



The Danish Utility Regulator

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Submission of Methodology for Approval of change of level of multipliers and introduction of seasonal factors in the tariff structure during the Tyra redevelopment period

Pursuant to section 36a (1) and section 40 in the Danish Act on Natural Gas Supply, Energinet must submit the methods that are used to calculate or establish terms and conditions for access to the transmission grid for approval by the Danish Utility Regulator.

This Submission of Methodology for Approval concerns submission of:

- Seasonal factors in the tariff structure as a temporary measure during the Tyra redevelopment period and a change of the level of multipliers.

If the method is approved, Energinet Gas TSO will implement seasonal factors and the changed level of multipliers as of 1 October 2019. Seasonal factors shall work as temporary measure during the Tyra redevelopment period. Thus, seasonal factors will be valid from 1 October 2019 to 30 September 2022 dependent on whether the Tyra redevelopment period is being shortened or prolonged. Energinet Gas TSO will, during the Tyra redevelopment period, continually evaluate whether seasonal factors are necessary.

It is the opinion of Energinet Gas TSO that the submitted method can be set for approval because it complies with the requirements in the Danish Act on Natural Gas Supply concerning transparency, objectivity and non-discrimination. The method also complies with the requirements set in the REGULATION (EC) No 715/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 July 2009 on conditions for access to the natural gas transmission networks. The submitted method complies with the COMMISSION REGULATION (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas (TAR NC).

The submitted method will be applicable at the time of approval by the Danish Utility Regulator. Implementation of seasonal factors and a change of the level of multipliers as of 1 October 2019 requires an approval of the proposal by the Danish Utility Regulator no later than 1 June 2019 according to TAR NC, Article 29 and 32.

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1. Danish summary

Energinet Gas TSO ønsker at indføre sæsonfaktorer i tarifmetoden fra 1. oktober 2019. Baggrunden for ønsket er, at Tyra feltet i Nordsøen skal genopbygges. Gasstrømmen fra Tyra feltet stopper fra september 2019 og frem til juli 2022. Under Tyra genopbygningsperioden går det danske gasmarked fra at have to hovedforsyningskilder (Nybro og Ellund) til kun at have en forsyningskilde (Ellund).

Kapaciteten af Ellund forbindelsen er dog mindre end det forventede dansk-svenske gasforbrug i de koldeste perioder. Under Tyra genopbygningsperioden går det danske gasmarked derfor fra en situation med rigelig entry-kapacitet til en ny situation, hvor entry-kapacitet er en knap ressource.

Energinet Gas TSO ønsker derfor at give incitament til mere effektiv og optimal udnyttelse af gasinfrastrukturen ved at indføre sæsonfaktorer i tarifmetoden. Sæsonfaktorer gør prisen på kapacitet dyrere i perioder med høj efterspørgsel (de kolde perioder) og billigere i perioder med lav efterspørgsel (de varme perioder).

Da entry-kapaciteten i de koldeste perioder ikke er stor nok til at dække den dansk-svenske efterspørgsel, er det nødvendigt at gasinfrastrukturen udnyttes mere optimalt for at sikre forsyningsikkerheden. Det er nødvendigt gaslagerne anvendes i nødvendigt omfang, hvor de fyldes i varme perioder og tømmes i perioder med høj efterspørgsel på gas. Sæsonfaktorer giver et økonomisk incitament til at udnytte denne mekanisme i højere grad.

Energinet Gas TSO ønsker at indføre sæsonfaktorer på Ellund punktet (entry og exit). Det er Ellund punktet der er kritisk for forsyningsikkerheden. Energinet Gas TSO vurderer derfor samtidig, at det ikke er nødvendigt at fastsætte sæsonfaktorer i andre punkter end Ellund i det danske gasmarked, da det ikke vil have en forsyningsikkerhedsmæssig effekt.

