

26/04/2023

1 Future capacity allocation model for Balticconnector in 2023

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 fundamentals 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.

2 Challenges of the current capacity allocation model

2.1 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.

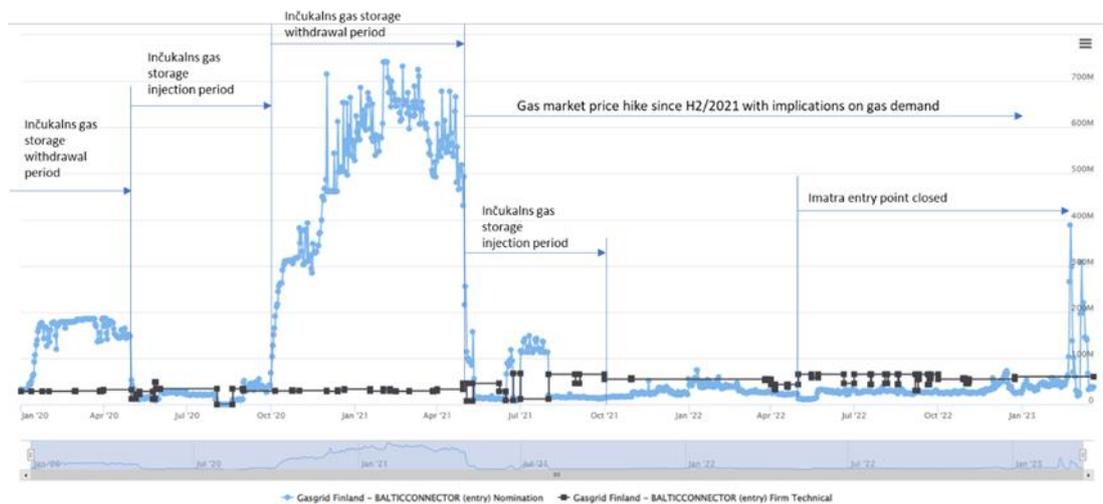


Figure 1. Balticconnector technical capacity versus nominations between 2020-2023

Since May 2021, nominations remained rather stable until winter 2022/2023 marking the first cold period in Finland relying on imports from Balticconnector (see Figure 2 below)¹. In February 2023, the demand in the Finnish gas market was forecasted to exceed the physical transmission capacity of Balticconnector, forcing the Finnish transmission system operator to take extraordinary measures to maintain system balance. The immediate consequence of these measures was an excessive cost of balancing gas to the shippers. At the same time, those shippers, who had anticipated congestion in Balticconnector, had nominated considerably more gas in Balticconnector than what they actually needed. By doing so, these shippers effectively caused a deficit to other shippers. While the entire system was operating under a deficit mode, the resulting deficit could not fully be balanced out by trading in the gas

¹ In addition to this, Hamina LNG terminal began its commercial operation in 10/2022 with high-pressure capacity of 200 MW (4.8 GWh/d) and, from 01/2023 onwards, with total capacity of 250 MW (6 GWh/d).

exchange. This led to additional costs to the shippers in deficit compared to the ones who were able to maximise their transport rights.

