Gasgrid Finland Oy Wholesale customer forum - May 25th 2023 – Ruoholahti, Helsinki

Agenda and schedule

- 9.30 Registration and coffee
- 10.00 Opening of the wholesale market forum
 - Gas market transition Lessons learned from the 1st year; Esa Hallivuori Gasgrid Finland
- 10.10 Balticconnector CAM public consultation, assessment and roadmap
 - Presentation; Leena Sivill, AFRY
 - Questions from participants; Esa Hallivuori, Mika Myötyri Gasgrid Finland, Erkki Sapp Elering AS
- 11.00 Balticconnector capacity restrictions during the summer 2023
 - Presentation Esa Hallivuori Gasgrid Finland Oy
- 11.20 Mentimeter feedback poll
- 11.30 Event closing



Market insights – First operational year under energy crisis

Energy crisis – Impacts of Russian invasion to Ukraine

- The gas prices had been rising ever since fall 2021 due to RU limiting gas exports to Europe. After the RU Invasion 2022 the gas prices just kept on rising. The apex of prices was reached on fall 2022.
- The uncertainty of market was quickly reflected by market resulting to lower demand and lesser commitment to longer term products
- Part of the gas users either reduced their own usage or switched to alternative fossil fuels, for example to coal and oil
- The total volumes in 2022 were cut to half to 11,9TWh

Uncertainty – Security on supply and capacity congestion issues

- Russia used energy, and particularly natural gas as a weapon against
 Europe Finland decided to start the FSRU project on March 2022
- Gas supply from Russia to Finland ended on 20th of May 2022
- North stream pipelines exploded on 26th of September 2022
- Hamina LNG started its commercial operations in October. Inkoo FSRU terminal was commissioned at the last days of 2022
- Luckily the winter 2022 2023 was mild which helped us to cope



Lähde: https://tradingeconomics.com/commodity/eu-natural-gas



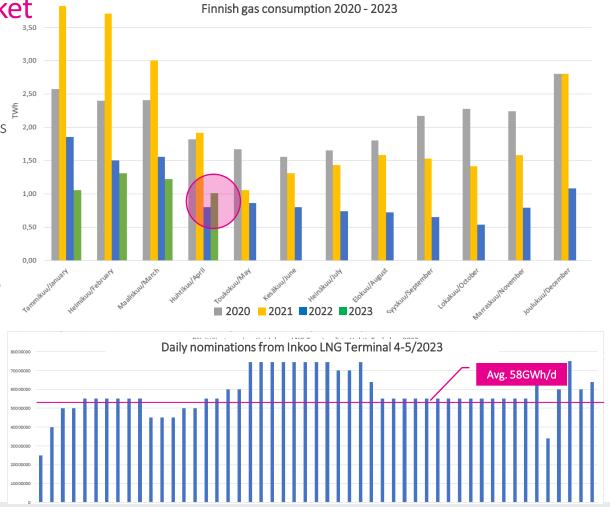
Market insights – Indicators of recovering market

Competitiveness – Lowered prices and enhanced capacity

- The current price of natural gas has dropper to a 1/10th of the top price during the Q2/2022 and Q1/2023
- TTF Front month reached 30€/MWh level on early May. The previous equally low price quotation was in dated 1st of May 2021
- The lower price has improved the market demand. Some users have readjusted their fuel portfolio back to natural gas from coal and oil
- April was the first month after the RU Invasion when gas consumption exceeded the preceding reporting period
- There has been a solid demand of the Inkoo Injection capacity. Since 1st of April total of 3,1TWh gas has been injected to gas system
- The average daily nomination rate has been 58GWh/d

Prospects – Following winters and future years

- The following winters will still be challenging. Gas injection from Inkoo is needed to fulfil the market demand during winter season.
- Renewable gases have huge potential for gas markets. The injection capacity of different sources will be multiplied in near future years.