Energinet Gas TSO ønsker at indføre sæsonfaktorer i en midlertidig periode - under Tyra genopbygningsperioden. Når Tyra platformen leverer gas igen, er det ikke længere nødvendigt med sæsonfaktorer, da entry-kapacitet til det danske gasmarked ikke længere vil være en knap ressource. Energinet Gas TSO vil løbende under Tyra genopbygningsperioden vurdere, hvorvidt sæsonfaktorer er nødvendige for at sikre forsyningsikkerheden. Hvis sæsonfaktorer ikke vurderes nødvendige, vil de blive afskaffet.

1.1 Høringsproces

Energinet Gas TSO har afholdt første høring af sæsonfaktorer¹ i perioden 18. januar 2019 til 8. februar 2019. Den 25. januar 2019 blev der afholdt en User Group² for alle interesserede transportkunder. På baggrund af høringen og User Group blev et revideret forslag til sæsonfaktorer³ præsenteret den 20. februar 2019 med en uges høring.

¹ <https://en.energinet.dk/Gas/Gas-news/2019/01/18/Seasonal-tariffs>

² <https://en.energinet.dk/Gas/Gas-news/2019/01/31/Update-on-market-consultation-on-seasonal-gas-tariffs-during-Tyra-redevelopment>

³ <https://en.energinet.dk/Gas/Gas-news/2019/02/20/Seasonal-gas-tariffs>

Energinet Gas TSO vurderede efterfølgende, at det reviderede forslag ikke var fuldt i overensstemmelse med Kommissionens forordning (2017/460) om fastsættelse af en netregel for harmoniserede transmissionstarifstrukturer for gas (TAR NC). Energinet Gas TSO har i denne anmeldelse justeret forslaget således, at det er i overensstemmelse med TAR NC. Forslaget indeholder mindre justeringer i forhold til det reviderede forslag til sæsonfaktorer af 20. februar 2019. Energinet Gas TSO sender derfor nærværende forslag (anmeldelse) til sæsonfaktorer i høring hos markedet parallelt med at det fremsendes til Forsyningstilsynet til godkendelse. Eventuelle høringssvar fra denne høring videresendes til Forsyningstilsynet hurtigst muligt efter høringen er slut.

2. Background for the Submission

The main supply source to the Danish gas market – the Tyra field – is about to go through a complete redevelopment from September 2019 to July 2022⁴. In that period gas flow from the Tyra field will be completely shut down. During the Tyra redevelopment period the Danish gas market will go from being supplied from two main entry-points (Nybro and Ellund) to only having one main supply source (Ellund).

Today, the majority of gas (approx. 90%) is delivered from the Tyra field. During the Tyra redevelopment period the lack of gas flow from the Tyra field will be substituted with increased import from Germany via the Ellund connection.

However, the capacity in Ellund is smaller than the gas flow from the Tyra field through Nybro. The capacity in Ellund is insufficient to fully cover the Danish and Swedish demand in cold periods. Therefore, the Tyra redevelopment creates a new situation in the Danish gas market, where the entry capacity in Ellund is a scarce resource.

During the Tyra redevelopment period, the situation on the Danish gas market reminds of the situation before the expansion of physical import capacity through Ellund in 2013. Before 2013 the Danish gas market was supplied by mainly one source of supply (domestic gas fields in the North Sea). Up until year 2016, the Danish gas market had seasonal factors in the tariff structure. Back then, the seasonal factors were applied to ensure an efficient utilisation of the capacity in the Danish gas system. Before the expansion of the Ellund connection, the capacity of the Danish gas system was a scarce resource in the cold periods, as will also be the situation during the Tyra redevelopment period.

The seasonal factors (and the resulting multipliers) up until 2016 are shown in Table 1 on the next page:

⁴ According to the latest Gas Market Message on the subject number 2805 dated 28 December 2018.