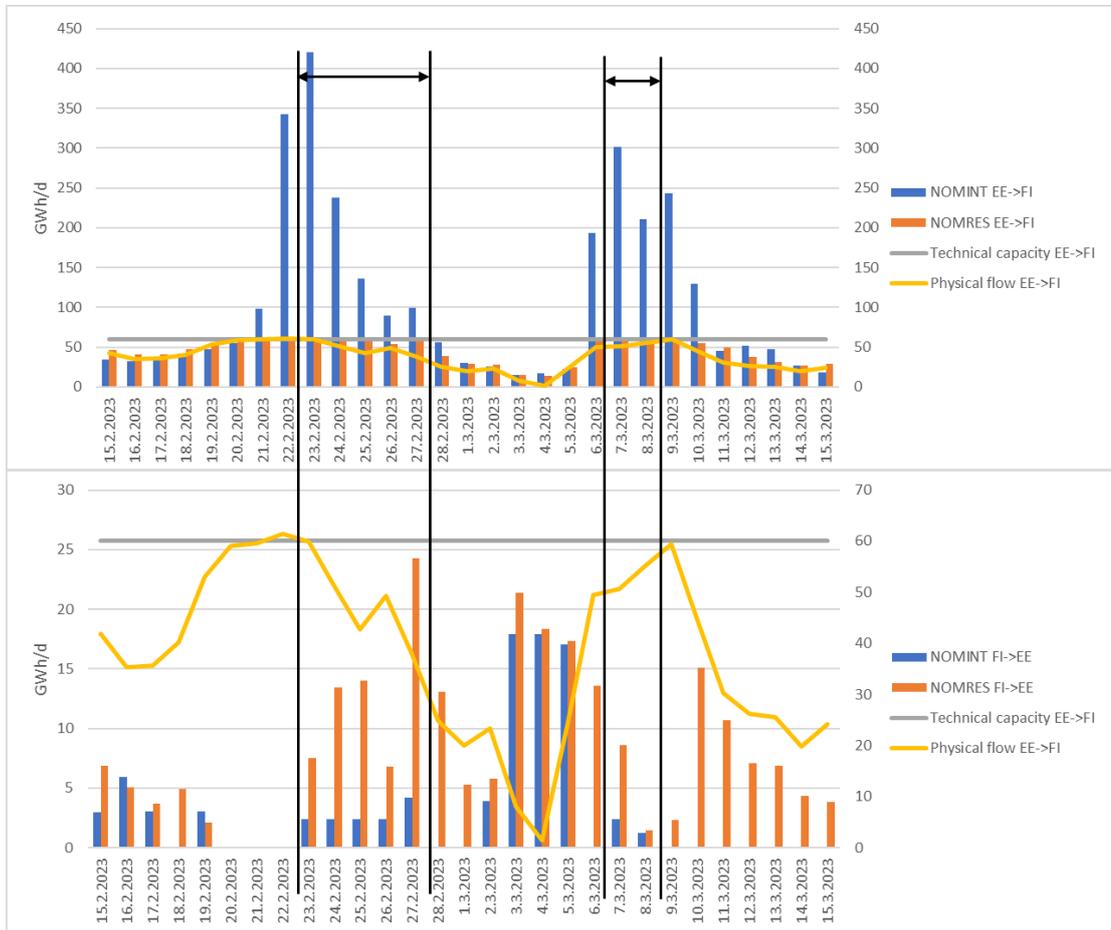


Figure 2. Balticconnector technical capacity versus nominations. NOMINT refers to nominations sent by shippers (excl. nominations from GET Baltic gas exchange) to the transmission system operator and NOMRES to nominations accepted by the transmission system operator (incl. nominations from GET Baltic gas exchange).

One additional hardship, which may impact the future of Balticconnector, concerns the shippers' over-nominations and their partnering shippers nominating to the opposite direction in order to avoid underutilisation fees. Underutilisation fees are payable by shippers who nominate downwards more than what they are allowed to do by the market rules. As shippers who over-nominate might get more transport rights than what they actually need, they ask their partnering shippers to send out nominations to the opposite direction. Once the balance of these companies is summarized across the markets, the underutilization fee is avoided while both shippers are in balance in their own markets. This behavior entails a risk for transmission system operators not being able to offer sufficient virtual capacity in Balticconnector to other shippers. This would leave part of the Balticconnector's transport capacity unused even if there was a genuine need for that capacity. We may already have witnessed this behavior (see the highlighted periods in Figure 2 above). An investigation is

currently on-going by authorities on whether the above behavior fulfills the criteria of market manipulation.

2.2 Implications of current capacity allocation method on individual shipper's portfolio management

A shipper's sales and sourcing portfolio consists of buy and sell contracts of different delivery period, volume, and pricing. The majority contracts are typically hedged for variation in price and volume while some contracts entail uncertainty.

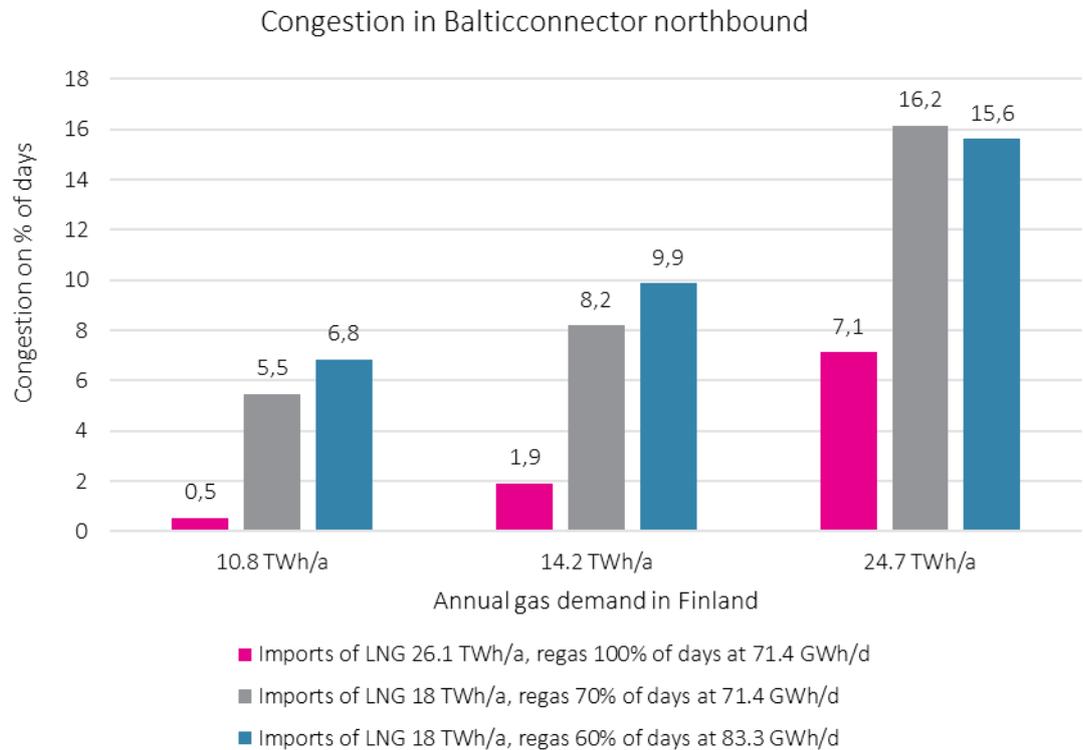
Under the current capacity allocation method in Balticconnector, a shipper faces uncertainty until the day ahead on how much gas he can transport over Balticconnector. The requested transport volume may significantly become reduced due to congestion. As a result, the shipper must have contracts that allow for non-delivery, or the shipper must procure the missing volumes from other shippers through flexible contracts or gas exchange, or the shipper tries to increase his transport volumes through within-day nominations. As a last resort, the shipper must pay for balancing gas to the transmission system operator if he remains short at the end of the gas day. Similarly, speculative over-nomination in Balticconnector may lead to shippers being allocated with higher accepted nominations than intended leading to a need to reduce long position.