GASGRID

Evolution of the gas market – Fundamental learnings and essential focus areas

1. Understanding the market evolution – Drastic transition from pipeline gas system to LNG system

- Transformation from ultra flexible pipeline system to almost zero flexibility LNG system in less than a year
- All market parties have been on a learning curve through the past year, still lot to learn from next following years
- Market rules, terms, routines and operations are drafted for the 'late' stable gas system. Adaptation to current reality is needed.
- It is critical to analyse and understand the dynamics of the evolving market when applying changes (if any) to the regime

2. Promote awareness – Ensuring the safe on supply is more critical than ever

- All involved market participants including TSO's and authorities have their own spesific role and responsibilities
- Physical balance management and maintaining the grid operability is equally critical as managing the commercial balance
- 3. Improve stability and transparency towards market Enabling stable business regime
 - Capacity allocation and utilization, managing congestion and providing necessary market information
 - Balance management regime and balancing procedures in different market situations and scenarios
- 4. Enhance new opportunities Promoting the commercial feasibility of renewable gases as part of the gas ecosystem
 - Renewable gases are huge potential for the gas market. The commercial model has to evolve and adapt accordingly.



Balticconnector CAM public consultation, assessment and roadmap Leena Sivill - AFRY

Market consultation results on Balticconnector capacity allocation method

the of the second the

Arranged by Gasgrid Finland and Elering on 3 – 17 May 2023

Reasons for the market consultation on Balticconnector capacity allocation method

Gas markets in the Baltic States and Finland have experienced fundamental changes since 2020

- Imports of Russian gas have ended
- A new floating LNG terminal has been commissioned in Inkoo, Finland
- Capacity increases in Baltic gas transmission systems and Inčukalns gas storage in Latvia
- The commissioning of a new interconnector GIPL between Lithuania and Poland in 2022

Some market participants have started booking capacity in Balticconnector without actually using it, rendering the capacity utilization ineffective



Is there a pressing need to change the capacity allocation mechanism?

If so, what would be the preferable mechanism?



Market consultation document introduced the underlying issues, some of the available choices how to tackle these, and the main open questions