Table 1 – Seasonal factors and level of multipliers applied prior to year 2016

Firm capacity charge/reservation prices (short term)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
	Price in % of the annual capacity charge/reservation price											
Quarter	38,50%	38,50%	38,50%	70,00%	70,00%	70,00%	21,70%	21,70%	21,70%	16,80%	16,80%	16,80%
Month	7,00%	10,50%	21,00%	24,50%	24,50%	21,00%	10,50%	5,60%	5,60%	5,60%	5,60%	5,60%
Day	0,29%	0,40%	0,80%	0,99%	0,99%	0,80%	0,40%	0,26%	0,26%	0,26%	0,26%	0,26%
	Multiplier											
Quarter	1,54	1,54	1,54	2,80	2,80	2,80	0,87	0,87	0,87	0,67	0,67	0,67
Month	0,84	1,26	2,52	2,94	2,94	2,52	1,26	0,67	0,67	0,67	0,67	0,67
Day	1,06	1,46	2,92	3,61	3,61	2,92	1,46	0,95	0,95	0,95	0,95	0,95

Up to year 2016, the purpose of seasonal factors was to make the short products (quarter, month, day) more expensive during cold periods and cheaper during the warmer periods. This creates an economic incentive to flow more gas during the warmer periods, where it can be stored in the Danish gas storages until there is a higher demand for gas in the cold periods. Thereby, the shippers can save cost of transporting gas and capacity is utilised more effectively. This market mechanism incentivises a more efficient use of the gas system when capacity is a scarce resource during cold periods and reduces the need for incremental capacity.

Energinet Gas TSO finds it necessary to strengthen the incentive to make optimal use of the capacity in the system in order to safeguard security of supply during the upcoming redevelopment of the Tyra platform and therefore finds it necessary to reintroduce seasonal factors.

2.1 Other current consultations at the Danish Utility Regulator

Currently, Energinet Gas TSO has submitted a supplementary method application on tariffs for the Danish Utility Regulator's approval. The other method application on tariffs is the "Final Tariff Methodology"⁵ which is the overall cost allocation methodology for the future tariff setting. The "Final Tariff Methodology" has been in public hearing during autumn 2018, and now awaits the Danish Utility Regulator's decision.

This methodology for approval of seasonal factors does not change anything in the main methodology on tariffs described in the "Final Tariff Methodology". In the Final Tariff Methodology document it is the intention to introduce uniform tariffs for the Danish gas market together with a long-term multiplier in the range 0.95 - 0.90 for long-term bookings depending on duration. This methodology for approval on seasonal factors is a supplement to the main methodology of the future tariffs and is a temporary measure to be applied during the Tyra redevelopment period.

3. Submission of method

3.1 Current tariff methodology – no seasonal factors and relatively low multipliers

Table on the next page shows the current tariff structure. There are currently no seasonal factors in the tariff structure as the multiplier does not change throughout the year.

⁵ See the Final Tariff Methodology here: <https://en.energinet.dk/Gas/Tariffs-and-Fees#Consultation>

Table 2 – Current level of reservation prices for short products

Firm capacity charge/reservation prices (short term)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
	Price in % of the annual capacity charge/reservation price											
Quarter	27,50%	27,50%	27,50%	27,50%	27,50%	27,50%	27,50%	27,50%	27,50%	27,50%	27,50%	27,50%
Month	10,40%	10,40%	10,40%	10,40%	10,40%	10,40%	10,40%	10,40%	10,40%	10,40%	10,40%	10,40%
Day	0,38%	0,38%	0,38%	0,38%	0,38%	0,38%	0,38%	0,38%	0,38%	0,38%	0,38%	0,38%
	Multiplier											
Quarter	1,10	1,10	1,10	1,10	1,10	1,10	1,10	1,10	1,10	1,10	1,10	1,10
Month	1,25	1,25	1,25	1,25	1,25	1,25	1,25	1,25	1,25	1,25	1,25	1,25
Day	1,40	1,40	1,40	1,40	1,40	1,40	1,40	1,40	1,40	1,40	1,40	1,40

A tariff structure without seasonal factors and a relatively low multiplier for short products has been fair and reasonable the last couple of years where there has been no scarce resource of capacity in the Danish gas system. In a gas system with an abundance of capacity, seasonal factors and high multipliers would not give any incentive for the shippers to use the gas system more efficiently.