To summarise, the above-described uncertainty over transport volumes can entail an additional cost to shippers and, consequently, to the end-users. The question remains if this cost is comparable to the cost of setting up longer capacity products and possibly imposing tariffs on capacity products. In consideration of this, it should be noted that imposing transport tariffs on Balticconnector will lead to a reduction of transport tariffs elsewhere since the profit of transmission system operators is regulated. In any case, congestion in Balticconnector represents a cost to end-users in one way or the other.

From a shipper's perspective, there now exists a new need to transport significant daily volumes of regasified LNG to the Baltic markets over distinct time periods, while the same is needed in reverse to Finland when there is no supply from the floating LNG terminal. The implications of this may be significant on an individual shipper's portfolio management. This is further discussed in the next section.

2.3 Flow scenarios of Balticconnector in the future

In the future, we may expect Balticconnector to continue to be congested northbound. As demonstrated in Figure 33 below, congestion is the least likely with a combination of low gas demand and high LNG import rates in Finland. Vice versa, congestion is highly likely with high gas demand and low LNG import rates.



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.

Figure 33. Percentage of days per year when Balticconnector is congested northbound according to three flow scenarios

The above flow scenarios are simplifications based on demand data in Finland 2021 and fixed daily rate assumptions for regasification and transmission capacities. In reality the regasification rates and transmission capacities of a physical gas system are not entirely fixed as follows:

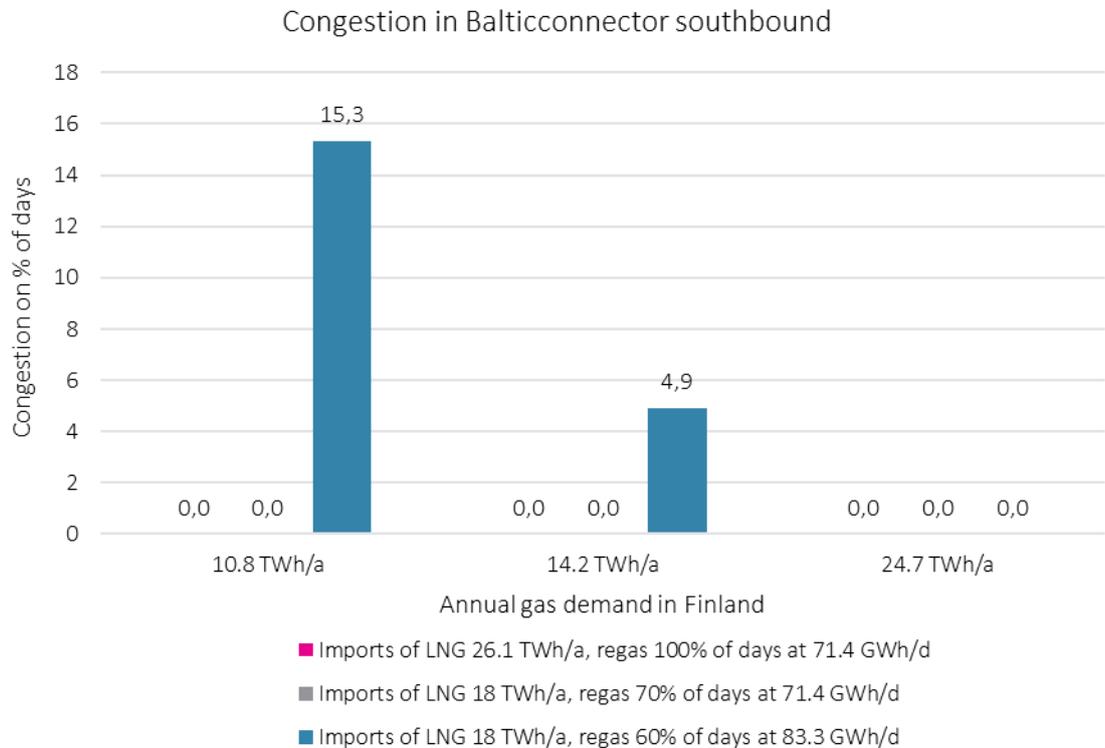
- Balticconnector is congested northbound during peak demand days in Finland in all the flow scenarios unless the regasification rate at the LNG terminal can temporarily be adjusted to match the peak demand. The regasification rate can technically be raised as high as 140 GWh/d, whereas less LNG is then available to be regasified later during a particular slot. Hence it is not always possible to overcome northbound congestion in Balticconnector by adjusting the daily regasification rate.
- Whenever there are no cargos to the LNG terminal, Balticconnector remains as the sole gas supply route to Finland². This is demonstrated above in those scenarios