2

2.1

1 Future capacity allocation model for Balticconnector in 2023 1.1 Background and objectives Sas markets in the Baltic States and Finland have experienced fundamental changes since 2020, By January 2023, imports of Russian gas have ended, and a new floating LNG terminal has been commissioned in Inkoo, Finland, to secure gas supply in the region, resulting in rapid transformation from pipeline market to LNG. Other changes include capacity increases in Baltic gas transmission systems and Inčukalns gas storage in Latvia, and the commissioning of a new interconnector GIPL between Lithuania and Poland in 2022. The implicit capacity allocation method currently applied in Balticconnector was originally designed as a temporary solution because of the planned full market integration between the Baltic States and Finland. Before the commissioning of Balticconnector interconnector and Finnish gas market opening, risks associated with congestion were considered manageable and their cost lesser than the establishment of capacity auctions. Furthermore, the TSOs and national energy authorities agreed to closely monitor the market developments and take corrective actions if needed. Since then, full market integration has been postponed, and the corrective sacting if needed. Since then, full market integration has been postponed, and the corrective sactically changed as described above. Moreover, during periods of capacity scarcity, some market participants have started booking capacity without actually using it, rendering the capacity ullication ineffective (further details provided in Section 2.1). X are usult, Balticconnector's capacity allocation method needs to be re-assessed.
1.1 Background and objectives Gas markets in the Baltic States and Finland have experienced fundamental changes since 2020. By January 2023, imports of Russian gas have ended, and a new floating LNG terminal has been commissioned in Inkoo, Finland, to secure gas supply in the region, resulting in rapid transformation from pipeline market to LNG. Other changes include capacity increases in Baltic gas transmission systems and Inčukalns gas storage in Latvia, and the commissioning of a new interconnector GIPL between Lithuania and Poland in 2022. The implicit capacity allocation method currently applied in Balticconnector was originally designed as a temporary solution because of the planned full market integration between the Baltic States and Finland. Before the commissioning of Balticconnector interconnector and Finnish gas market opening, risks associated with congestion were considered manageable and their costs lesser than the establishment of capacity auctions. Furthermore, the TSOs and national energy authorities agreed to closely monitor the market developments and take corrective actions if needed. Since then, full market integration has been postponed, and the market fundaments have drastically changed as described above. Moreover, during periods of capacity scarcity, some market participants have started booking capacity without actually using it, rendering the capacity aulication method needs to be re-assessed. In this paper, we first introduce the historic behaviour of nominations and capacity allocation in Balticconnector, how this is likely to change in the current market situation and discuss their implications on the market. We then continue by presenting alternatives how the model could be changed and how these changes could help to alleviate some of the current issues. The different alternatives are also evaluated according to selected criteria. The most
1.1 Background and objectives Gas markets in the Baltic States and Finland have experienced fundamental changes since 2020. By January 2023, imports of Russian gas have ended, and a new floating LNG terminal has been commissioned in Inkoo, Finland, to secure gas supply in the region, resulting in rapid transformation from pipeline market to LNG. Other changes include capacity increases in Baltic gas transmission systems and Inčukalns gas storage in Latvia, and the commissioning of a new interconnector GIPL between Lithuania and Poland in 2022. The implicit capacity allocation method currently applied in Balticconnector was originally designed as a temporary solution because of the planned full market integration between the Baltic States and Finland. Before the commissioning of Balticconnector interconnector and Finnish gas market opening, risks associated with congestion were considered manageable and their costs lesser than the establishment of capacity auctions. Furthermore, the TSOs and national energy authorities agreed to closely monitor the market developments and take corrective actions if needed. Since then, full market integration has been postponed, and the market fundaments have drastically changed as described above. Moreover, during periods of capacity scarcity, some market participants have started booking capacity without actually using it, rendering the capacity aulication method needs to be re-assessed. In this paper, we first introduce the historic behaviour of nominations and capacity allocation in Balticconnector, how this is likely to change in the current market situation and discuss their implications on the market. We then continue by presenting alternatives how the model could be changed and how these changes could help to alleviate some of the current issues. The different alternatives are also evaluated according to selected criteria. The most
2020. By January 2023, imports of Russian gas have ended, and a new floating LNG terminal has been commissioned in Inkoo, Finland, to secure gas supply in the region, resulting in rapid transformation from pipeline market to LNG. Other changes include capacity increases in Baltic gas transmission systems and Inčukalns gas storage in Latvia, and the commissioning of a new interconnector GIPL between Lithuania and Poland in 2022. The implicit capacity allocation method currently applied in Balticconnector was originally designed as a temporary solution because of the planned full market integration between the Baltic States and Finland. Before the commissioning of Balticconnector interconnector and Finnish gas market opening, risks associated with congestion were considered manageable and their costs lesser than the establishment of capacity auctions. Furthermore, the TSOs and national energy authorities agreed to closely monitor the market developments and take corrective actions if needed. Since then, full market integration has been postponed, and the market fundaments have drastically changed as described above. Moreover, during periods of capacity scarcity, some market participants have started booking capacity without actually using it, rendering the capacity utilization ineffective (further details provided in Section 2.1). As a result, Balticconnector's capacity allocation method needs to be re-assessed. In this paper, we first introduce the historic behaviour of nominations and capacity allocation in Balticconnector, how this is likely to change in the current market situation and discuss their implications on the market. We then continue by presenting alternatives how the model could be changed and how these changes could help to alleviate some of the current issues. The different alternatives are also evaluated according to selected criteria. The most
important criteria are that 1) capacity utilisation rate is enabled to become as high as possible and hoarding is avoided while 2) at the same time making it possible for shippers to secure their transport rights in advance in a predictable and fair way, 3) the compliance of the capacity allocation method with EU legislation, and 4) the cost efficiency of the method. Finally, we summarise the key findings, and present the questions of this market consultation.

Challenges of the current capacity allocation model

Historical behaviour of Balticconnector nominations and capacity allocation

Nominations in Balticconnector already exceeded the respective technical transport capacity in winter 2020. This was repeated in winter 2021 with even higher excess as shippers deliberately over-nominated their volumes to maximise their own proportion of the available transfer rights (see Figure 1 below). However, congestion was still manageable during these periods since Finland was supplied by flexible Russian gas via Imatra entry point. Hence shippers or end-users were effectively able to balance out their shortage of gas even if their transport rights through Balticconnector were insufficient.