During the Tyra redevelopment period the situation on the Danish gas market changes. Figure 1 and 2 below shows that the Danish gas market is very dependent on the Ellund connection.

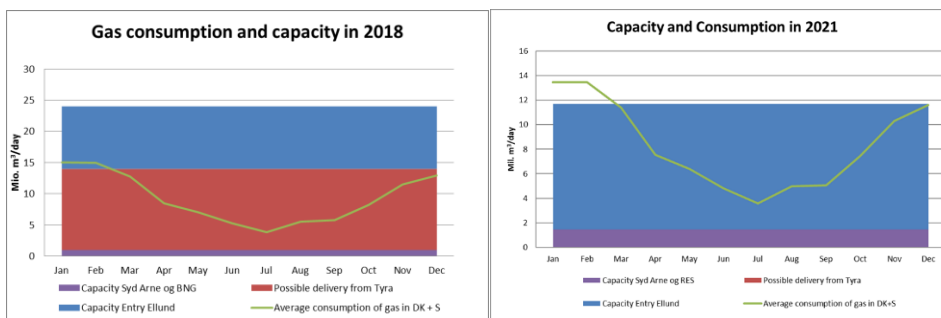


Figure 1 – Consumption and capacity 2018 Figure 2 – Consumption and capacity 2021

As it can be seen from Figure 2, during the Tyra redevelopment period the capacity at the Ellund connection is lower than the expected consumption of gas in Denmark and Sweden during January to March. The average consumption of gas in Denmark and Sweden displayed in Figure 1 and 2 is the expected gas consumption in a normal year with mean temperatures. In a cold year with lower temperatures than normal, the expected gas consumption can reach 17-19 million m³ per day during winter months. As illustrated in Figure 2 the entry capacity to Denmark is a scarce resource during the cold period in the Tyra redevelopment period.

This situation makes it necessary to reintroduce seasonal factors and a higher level of multipliers to the Danish gas market to encourage high utilisation of the import capacity and give shippers the incentive to use the gas system more efficiently.

3.2 Proposed tariff methodology – seasonal factors and a higher level of multipliers

The proposed new tariff structure for short products is shown below in Table .

Table 3 – Proposed level of reservation prices for short products

Firm capacity charge/reservation prices (short term)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
	Price in % of the annual capacity charge/reservation price											
Quarterly	35,2%	35,2%	35,2%	43,3%	43,3%	43,3%	24,7%	24,7%	24,7%	21,6%	21,6%	21,6%
Monthly	12,7%	14,7%	16,6%	16,6%	14,8%	16,1%	11,7%	10,9%	8,7%	7,8%	8,2%	9,0%
Daily	0,49%	0,59%	0,64%	0,64%	0,61%	0,62%	0,47%	0,42%	0,35%	0,30%	0,32%	0,36%
	Factor multiplied on the reservation price (Multiplier)											
Quarterly	1,41	1,41	1,41	1,73	1,73	1,73	0,99	0,99	0,99	0,86	0,86	0,86
Monthly	1,52	1,76	1,99	1,99	1,78	1,94	1,41	1,30	1,05	0,93	0,98	1,08
Daily	1,79	2,14	2,34	2,34	2,23	2,28	1,71	1,54	1,27	1,10	1,15	1,32

The calculations leading to the reservation prices in Table 3 is to be found in Appendix 3.

The calculations follow the guidelines in TAR NC article 13, 14 and 15 which is referred in Appendix 2.

The new tariff structure reintroduces seasonal factors, which gives the shippers an incentive to use the gas system more efficiently, as it becomes less expensive to buy short products during the warm periods and consequently more expensive during the cold periods.