² In addition to Hamina LNG terminal.

where regas is not operated every day (regas operational for 70% or 60% of the year). Hence, we are highly likely to experience congestion in Balticconnector northbound during periods of no or little regasification from the LNG terminal in wintertime. This is further amplified by potential planned or unplanned reductions in Balticconnector transmission capacity northbound. In addition, the regasification slot length could be to extend in cases when the following slot is unreserved. This would allow more flexibility for the terminal users to adjust their daily regasification rates according to the market situation at hand.

- It can be reasonably expected that market participants utilise the LNG terminal in a way that more LNG is imported during high demand periods (wintertime) than in low demand periods. While this reduces the risk for northbound congestion on Balticconnector, it is not certain that all winter slots will be reserved.
- The transmission system operators can actively utilise some, although limited, volume of linepack to adjust variation between daily supply and demand. The opportunity for this is short-lived if the system remains short on consecutive days.

Congestion may arise southbound if there is low demand in Finland and the regasification schedule of the floating LNG terminal is tight at the same time (see Figure 4 below). Generally, the likelihood for congestion is much lower to southbound than northbound direction due to Balticconnector's higher availability and Finland being an end-of-pipeline country. As operational planning at the LNG terminal (both slot length planning and regasification schedule planning) takes into account Finnish demand, this will effectively reduce the likelihood for southbound congestion.



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.

Figure 4. Percentage of days per year when Balticconnector is congested southbound according to three flow scenarios

In addition to the flow scenarios presented above, congestion southbound may realise if an LNG cargo arrives late with limited time to the next scheduled cargo and the demand in Finland is low at the same time, or if Balticconnector is subject to severe planned or unplanned capacity reductions southbound. The probability for southbound congestion would be reduced if the slot length in the floating LNG terminal could also be relaxed on-demand whenever physically and commercially possible.

Commercial congestion is always possible, i.e., shippers nominating more capacity in Balticconnector than what the market actually needs. This is the case if some shippers have over-nominated their transport volumes in anticipation of congestion while others have not. If the total nominations exceed the available transport capacity due to these speculative expectations, as a result, some shippers end up long and some may end up short while the entire system is long. In these cases, it is fair to say that shippers, who expected congestion, caused an imbalance for all, the system included. Normally, this situation is dealt with by each shipper aiming to avoid imbalance charges, i.e., shippers with deficit will buy gas from those with excess or utilise counter-nominations as explained in Section 2.1. This will not, however,

be fully possible if the entire system is short, i.e., the shippers have contracted themselves to supply more gas in total than what the system can physically deliver.

A key question therefore remains, **whether a formal capacity booking system would reduce the transport costs over Balticconnector compared to the current implicit mechanism**, given that the shippers will in any case have to pay extra for their transport either through 1) a fixed tariff or auction in the case of formal capacity booking (or having to buy capacity from the secondary market or become subject to imbalance), or 2) just balancing their portfolios whenever short or long in the case of the current mechanism. In the above, one should consider the optimal solution for northbound and southbound directions separately since these have different constraints. In the case of introducing capacity fees, one should also pay attention to costs associated with alternative LNG supply routes, storage in Inčukalns, and their implications to end-users **if Balticconnector is subject to tariffs or auctions in one or two directions**. In addition, consideration should be given to capacity products since standard products do not necessarily match with the actual transport needs, for example, due to the timing of the Inkoo LNG terminal slots. This creates a challenge for the shippers, and might leave some products, e.g., monthly transmission products, unused. Hence inefficiencies could result from this as well.

3 Alternative capacity allocation models for Balticconnector

EU regulation on capacity allocation (CAM NC, 2017/459/EU) requires the use of capacity auctions and/or implicit capacity allocation in interconnection points. In addition to these regulatorily compliant choices, we introduce a variety of alternative methods below.