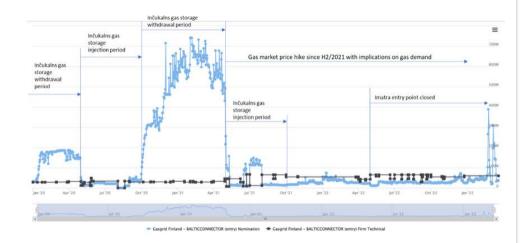
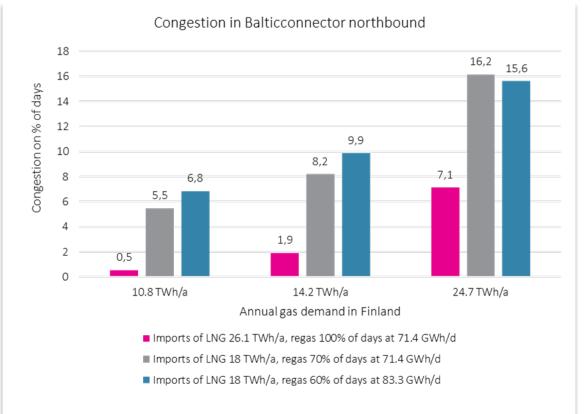


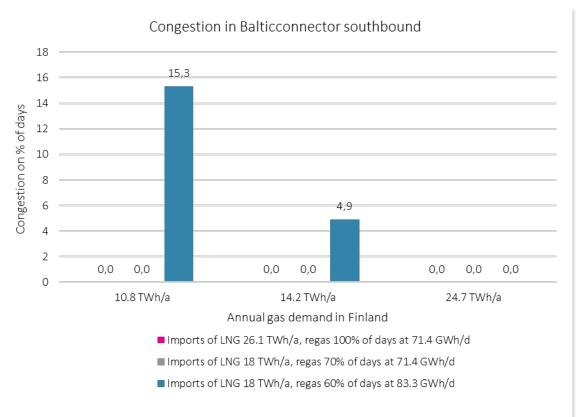
Figure 1. Balticconnector technical capacity versus nominations between 2020-2023



Probability for northbound congestion depends heavily on gas demand in Finland while there likely is no congestion southbound since Inkoo LNG regas rates can be controlled



Daily demand profile in Finland according to that of 2021 with daily maximum restricted to 135 GWh/d. Daily demand deduced by 40 GWh/d in the first scenario and by 30 GWh/d in the middle scenario compared to the daily demand in 2021. Capacity of Balticconnector 60 GWh/d northbound. Every third 2-week long slot is unreserved in the middle scenario. Every third 2-week slot is unreserved in the left scenario and, in addition, regasification is done within 12 days in each reserved slot.

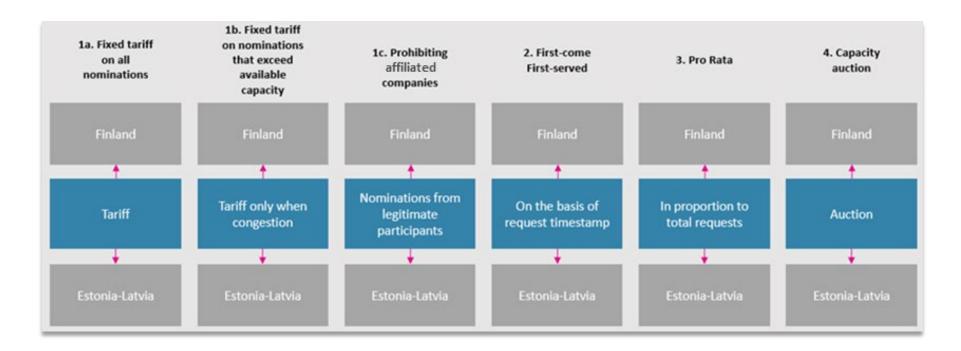


Daily demand profile in Finland according to that of 2021 with daily maximum restricted to 135 GWh/d. Daily demand deduced by 40 GWh/d in the first scenario and by 30 GWh/d in the middle scenario compared to the daily demand in 2021. Capacity of Balticconnector 78 GWh/d southbound. Every third 2-week long slot is unreserved in the middle scenario. Every third 2-week slot is unreserved in the left scenario and, in addition, regasification is done within 12 days in each reserved slot.