The level of increase in the reservation price for short products in the coldest period is set to give an incentive to use more capacity during the warm periods. The highest increase in reservation price is set on day products, then month and quarter to ensure the efficient use of the gas system and long-term planning in the shippers booking strategy.

It is the intention of Energinet Gas TSO to set the reservation price for short products to a reasonable level throughout the year. It is Energinet Gas TSO's assessment that the proposed level sets a fair balance between giving an incentive for long-term planning and not making short products unreasonable expensive. The reservation price on short products gives incentive to buy more of the yearly capacity product, which benefits the security of supply. Yet the increase in the reservation price is not so large, that it disincentives all use of short products.

In previous market consultations on the tariff structure on the Danish gas market shippers have advocated that a tariff increase will impact Ellund Entry especially during the Tyra redevelopment and thereby reduce the commercial incentive of bringing gas to Denmark, when it is most needed. The reduction of the tariffs during the warm period will increase the commercial incentive to bring gas to Denmark, when it is needed. This proposal of introducing seasonal factors therefore takes into account the views of several market participants.

The arithmetic mean over the gas year of the product of the multiplier and the seasonal factor for the short term products are:

- Quarter: 1.25 (within the limit of 1 and 1.5 cf. Article 13 in TAR NC)
- Month: 1.48 (within the limit of 1 and 1.5 cf. Article 13 in TAR NC)
- Day: 1.77 (within the limit of 1 and 3 cf. Article 13 in TAR NC)

For December and January (expectedly the coldest months with the highest gas flow) the product of the multiplier and the seasonal factor are set at the highest level:

- Quarter: 1.73
- Month: 1.99
- Day: 2.34

The price for the daily capacity product in March is set at a high level (2.28). A high price for the daily capacity product in March was advised by the market, to make sure there is gas in storage in March, which is a critical month with respect to security of supply.

The new price structure will only apply for the Ellund entry- and exit point in the Danish gas system. Thus, seasonal factors will not be applicable for the points Nybro, RES Entry and Exit Zone Denmark and Dragør⁶. Ellund is chosen as the only point for applying seasonal factors as this is the crucial point with respect to security of supply during the Tyra redevelopment period. Furthermore, there is no need to cause undesirable effects Consequences of the method by applying seasonal factors to other points in the system. For example, with respect to the two points Exit Zone Denmark and Dragør an introduction of seasonal factors would expectedly significantly change the booking behaviour at these exit points as they vary with gas consumption which consequently would lead the seasonal factors to directly affect the end consumer agreements.

It is not expected that the reintroduction of seasonal factors will have any effect on yearly income of Energinet Gas TSO.

As mentioned earlier in the document, the reintroduction of seasonal factors is a temporary measure, which only applies during the Tyra redevelopment period where the capacity is a scarce resource in the Danish gas system.

3.3 Seasonal factors in other countries

Other Gas TSO's in Europe do also use seasonal factors to ensure an efficient use of the gas system. Table below shows the level of multipliers in Holland, Belgium, Poland and Germany.

Table 4 – Level of multipliers for short products in Holland, Belgium, Poland and Germany

Firm capacity charge/reservation prices in other countries (short term)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
	Multiplier											
GTS (Dutch Gas-TSO)	1,80	1,80	3,60	3,60	3,60	1,80	1,80	0,90	0,90	0,90	0,90	0,90
Fluxys (Belgian Gas-TSO)	1,50	2,00	2,40	2,60	2,50	2,00	1,70	1,20	1,00	0,70	0,70	0,90
Gaz-System (Polish Gas-TSO)	1,40	1,60	1,70	1,70	1,70	1,60	1,40	1,30	1,30	1,30	1,30	1,30
Gasunie (German Gas-TSO)	1,25	1,25	1,25	1,25	1,25	1,25	1,25	1,25	1,25	1,25	1,25	1,25

Holland, Belgium and Poland all have higher tariffs on the short product during the cold periods and lower tariffs during the warm periods – which give the shippers an economic incentive to use the gas system more efficiently. The participants on the European gas market (shippers and TSO's) are therefore used to act in a structure with seasonal factors. The German TSO, Gasunie, has no seasonal factors.