The first alternative is based on the current capacity allocation method with the only deviation being the introduction of a tariff for the capacity (see Figure 5 below). In the second, capacity is allocated to shippers on the basis of the timestamps of their capacity booking requests, hence the concept 'first-come-first-served'. The third alternative utilises pro rata for capacity allocation. That is, if the total volume of capacity requests by shippers exceeds the available capacity, capacity is allocated to all shippers in proportion to their individual capacity requests. Finally, we introduce capacity auctions as a solution. In cases with formal a priori capacity booking of standard (or non-standard) capacity products, implicit capacity allocation may always be used in parallel at least for the short-term products.



Figure 5. Alternative capacity allocation models

The alternative models are evaluated in more detail below.

3.1 Current model with introduction of tariff

3.1.1 Alternative 1a. Fixed tariff on all nominations

The current capacity allocation method lacks formal longer capacity products, moreover the transport rights are allocated based on accepted nominations for free. It might be possible, however, to introduce a tariff on the shippers' nominations, i.e., to place a cost on each nomination request (in unit EUR/MWh). This would force the shippers to better align their nomination requests with their actual need for capacity, leading to a reduced incentive for capacity hoarding.

Evaluation factor	Benefit	Drawback
<i>Shipper perspective</i>		
Security on transport rights in advance	Reduces congestion because shippers use discretion to reduce costs	Not until day-ahead. While congestion may be reduced, the method still does not prevent congestion. LNG importers remain unable to match regasification schedule with transport schedule in Balticconnector beforehand. It is not clear where the tariff level should be set in order to achieve the desired impact on nominations.
Avoidance of hoarding	Reduces potential for capacity hoarding since each nomination has a real cost to it	
Impact on transport costs		Those who wish to transport gas across have to pay. For example, using Inčukalns gas storage becomes more expensive for Finnish end-users
Easiness to adopt the change (time, cost)	A minor transition from non-payable to payable	
Easiness to use the new model (personnel resources, systems)	A minor change to current practices	
Impact on market behaviour		Markets in Finland and Estonia-Latvia become more likely to have a price differential subject to the level of the tariff in Balticconnector
<i>TSO perspective</i>		
Easiness to adopt the change (time, cost)	No need for new systems, minor change to market rules	Changes needed for invoicing and the existing ITC agreement between Finland, Estonia, and Latvia
Impact on system balancing needs	Reduces congestion since shippers use discretion in their nominations. No contractual congestion since capacity is reserved according to accepted nominations	There still is a need for some balancing services since, even though not as probable as before, congestion induces pro rata on nominations
Impact on GET Baltic	Current practice of implicit capacity allocation can be continued. The only change is a fixed tariff for the capacity.	GET Baltic needs to pay for the implicit capacity to the TSOs and shippers need to pay for GET Baltic, hence some changes needed for invoicing
CAM NC compatibility		No and would need a new permission from authorities to be acceptable

To conclude, this model is still unable to secure capacity rights for shippers in advance and therefore maintains the shippers' exposure to balancing costs. The tariff for nominations would need to be quite high to reduce the possibility to nominate excessively. The drawback of this is that if the nomination fee is remarkably high, it will make the cost prohibitive and drive down gas transport volumes (i.e., cross-border trading) over Balticconnector because of the extra fee. Furthermore, the solution is not in line with EU legislation.

3.1.2 **Alternative 1b. Fixed tariff on nominations only if they exceed the available capacity**

Alternative 1b is otherwise similar to Alternative 1b except that a tariff would be applied on nominations only if there is congestion during the respective allocation round. Hence shippers would not be charged for capacity unless there is congestion.

Evaluation factor	Benefit	Drawback
<i>Shipper perspective</i>		
Security on transport rights in advance	Reduces congestion a bit since nominations under congestion become payable and thereby shippers use discretion to reduce costs.	Not until day-ahead. While congestion may be reduced, the method still does not prevent congestion. LNG importers remain unable to match regasification schedule with transport schedule in Balticconnector. It is not clear where the tariff level should be set in order to achieve the desired impact on nominations.
Avoidance of hoarding	Reduces potential for capacity hoarding a bit since nominations may have a real cost associated with them	
Impact on transport costs	Nominations payable only if there is congestion so cost impacts not that large	Those who wish to transport gas across have to pay whenever there is congestion. Periods of congestion may be hard to forecast, which adds uncertainty over costs
Easiness to adopt the change (time, cost)	A minor change to current rules and systems	
Easiness to use the new model (personnel resources, systems)	A minor change to current practices	
Impact on market behaviour		Markets in Finland and Estonia-Latvia become more likely to have a larger price differential during congestion than today
<i>TSO perspective</i>		
Easiness to adopt the change (time, cost)	No need for new systems	Changes needed for invoicing and the existing ITC agreement between Finland, Estonia, and Latvia
Impact on system balancing needs	Reduces congestion a bit since shippers use more discretion in their nominations. As before, there is no contractual congestion since capacity is reserved according to accepted nominations	There still is no full certainty for individual shippers on their transport volumes so there still is a need for some balancing services
Impact on GET Baltic	Current practice of implicit capacity allocation can be continued unchanged. Capacity would not have a tariff since there is a fixed quota per day	GET Baltic needs to pay for the implicit capacity to the TSOs and shippers need to pay for GET Baltic, hence some changes needed for invoicing
CAM NC compatibility		No and would need a new permission from authorities to be acceptable

