can't mix properly in the network. As a consequence, some end users will sometimes get gas coming exclusively from the local producer and sometimes gas coming from other sources depending on the injection rate of the local producer. Such switches between different supply sources, can be detrimental to sensitive end users. - We also refer to Article 53 of the gas regulation in the gas decarbonization package that introduces a WI classification system which aims at limiting the WI variations in the gas delivered to domestic exit points. - Therefore, to avoid unacceptable WI variations in the gas delivered to end users, Fluxys Belgium has proposed to limit the difference between the WI of the gas already flowing into the transmission network and the WI of the gas injected by the local producers.

1.2. Copy of written comments – Public

All reactions			
Company	**First Name**	**Last Name**	**Confidential**
FEBELIEC	Peter	Claes	No
FEBEG	Luc	Huysmans	No

FEBELIEC

Dear Madam or Sir,

Please find below the Febeliec reaction to Fluxys Belgium Market Consultation 66: Update for the injection of compatible and non compatible gases in the methane network (https://www.fluxys.com/en/news/fluxys-belgium/2023/231117_consultation-66_changes_in_act_sta_and_tp).

Febeliec thanks Fluxys for the opportunity to comment on the proposed changes to the regulatory documents.

- As Febeliec mentioned several times in the past, more frequent variations and increased volatility of the natural gas composition are detrimental for the efficiency of several industrial processes. Febeliec invites Fluxys to indicate whether the proposed changes could increase the volatility of the gas composition.
- To the extent that H_2 is to be part of the future fuel mix in a climate-neutral Europe, mixing it up with natural gas does not seem to be a step in the right direction. Though Febeliec recognizes the technical possibility to increase the hydrogen content of supplied natural gas, we invite Fluxys to provide a cost/benefit analysis of this solution, proving it offers a positive balance for society. Febeliec would like to mention the potential impact of higher hydrogen shares in the natural gas used for electricity production on the turbines' efficiency.
- As for the proposed changes to allow the injection of new gasses (i.e. biomethane) in the natural gas transmission grid, Febeliec refers to its answer to Market Consultation 47, and more specifically to the potential impact of the gas composition and quality on industrial processes, as well as on the importance of the predictability and speed of change of gas quality and composition for the integrity of industrial processes using natural gas. Febeliec strongly advices Fluxys
  - to continue to strive for a stable and predictable gas quality and composition in the whole of its grid, acknowledging that current gas quality is well within the legal specs;
  - to thoroughly consult grid users potentially impacted by the injection of "new gases" every time a new producer requests injection into the Fluxys grid.

  Febeliec also invites Fluxys to provide feedback on the possible impact on industrial processes (especially for gas used as a raw material) of an increased share of argon in the gas flows as a consequence of biogas injection in the gas grid (see market consultation in the Netherlands on this issue, https://www.internetconsultatie.nl/gaskwaliteit/b1).

Thank you,
Kind regards,

*Peter Claes**
on behalf of Febeliec vzw/asbl
Federation of Belgian Industrial Energy Consumers
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* acting as Manager of Econergy VOF, General Manager of Febeliec
Febeliec represents the industrial consumers of electricity and natural gas in Belgium.

FEBEG :

POSITION

Subject:	FEBEG Reaction on Fluxys Consultation 66: update for the injection of compatible and non-compatible gases in the methane network
Date:	2023 12 08
Contact:	Luc Huysmans
Telephone:	+(32) 496 59 54 15
Mail:	Luc.huysmans@febeg.be

Introduction

Fluxys Belgium launched on 17 November consultation nr 66: update for the injection of compatible and non-compatible gases in the methane network. The deadline for this consultation is 8 December 2023 EOB.

FEBEG thanks Fluxys Belgium for the opportunity to react to this consultation.The remarks of FEBEG are not confidential.

General remarks

FEBEG thinks that the right responsibilities should be placed with the right market player. In particular, we believe it is unfair to put any liability related to the quality of gas on the shippers.

Remarks on the content

STA – 8. OPERATING CONDITIONS AND QUALITY REQUIREMENTS (part of attachment 2, general conditions)

8.1. General principle

We propose to delete the phrase 'or the Network User, as the case may be'. FEBEG is of the opinion that the TSO is the only party who is in a position to refuse gas. It is up to Fluxys Belgium to judge whether it can accept the gas (re)delivered at a connection point, taking into account the system integrity of its facilities. A shipper has no means of knowing that the gas in question is on-spec.

Moreover, if Fluxys accepts the gas, it takes up a responsibility towards the shipper. If the neighbouring TSO, to which the gas is supposed to be transported, will not or cannot receive the gas, Fluxys will refuse to transport the gas, and has to inform and compensate the shippers.

In that perspective, FEBEG doesn't agree that the balancing obligations of the Network User towards the Balancing Operator, described in the Balancing Agreement and in the Balancing Code, remain applicable, in case a party refuses the (re-)delivery of non-spec gas.

STA – 8.2 Damages incurred by the TSO arising out of the acceptance by the TSO of non-compliant Natural Gas at a Connection Point

Shippers don't have access to the quality control system, or the data, of Fluxys. Since it is the TSO who monitors gas quality, and has all the data, it should be the TSO who informs the other party of such non-compliance. FEBEG thinks that a shipper has no role to play in accepting or refusing out-of-spec gas.