⁶ Given a method approval (pending) on a joint balancing zone between Denmark and Sweden, the two points *Exit Zone Denmark* and *Dragør* will cease to exist as of 1 April 2019 as they will be replaced with the point *Joint Exit Zone*.

4. Consequences of the method

By reintroducing seasonal factors in the tariff structure, the tariff method will temporarily go against harmonisation of price structures towards Germany (the adjacent German TSO's has no seasonal factors), which is otherwise desirable and was one of the reasons behind the removal of seasonal tariffs in 2016⁷. That is also the reason behind delimiting the proposal to the Tyra redevelopment period.

The implementation of seasonal factors is expected to cause a change in the shippers' booking behaviour. Specifically, the implementation of seasonal factors and a higher level of multipliers is expected to cause an increase in bookings primarily of the yearly capacity product. The reasoning behind this is the fact that short term products will become more expensive during the cold months and consequently the yearly capacity product will be more favourable.

The change in booking behaviour will only be applicable in Ellund being the only point where seasonal tariffs shall be valid. Thus, seasonal factors will not affect Nybro, RES Entry, Exit Zone Denmark and Dragør.

This proposal is targeted towards an optimal use of the Ellund Entry capacity as this will be the main supply source during the Tyra redevelopment period. Shippers who have not booked long term capacity in Ellund Entry will benefit from the less expensive short term capacity products applicable during the warm period. On the other hand, they will also be met by more expensive short term capacity products applicable during the cold period. Contrary, shippers with bookings lasting several years will benefit from the long-term multiplier in the range of 0.95-0.90 (if the proposal is approved by DUR).

Seasonal factors give shippers an economic incentive to make efficient use of capacity in the gas system which is needed during the Tyra redevelopment period⁸. This will expectedly incentivise gas inflow from Ellund during summer to be injected into storage and saved for winter when the demand for gas is high. Consequently, an improved use of gas storage for seasonal purposes in Denmark is expected.

Additionally, the high price for short term winter products will reflect the increased demand for capacity in the winter period.

The effect on consumers depend on their offtake as well as how the shippers booking behaviour may change as well as how transmission costs are passed on in the value chain. Shippers who have a portfolio characterised by consumers with a stable and predictable offtake will typically make greater use of long term capacity products and benefit from the long-term multiplier (0.95-0.90). Contrary to this is a portfolio characterised by a fluctuating offtake where a shipper will benefit from the low reservation price during the warm period, and can make use

⁷ Methodology for approval "Anmeldelse af multiplikatorer og sæsonprofil", 12 January 2016.

⁸ See Energinet Gas TSO's memo "Supply and demand 2019-2022" published by Energinet Gas TSO 21 December 2018.

of short term products which are more cost-efficient. These seasonal factors will therefore incentivise an efficient use of the gas system including the use of gas storage.

4.1 Energinet Gas TSO's overall assessment of the Methodology for Approval

Energinet shall ensure a sufficient and an efficient transport of natural gas, including the task of preserving and maintaining of the physical balance in the gas network. As transmission system operator Energinet shall also provide the security of gas supply in Denmark.

During the Tyra redevelopment period Energinet needs to make sure, that the utilization of the capacity in the gas system is optimal in order to provide the security of gas supply in Denmark.

In order to do so it is the opinion of Energinet, that an introduction of seasonal factors in the tariff structure as a temporary measure during the Tyra redevelopment period is an appropriate and necessary measure to ensure an efficient utilization of the gas system. It will provide an economic incentive to flow more gas during the warmer periods and storing the gas until the high demand in the winter and thereby support the security of supply.