Like Alternative 1a, Alternative 1b fails to secure capacity rights for shippers in advance and therefore maintains the shippers' exposure to balancing costs. The tariff for nominations under congestion would need to be quite high to reduce the possibility to nominate excessively. Again, if the nomination fee is extremely high, this will make the cost prohibitive and drive down gas transport volumes and cross-border trading over Balticconnector because of the extra fee. In addition, the uncertainty over whether a fee is charged or not on a particular nomination round is likely to add a risk premium to cost of gas even if there was no congestion. Finally, similarly to Alternative 1.a, the solution is not in line with EU legislation.

3.1.3 **Alternative 1c. Forbidding the use of several companies to nominate capacity for one shipper or affiliated company**

In Alternative 1c (Alternative 1c and be combined with Alternatives 1a and 1b) it would be against Balticconnector nomination rules to create and use several companies associated with the same company (corporate parent or affiliate) to nominate capacities, with the purpose of securing more capacity than one company could secure alone, and to stop counter-nominations sent just to avoid the underutilisation fee. Several companies nominating capacity for the same shipper can lead to over-nomination and the need to reduce positions and, at the same time, leave other shippers with too little capacity and an inability to fulfil their contractual commitments to customers. The rule to forbid using several companies to nominate for the same shipper would aim to limit the use of this type of activity to gain an unfair advantage and to ensure fairer distribution of capacity to shippers in situations with congestion over Balticconnector.

The benefit of making this type of activity against the rules would be to make it more difficult to hoard capacity for one company. This type of a rule would, however, not resolve the challenges with shippers needing to book capacity in advance across the Balticconnector to secure gas transmission when needed. The purpose would be to avoid unfair nominations that undermine the functioning of Balticconnector.

How the above change is enforced legally or supervised by authorities, remains unclear at this point, and needs further review. There may be legitimate reasons to have several companies that nominate the capacity that are not associated with gaining an unfair advantage, such as when shippers are managing portfolios of several companies.

Alternative 1c can be combined with alternatives 1a and 1b and would therefore also have the same benefits and drawbacks as those alternatives.

3.2 **Alternative 2. First-come-first-served**

First-come-first-served (FCFS) is based on standard yearly, quarterly, monthly, day-ahead, and within-day capacity products for defined transport periods. The sale of each product has a pre-defined sales quantity and sales period. Capacity booking requests by shippers are processed and accepted in the order of their receipt. The sale of each product is continued for as long as there is capacity left or until the end of the sales period. Any capacity unsold after a sales period is then added to the volume of shorter-term products in the same period. For

example, an unsold monthly product is split and sold as day-ahead products in the respective day-ahead sales periods.

Evaluation factor	Benefit	Drawback
<i>Shipper perspective</i>		
Security on transport rights in advance	Secured transport rights to parties who book their capacity products early enough	Contractual congestion when shippers book capacity to secure transfer rights prior to certainty over the actual need
Avoidance of hoarding	Reduces possibility for hoarding if there is a tariff since over-booking has a real cost	Some capacity may still be left unused and not sold forward in the secondary market even if there is a tariff
Impact on transport costs	Tariffs fixed by type of capacity product	Those who wish to transport gas across have to pay. Unused capacity needs to be sold forward to minimise costs
Easiness to adopt the change (time, cost)	Similar purchase process as for other capacity products today	
Easiness to use the new model (personnel resources, systems)		Purchase plan needs to be ready by the time capacity reservation begins.
Impact on market behaviour		Contractual congestion leads to a need to purchase capacity from the secondary market at market price. A need to sell excess capacity to minimise losses.
<i>TSO perspective</i>		
Easiness to adopt the change (time, cost)	Similar to that of current capacity sales practices	A need for a joint platform for integrated capacity products sales
Impact on system balancing needs	Reduces the needs as shippers may secure their transfer rights in advance	Potential issues with contractual congestion vs. actual need for transport rights. Therefore, there is a need to promote capacity secondary trading for any unused capacity
Impact on GET Baltic	Current practice of implicit capacity allocation can be continued. Day-ahead and within-day capacities would apply a standard tariff	GET Baltic needs to pay for the implicit capacity to the TSOs and shippers need to pay for GET Baltic, hence some changes needed for invoicing
CAM NC compatibility		Would need a new permission from authorities to be acceptable

FCFS enables security over transport rights in advance. While shippers can secure their rights, they may wish to procure capacity well ahead of knowing their actual needs for the transport rights. This may lead to a situation called “contractual congestion”. The level of the tariff will determine whether there could be overbooking of capacity for speculative purposes or for resale. Secondary trading would thereby be necessary to adjust the imbalance between the booked transport rights and the actual needs for them closer to the delivery day. It cannot be guaranteed if optimal allocation and capacity utilisation are possible at the lowest cost with FCFS. While the method is transparent, it is not in line with EU legislation.