FEBEG expects that, if Fluxys refuses to transport the gas after consulting the neighbouring TSO's, it will inform the shippers involved and compensate them for their losses. As a logical consequence, FEBEG expects that in that case, the shippers should at least not have to pay the capacity fee.

FEBEG acknowledges that the natural gas, delivered by a shipper at a connection point, shall not be separate from quantities of natural gas of other shippers that deliver natural gas at the same connection point. However, this cannot imply that the shipper of the former can be hold responsible for the quality of the gas delivered by other shippers (or by other TSO's).

We refer hereby to the dust problems in 2022, whereby National Grid delivered gas at Bacton which was not on spec. The shippers can't in any way be held responsible for this. Moreover, we strongly feel that in this case the shippers should be compensated for missed revenues and market opportunities.

STA – 8.3 Damages incurred by the Network User arising out of the redelivery by the TSO of non-compliant Natural Gas at an Interconnection Point or an Installation Point

The article reads "For the avoidance of doubt, the TSO cannot be held liable toward the Network User for damages incurred by the Adjacent TSO for which such Adjacent TSO is indemnified by the TSO."

FEBEG wonders, referring to the recent dust problems at Interconnector, how this clause will be applied if National Grid (or another neighbouring TSO, for that matter) is the causer of the problem. How and by whom will the shipper be indemnified?

Again, the shipper cannot be held responsible for the quality of the gas delivered by other shippers, or by other TSO's. In that case, the shippers should be compensated for missed revenues and market opportunities.

We reiterate the fact that shippers have no control nor power over the quality of the gas. Therefore, they can't be held responsible and forced to pay for damages without having any info on the reasons behind this decision.

Attachment A – 3.1 Entry and Exit Services

"*Conditional capacity (MTSRc) can be offered for Entry Services at Domestic Points and is available as long as the Injection of Gas at the Domestic Point is not resulting:*

- *in an excess of gas in that portion of the transmission grid, or*
- *in the violation of any of the specific requirements described in ACT Attachment C4."*

FEBEG expects that the Conditional capacity tariff shall benefit from a discount compared to the Firm capacity tariff to reflect the probability of the service not being available due to network constraints that are out of the shipper's control. We believe that this discount should at least be equal to the current interruptible capacity discount, i.e. 20%.

Attachment A 3.4 Quality Conversion to H Service

"*Quality Conversion to H Services offered at Domestic Points for Injection shall always be associated and implicitly allocated together (meaning matched in quantity, time and Capacity Type) with the subscription of its associated Entry, as described in ACT – Attachment B. Quality Conversion to H Services shall be offered at specific Domestic Points for Injection where blending is possible."*

Our understanding is that the Quality Conversion to H service will be allocated implicitly for any booking of Entry capacity at a Domestic Point, whether the injected gas is on-specs or not. FEBEG believes that much like any service that Fluxys offers, its tariff should be cost reflective. Therefore, FEBEG strongly suggests that this Quality Conversion to H service only be allocated and invoiced in case :

- The injected gas is not on-specs, and
- Fluxys doesn't refuse the incompatible gas, and blends is with H-gas to make it compatible

Moreover, it is unclear whether the Quality Conversion to H Service will be allocated at all Domestic Points for Injection, or only at the Domestic Points for Injection that are equipped with a blender. I.e., are there any Domestic Points where Fluxys will offer Entry Capacity and that will not be equipped with a blender ?

Attachment C4 – art.12

Febeg understands that Fluxys proposes two categories of Domestic Points for Injection (where gas can/cannot reach an Interconnection Point or Loenhout). Febeg would like to ask Fluxys how Domestic Points for Injection will be categorized and how this information will be transmitted to shippers and producers.

Fluxys proposes to lower the maximum threshold for Oxygen from 5000 ppm by vol to 1000 ppm by vol for Domestic injection point at location where the gas can reach an IP point or Loenhout . Where this can be possible at injection points, this will result into higher OPEX costs for the producer and therefore could affect the development of biomethane production in Belgium in a negative way.

On another note, Fluxys intends to reduce the Wobbe index range for the injection into the grid. Current range allows the injection between 13.82 and 15.47 kWh/Nm³. The new proposed range is narrower: 14.49 – 15.05 kWh/Nm³.

In the context of greenification, projects that are targeting the production of synthetic green methane (e-methane) to be be injected in Fluxys natural gas grid are being developed. This e-methane can replace the conventional fossil fuel as it has similar properties.

The reaction of methanation consists in combining green H2 (produced via water electrolysis) and CO2 (captured from an emitting process) via a catalytic reaction. As a result of this reaction, the synthetic methane consists mainly in CH4 and some unreacted product CO2 + H2. As such, the synthetic methane does not benefit of C3+ that help to increase the calorific value and the wobbe index.

This synthetic methane average value of the Wobbe index based on HHV is expected to be at 14.29 kWh/Nm³ which is within the current Wobbe index range, but would not be within the proposed new range.

In that context, the synthetic methane would have to be mixed with propane or would require additional purification steps which are not envisaged today.

We encourage Fluxys to stick to the current values as the proposed ones would slow down the development of e-methane and gas greenification.