All alternative capacity allocation methods have their benefits and drawbacks – this is why the market opinion matters

We provided a brief evaluation of each alternative with their strengths and weaknesses





Market consultation questions and responses

- Market consultation entailed open questions on:
 - Strengths and weaknesses of the current method
 - Introduction of tariffs on nominations
 - Prohibiting the use of affiliated companies to avoid renomination fees and maximise transport rights
 - Needs for capacity booking in advance
 - Opinion on capacity auctions as a method
- All shippers and end-users active or inactive in the Finnish and Baltic markets were invited to respond
- Gasgrid and Elering received in total 8 responses
 - These were representative of the market





Pros and cons of the current capacity allocation method

	Often	Seldom
Similar opinion	Current mechanism works fine when there is no congestion (8)	The market should continue with the current system (2)
	Congestion does not happen often (5)	
	Market parties are used to the current capacity allocation method (3)	
Sim	There is no experience on Inkoo LNG terminal operation so far (4)	
Different opinion	Overnominations during congestion should be dealt with in some way (6)	Current model did not work last winter (1)



Different capacity allocation method depending on flow direction?

	Often	Seldom
Similar opinion	Not sensible (5)	
Different opinion		Depends on allocation mechanism and capacity products (1)



Capacity booking in advance?

	Often	Seldom
Similar opinion	Yes for short-term products (5) No need for long-term products (yearly or longer) (8)	Daily capacity booking either 365 or 180 days in advance (1)
		Daily capacity booking 3-5 days in advance (1)
		Monthly and weekly products (1)
Different opinion		Market parties have learned to live without capacity booking (2)



Prohibition of affiliated business corporations?

	Often	Seldom
Similar opinion	Yes because this would be fair and functional for all (5) This rule should become in force by 1 Oct 2023 (4)	
Different opinion	Prohibition would give no advantage since its enforcement would be difficult or this is not the root cause (3)	



Tariff on nominations always or under congestion?

	Often	Seldom
Similar opinion	Tariffs would only add costs to end-users (8) Application of tariffs only during congestion would lead to risk margins being added to end-user prices (4)	
Different opinion		Tariffs only during congestion are more functional than having a tariff always since it would target only the periods with congestion (2) Tariffs under congestion could be implemented the fastest if daily capacity products would become available early enough to prepare for congestion beforehand (1)



Capacity auctions?

	Often	Seldom
Similar opinion	No, because auctions would only add costs, be difficult to implement, and would likely lead to contractual congestion with even less capacity for the short-term market (7)	Capacity auctions should be considered as a goal but only if auctions are limited to congested periods and if there is sense for auctions in a declining market (1)
Different opinion		



Timing of changes, if any?

	Often	Seldom
Similar opinion	Not earlier than one year if there is capacity booking in advance (4) From 1 Oct 2023 onwards to prohibit the use of affiliated companies (4)	
Different opinion		If there were long-term capacity products at market, not earlier than two years (1) If there is capacity booking from 1 Oct 2023 or 1 May 2024 onwards (1)



Next steps

This was the first impression of the market consultation results and entails no conclusions

Gasgrid and Elering will continue analysis of the answers, the need for changes to the rules, and will discuss with the authorities on potential changes

- If there is a proposal to change the rules, the authorities will arrange an official public consultation on the revisions during the autumn period
 - Possible minor changes will become in force on 1 Jan 2024
 - Possible new method to allocate capacity on 1 Oct 2024 at the earliest