It is the opinion of Energinet Gas TSO that the method with the consequences as described above is based on objective, transparent and non-discriminatory criteria. It reflects actual costs, facilitates efficient gas trade and competition, avoids cross-subsidies, and it neither restricts market liquidity nor distorts trade across borders of different transmission systems. The seasonal factors are calculated as described in article 14 and 15 and within the allowed range set in Article 13 (2) in TAR NC.

The method therefor complies with the requirements set in the Danish Act on Natural Gas Supply, section 7 (5) and 38 (1), and the requirements set in Article 13 in regulation No 715/2009 on conditions for access to the natural gas transmission networks and regulation 2017/460 establishing a network code on harmonised transmission tariff structures for gas and can be set for approval.

The legal framework is attached as [Appendix 2](#).

The calculations of the seasonal factors are attached as [Appendix 3](#).

5. Market consultation

Energinet Gas TSO has had the draft for this methodology application on seasonal factors in the tariff structure in market consultation for two sittings. First for three weeks running from 18 January to 8 February 2019 and second for one week running from 20 February to 27 February 2019. The market consultation was conducted by publishing a piece of news on our webpage for gas news⁹ where the consultation document¹⁰ (first) and the changes thereto¹¹ (second) was available for review.

⁹ <https://en.energinet.dk/Gas/Gas-news>

¹⁰ The news *Market consultation on seasonal gas tariffs during Tyra redevelopment*, published on 18 January 2019.

¹¹ The news *Revised proposal on seasonal gas tariffs during the redevelopment of the Tyra platform*, published on 20 February 2019.

Following the two sittings, Energinet Gas TSO discovered that the revised proposal did not comply with the Commissions regulation (2017/460) on establishing a network code on harmonized transmission tariff structure for gas¹² (TAR NC). Energinet Gas TSO has consequently revised the proposal to comply with TAR NC. This proposal comprises small adjustments compared to the revised proposal of 20 February 2019. Energinet Gas TSO will therefore send this proposal in market consultation at the same time the proposal is send to the Danish Energy Regulator for consideration. The third market consultation will run from 15 March to 25 March 2019. Consultation responses from the third sitting will be forwarded separately when the consultation period has ended.

Energinet Gas TSO has also held a User Group on 25 February 2019 with the objective to discuss the proposal on seasonal factors with the shippers. Four different shippers were represented as well as Gas Storage Denmark and the Danish Utility Regulator.

Here follows first a short summary of the comments regarding the proposal on seasonal factors stated at the User Group and second a summary of the consultation responses. Notes¹³ from the User Group were published at our webpage for gas news on 31 January 2019.

5.1 Summary of User Group

The shippers expect a higher winter price for gas because of the higher multipliers for daily capacity. Thus, the daily capacity product will work as an auction reservation price if Ellund Entry is fully utilized and the gas demand in Denmark is high. In that respect, a shipper raised concern towards the daily multipliers being too high and generally to high multipliers could refrain shippers from buying short term capacity products. Furthermore, high daily capacity prices can, on a given day, have the opposite effect on security of supply. The effect of seasonal factors it not expected to be significant during summer.

- The shippers noted that the likelihood of storage capacity being sold increases as seasonal factors increase the summer-winter spread in Denmark. A result hereof is increased security of supply.
- The seasonal factors presented prompts purchase of yearly capacity and quarterly capacity.
- The time for which seasonal factors is proposed to apply for does not match the Tyra period completely as seasonal factors will not have be applicable in the summer 2019 and will not be needed for the summer in 2022.
- Implementing seasonal factors as of 1 October 2019 would cause a higher winter price resulting in a higher price for end consumers. Thus, implementing seasonal factors on Exit Zone Denmark and Dragør will impact end consumer agreements. There has already been made many market arrangements for the coming winter based on

¹² <https://eur-lex.europa.eu/legal-content/DA/TXT/HTML/?uri=CELEX:32017R0460&from=EN>

¹³ The news *Update on market consultation on seasonal gas tariffs during Tyra redevelopment*, published 31 January 2019.

the current price structure. Therefore, it should be considered to postpone the proposal one year.