3.3 Pro rata

Pro rata is similarly as FCFS based on standard yearly, quarterly, monthly, day-ahead, and within-day capacity products for defined transport periods. A pre-defined booking period is applied for each product, but unlike in FCFS, capacity is allocated between all shippers who have requested for capacity at the end of the booking period. If the total volume of shippers’ booking requests exceeds the total available capacity, the volume of capacity allocated to each shipper is reduced in relation to his request vs. the total volume of the requests. If the total volume of shippers’ booking requests remains below the total available capacity, each shipper is allocated with capacity as requested. Any unsold capacity is then available for the shorter-term products similar to that of FCFS.

Evaluation factor	Benefit	Drawback
<i>Shipper perspective</i>		
Security on transport rights in advance	Secured transport rights to parties who book their capacity products	Contractual congestion when shippers book capacity to secure transfer rights prior to certainty over their actual need. Shipper may receive less capacity than he ordered, if the volume of asks exceeds the available capacity
Avoidance of hoarding	Reduces possibility for hoarding if there is a tariff since over-booking has a real cost	Some capacity may still be left unused and not sold forward in the secondary market even if there is a tariff
Impact on transport costs	Tariffs fixed by type of capacity product	Those who wish to transport gas across, have to pay. Unused capacity needs to be sold forward to minimise costs
Easiness to adopt the change (time, cost)	Fairly similar purchase process as for other capacity products today	
Easiness to use the new model (personnel resources, systems)	Fairly similar to that of current capacity products	Capacity allocation is confirmed only after fixed deadlines and it may be less than you asked for
Impact on market behaviour		Contractual congestion leads to a need to purchase capacity from the secondary market at market price. A need to sell excess capacity to minimise losses
<i>TSO perspective</i>		
Easiness to adopt the change (time, cost)		Needs the establishment of fixed booking deadlines after which the allocation results become announced
Impact on system balancing needs	Reduces the needs as shippers may secure their transfer rights in advance	Potential issues with contractual congestion vs. actual need for transport rights. Therefore, there is a need to promote capacity secondary trading for any unused capacity
Impact on GET Baltic	Current practice of implicit capacity allocation can be continued. Day-ahead and within-day capacities would apply a standard tariff	GET Baltic needs to pay for the implicit capacity to the TSOs and shippers need to pay for GET Baltic, hence some changes needed for invoicing
CAM NC compatibility		Would need a new permission from authorities to be acceptable

Pro rata effectively has the same pros and cons as FCFS apart from the principle that all shippers who have requested for capacity are also being allocated with capacity. In the case of

requests exceeding the available capacity, all shippers receive less capacity than what they requested for and thereby have to revert to the availability of capacity from the secondary market or relying on the availability of short-term products. This method may therefore lead to over-dimensioning of the capacity requests especially if it is known that a certain period is likely to be congested.

3.4 Capacity auctions

Capacity auctions apply similar standard products as FCFS and pro rata. Each product is allocated through a defined auction method at a defined timetable according to EU regulation on capacity allocation and management (NC CAM).

With auctions, capacity is allocated to shippers in the order of their willingness to pay. Similar to FCFS and pro rata, contractual congestion is possible as shippers book capacity to secure transfer rights prior to certainty over their actual need. Shippers face additional costs for from auctions depending on the case. These raise the cost of gas transport over the border and may reduce cross-border gas trading. Auctions will also impact the costs of those shippers who have a pressing need to get their gas transported over or, alternatively, shippers who have been able to import gas at low cost have more margin to pay for transport rights than other shippers. Capacity auctions are compliant with EU legislation when implemented as defined in the CAM NC.