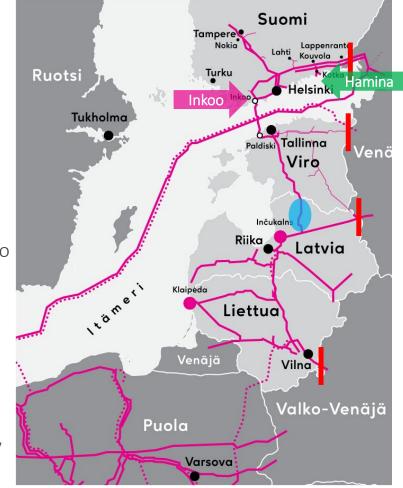
elering



Balticconnector capacity restrictions during summer period

BC Capacity restrictions during summer period

- During the midsummer weeks 26 31 (26.6. 31.7.2023) the transmission capacity from Finland to Baltics and Estonia to Finland are extremely limited due to the obligatory maintenance works of Vireši – Tallin transmission pipeline on Latvia's pipeline section
- During the defined maintenance period there will be no physical flow from Baltics to Finland nor from Finland via Balticconnector towards Baltics
- In practice this means that all natural gas consumed in Finland has to be commercially nominated and physically injected from Inkoo or Hamina LNG terminal
- Gasgrid want's to emphasize the importance of awareness to all the market participants to consult their gas sourcing partners regarding the necessary gas volumes during the maintenance period
- There aren't any extraordinary measures nor mechanisms which would provide sourcing flexibility to cover any excessive gas consumption. The flexibility of isolated gas system is very limited and It is essential to maintain the balance and thus that secure gas sourcing.
- To cover the anticipated injection capacity demand during the maintenance period Floating LNG Terminal Finland has offered an additional 500GWh late spot capacity in July