Shippers in favour of seasonal factors only being applied at Ellund Entry.

- Filling requirements were suggested as an alternative to seasonal factors to secure security of supply.
- The proposal is an attempt to solve a pricing issue in storage (too high storage prices) by making adjusting the transmission tariffs.

5.2 Summary of consultation responses

A shipper is against the reintroduction of seasonal factors whereas another expects the seasonal factors only to have a marginal impact on security of supply in the year 2020/2021 and no significant impact on the other two years during the Tyra redevelopment period. Another viewpoint is that seasonal factors is a good solution to secure an efficient use of the gas system.

One shipper states that the system seems to continue to be robust and able to handle normal situations during the Tyra redevelopment period. That said, it is agreed that critical infrastructure assets should be used efficiently. This holds primarily for storages and secondarily for transport capacity. In this respect, it is noted that the key driver for efficient use of storage is the tariff setting of the storage. If the tariff does not reflect market conditions, the storages could remain un-booked and unutilized despite a reintroduction of seasonal factors influencing the level of security of supply. Seasonal factors are not expected to change anything if there has not been sold sufficient storage capacity. The transmission capacity prices today already reflect supply and demand with the storage as the alternative price setting factor.

With respect to that, one shipper states that the reintroduction of seasonal factors seems to be driven by a concern for the storage not being booked and utilized because of the high tariff for storage and finds it inexpedient to change the tariff structure to solve an issue concerning security of supply. Transmission tariffs should not be designed to support the storage company.

With respect to transport capacity, one shipper states that they are in favour of seasonal factors only being applied at Entry capacity.

There is consensus with respect to the assumption that seasonal factors will increase the incentive to import for storage during summer and withdraw during winter.

One shipper suggests setting proportional multipliers for Quarter, Month and Day during winter to achieve a more efficient use of the gas transport infrastructure. With a multiplier for daily capacity during winter being too high there is a risk of Entry capacity not being booked even though there is demand for gas at the Danish and Swedish gas market. With proportional

multipliers for quarter, month and day a shipper can book capacity whenever needed instead of only having the economic incentive to withdraw from storage.

It is stated that the ratio between the products should be higher to secure an efficient use of the gas system. It is proposed to increase the seasonal tariffs on the short term capacity products during winter. The reason for this is that transmission capacity alone cannot secure the security of supply. Furthermore, short term capacity products do not help to secure efficient use of the system and does not give an incentive to optimize the whole system. By increasing the multiplier on short term capacity products during winter, the shippers who does not help to secure security of supply by buying long term capacity will pay a higher price.

It is suggested to set the multiplier in March as the highest or at least at a level equal to January and February. The reason for this is that March is a critical month with respect to security of supply. If the TSO wants the shippers to keep gas in storage for March it is necessary with a high multiplier for March.

One shipper expects a negative impact on the market caused by more volatile tariffs.

Instead of reintroducing seasonal factors, a shipper proposes that the transmission system operator buys short term filling requirements at a market based price instead, if needed. Cost hereto should be allocated the emergency tariff to affect those who gain from security of supply. On that note, it is expected that the price for security of supply will increase during Tyra.

One believes that more yearly capacity gives grounds for more gas trade, whereas short term capacity products creates a barrier. The reason for this is that short term capacity is not considered as sunk cost. If shippers buy yearly capacity, the capacity will be considered as sunk, and thereby enable the shipper to take advantage of the movements in the gas price which generates more transparency and liquidity on the gas exchange.

Seasonal factors should at the earliest be implemented by storage year 2020/2021 as the storage is already booked for storage year 2019/2020. Furthermore, it is proposed to postpone the decision on whether to implement seasonal factors to spring 2020 to be able to use the insight from the winter 2019/2020.