Evaluation factor	Benefit	Drawback
<i>Shipper perspective</i>		
Security on transport rights in advance	Secured transport rights to parties who are willing to pay	Contractual congestion when shippers book capacity to secure transfer rights prior to certainty over the actual need.
Avoidance of hoarding	Reduces possibility for hoarding if there is an auction price since over-booking has a real cost	Some capacity may still be left unused and not sold forward in the secondary market even if there is an auction price
Impact on transport costs	Pricing according to supply-demand balance	Those who wish to transport gas across have to pay. Unused capacity needs to be sold forward to minimise costs
Easiness to adopt the change (time, cost)		Requires new practices to be adopted for auctions
Easiness to use the new model (personnel resources, systems)		Requires new practices to be adopted for auctions
Impact on market behaviour		Contractual congestion leads to a need to purchase capacity from the secondary market at market price. A need to sell excess capacity to minimise losses
<i>TSO perspective</i>		
Easiness to adopt the change (time, cost)		Requires an auction platform as a service and integrations between the platform and existing systems
Impact on system balancing needs	Reduces the needs as shippers may secure their transfer rights in advance	Potential issues with contractual congestion vs. actual need for transport rights. Therefore, there is a need to promote capacity secondary trading for any unused capacity
Impact on GET Baltic	Current practice of implicit capacity allocation can be continued. Day-ahead and within-day capacities would have to apply a tariff, but it is a question whether the auction prices are directly applicable here	GET Baltic needs to pay for the implicit capacity to the TSOs and shippers need to pay for GET Baltic, hence some changes needed for invoicing
CAM NC compatibility		Yes

3.5 Cross-comparison

The main similarities and differences of the alternative capacity allocation methods are summarised in the table below.

Table 1. Summarising comparison between alternative capacity allocation methods

Evaluation category	Current method	1a. Fixed tariff on all nominations	1b. Fixed tariff on nominations only under congestion	1c. Forbidding using several companies to nominate	2. First-come-first-served	3. Pro rata	4. Capacity auctions
<i>Shipper perspective</i>							
Security on transport rights in advance	No	No	No	No	Yes	Yes	Yes
Impact on transport costs	No impact	Small or great depending on tariff level	Only during congestion, small or great depending on tariff level	No	Depends on transport profile (use of long vs. short products)	Depends on transport profile (use of long vs. short products)	Depends on auction prices
Easiness to adopt the change (time, cost)	No need	Very easy	Very easy	Legality may limit possibility	Easy	Easy	Requires the use of an auction platform
<i>TSO perspective</i>							
Easiness to adopt the change (time, cost)	No need	Very easy	Very easy	Legal issues may limit possibility	Easy	Easy	Requires the sourcing of an auction platform as a service and integrations to it with a timeline of 6-8 months
Implications on Inter-TSO Compensation mechanism	No need for change						
Impact on system balancing needs	As today	A bit reduced compared to today	A bit reduced compared to today	A bit reduced compared to today	Reduced compared to today	Reduced compared to today	Reduced compared to today
Impact on GET Baltic	No change	A tariff on capacity always	No change	No change	A tariff on capacity always	A tariff on capacity always	A tariff on capacity always, the level of tariff might be linked with auction prices
CAM NC compatibility	Will need NRA approval	Will need NRA approval	Will need NRA approval	Not relevant	Will need NRA approval	Will need NRA approval	Yes if done according to CAM NC

Not according to criteria
 Partially according to criteria
 According to criteria

FCFS and pro rata are considered unapplicable by the transmission system operators since they fail to allocate capacity on the basis of willingness to pay. Therefore, they do not offer an effective solution to the capacity hoarding issue that is set as one of the key objectives to be achieved with the potential change of a capacity allocation mechanism.

4 Questions for market consultation

In this market consultation, we kindly ask your opinion on the following questions:

1. What is your opinion on the functioning of the current capacity allocation method in Balticconnector: what works well and what does not? Has or will the change to an LNG based market impacted the capacity allocation needs for Balticconnector and how have or will these changes manifest themselves? Please, highlight if you see a need for a change, and why this is.
2. Should a different capacity allocation method be used for northbound direction than for southbound direction in Balticconnector? If so, why?
3. Is there a need to be able to book capacity in advance, for example, on a yearly, quarterly, monthly, or weekly basis in advance? Which potential capacity products would be the most critical? Please specify what the main driver is for the need to be able to book capacity in advance.
4. If the number of companies, that would be able to nominate capacity on the Balticconnector, were limited to one per an affiliated business corporation, what would be the benefits or drawbacks of this in your opinion? What kind of implications would it have on the gas market functioning? Please highlight if this would be a workable solution in your opinion.
5. If a tariff for nominations were introduced in Balticconnector according to method 1a, what would be the strengths and weaknesses of this method in your opinion? What kind of implications would it have on the gas market functioning? Please highlight if this would be the best method to continue with in your opinion.
6. If a tariff for nominations were introduced in Balticconnector for solely when there is congestion in Balticconnector according to method 1b, what would be the strengths and weaknesses of this method in your opinion? What kind of implications would it have on the gas market functioning? Please highlight if this would be the best method to continue with in your opinion.
7. If we were to introduce capacity auctions in Balticconnector, what would be the strengths and weaknesses of this method in your opinion? What kind of implications would it have on the gas market functioning? Please highlight if this would be the best method to continue with in your opinion.
8. If there is a change of capacity allocation method, when should it take place? Please specify the preferred schedule for each alternative method separately and explain your opinion.