Mentimeter feedback survey

Go to www.menti.com and use the code 3433 0827



Thank you for participating to Wholesale customer forum

The next forum will be organized during Q3/2023



Evaluate next claims

Strongly disagree

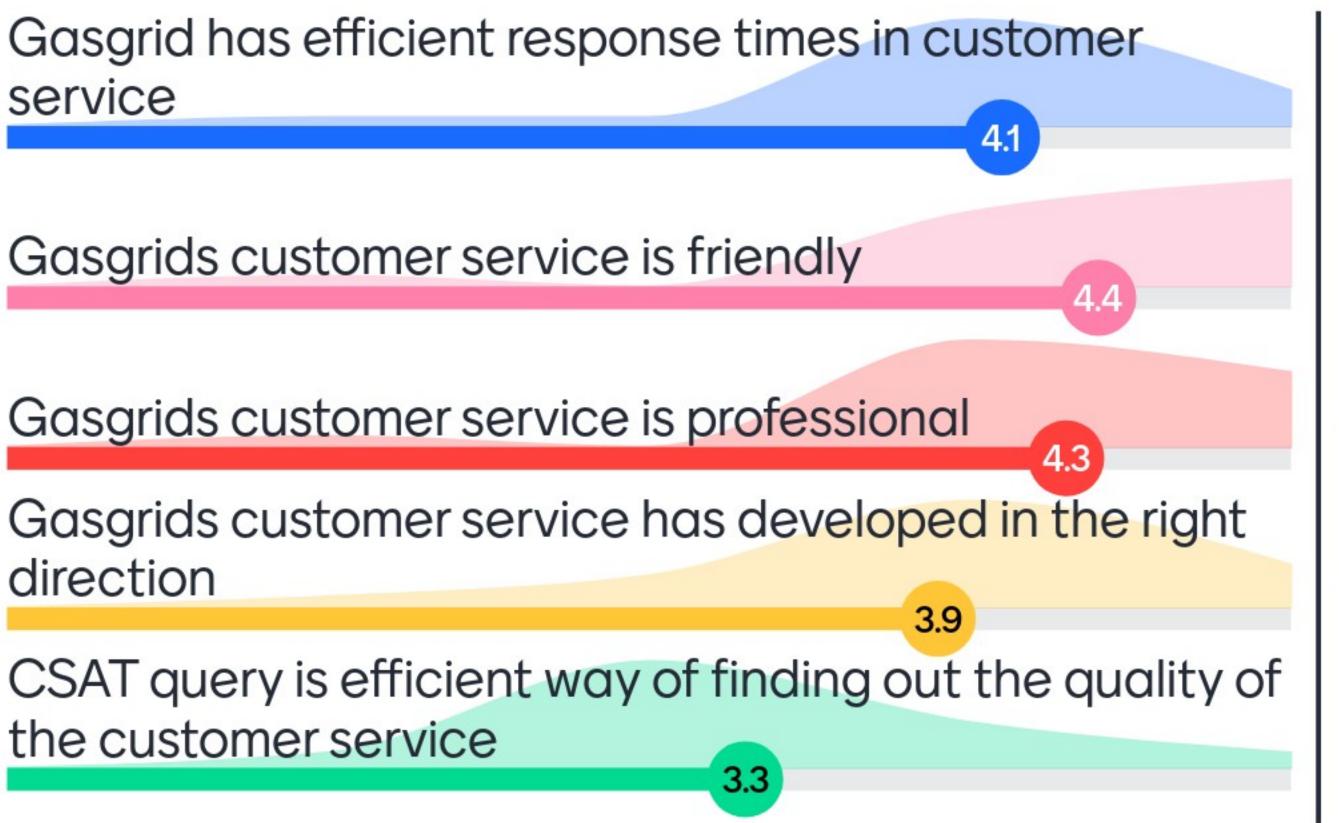
service

Gasgrids customer service is friendly

Gasgrids customer service is professional

direction

the customer service



Strongly agree





Functioning of Finnish gas market

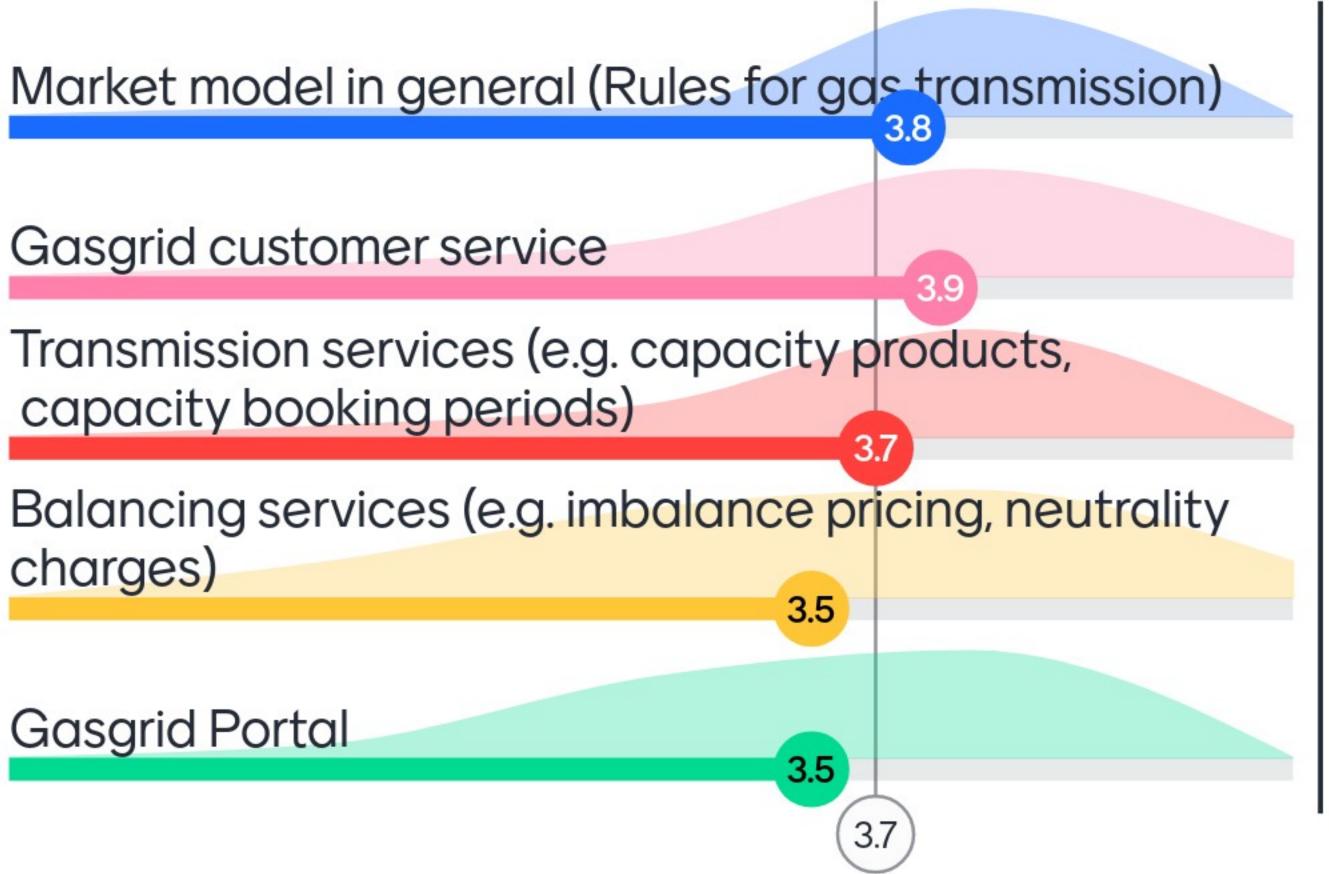
Gasgrid customer service

Transmission services (e.g. capacity products, capacity booking periods)

charges)

Gasgrid Portal

Bad



Excellent



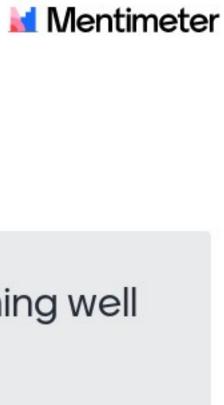


What is working well in the Finnish wholesale market?



The ability of large gas consumers to quickly switch to other fuels. This saved the past Winter.





Overall the market is functioning well given the circumstances



Where do you see room for improvements?

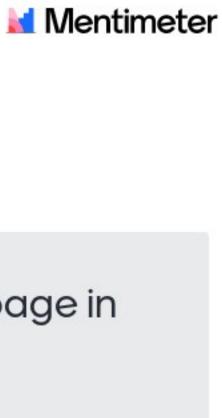
are currently missing.

Daily actual volumes in Finland should be available e.g. in the Gasgrid Portal

More data on the current situation in the market (flows, capacities etc) should be available

Data/flow availability.

5

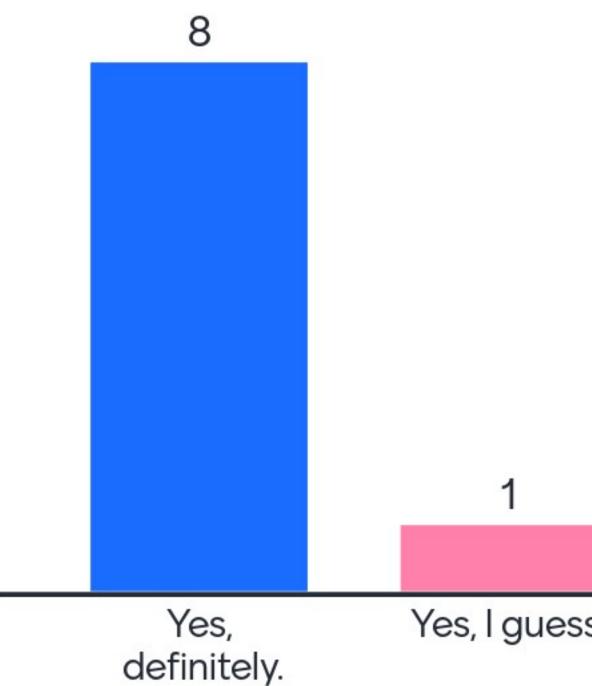


Daily actual volumes by entry point

Market data, improved web page in English



Was this Forum worth your valuable time?





	0	0
SS.	No, but there were interesting moments during the Webinar	No, it wasn't.



Free word - comment/question/feedback



