Gasgrid Finland Oy

Document concerning the prices of Gasgrid Finland and the information in accordance with the article 30 of Tariff Network Code

Based on Article 30 of Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonized transmission tariff structures for gas (TAR NC)

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Abbreviations

ACER	Agency for the Cooperation of Energy Regulators
BC	Balticconnector
CEF	Connecting Europe Facility
CWD	Capacity Weighted Distance
LNG	Liquified Natural Gas
LTIP	Long-Term Investment Plan
NRA	National Regulatory Authority
RPM	Reference Price Methodology
TAR NC	Tariff Network Code
TSO	Transmission System Operator
UMM	Urgent Market Message

List of definitions

Available capacity means the part of the technical capacity that is not allocated and is still available to the system at that moment.

Firm capacity means gas transmission capacity contractually guaranteed as uninterruptible by the transmission system operator.

Implicit capacity allocation method means a capacity allocation method where, possibly by means of an auction, both transmission capacity and a corresponding quantity of gas are allocated at the same time.

Interruptible capacity means gas transmission capacity that may be interrupted by the transmission system operator in accordance with the conditions stipulated in the transport contract.

Physical congestion means a situation where the level of demand for actual deliveries exceeds the technical capacity at some point in time.

Reference price means the price for a capacity product for firm capacity with a duration of one year, which is applicable at entry and exit points and which is used to set capacity-based transmission tariffs.

Reference price methodology means the methodology applied to the part of the transmission services revenue to be recovered from capacity-based transmission tariffs with the aim of deriving reference prices.

Technical capacity means the maximum firm capacity that the transmission system operator can offer to the network users, taking account of system integrity and the operational requirements of the transmission network.

Transmission capacity means the maximum capacity which can technically be transported with design pressure.

Transmission services mean regulated services provided by the transmission system operator for transmission within the entry-exit system.

1 Introduction

Gasgrid Finland Oy, the Finnish gas transmission system operator (TSO) with system responsibility, publishes the new gas transmission tariffs which will be applied in Finland 1.1.2027 at 07:00 EET – 1.1.2028 at 07:00 EET. The Article 30 of Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonized transmission tariff structures for gas (Tariff Network Code, TAR NC) sets the obligation for Gasgrid Finland to publish the service price list at least 30 days before the beginning of the tariff period.

According to the Natural Gas Market Act, the transmission system operator must set transmission tariffs for each entry and exit point of the transmission network. However, no transmission tariffs are set for the entry-exit point to which a connecting pipe is connected to the natural gas network of another country belonging to the European Economic Area, if not setting the entry or exit tariff is based on an international obligation or agreement binding for Finland. Having the ITC (Inter TSO Compensation) agreement signed by the transmission system operators of Finland, Estonia and Latvia, there is no tariff at all at Balticconnector entry and exit points.

The goal of Gasgrid's transmission pricing is predictability and stability which has been very challenging during past few years due to unforeseen and significant changes affecting the gas market. Gasgrid will keep the reference prices for 2027 (annual capacity product price) for both entry and exit capacity the same as for 2026. Gasgrid has adjusted its transmission system to meet the needs of the gas market by removing compressor capacity from the regulated asset base (RAB) that is no longer considered to have actual use due to the changed flow dynamics. The regulated asset serves as the basis for determining a reasonable return, which sets the framework for transmission pricing. As a result of the measures implemented, the RAB will decrease, and thus the measures will have a lowering effect on transmission pricing. With our measures, we want to provide value to our customers by operating cost-effectively in terms of transmission services without compromising on reliable and safe transmission. Although gas consumption has decreased since early 2020s, this does not mean that the maintenance of the existing infrastructure can be safely reduced. The system's upkeep requires at least the current level of maintenance investment in the future as well.

The energy system is evolving, and the power system is increasingly relying on wind and solar power generation. As the share of weather-dependent renewable electricity generation increases, the energy system requires increasing amounts of reliable and flexible capacity. The value of gas infrastructure therefore lies not only in the volumes of energy transported, but also in its ability to provide capacity and energy when the system needs it most, thereby supporting flexibility, security of supply and system resilience.

The operational capacity of Gasgrid's transmission network is maintained at an excellent level by the proactive and planned maintenance activities and a maintenance investment program. Our goal is extreme safety and undisturbed gas transmission for our customers.

In this document, Gasgrid Finland described the relevant information from transmission tariff point of view. Also, this document contains information on non-transmission charges, such as datahub charge.

At the time of publishing this document, the Finnish Energy Authority has not yet finished its consultation regarding the tariff multipliers, seasonal factors and discounts for 2027. In this document tariff multipliers, seasonal factors and discounts are assumed to remain the same for 2027 as in 2026.

2 Information on parameters used in the applied reference price methodology that are related to the technical characteristics of the transmission system

In this chapter, the information according to TAR NC article 30 (a) is published.

2.1 Technical capacity at entry and exit points and associated assumptions

Regulation (EC) No 715/2009 defines Technical Capacity as follows: Technical Capacity means the maximum firm capacity that the transmission system operator can offer to the network users, taking account of system integrity and the operational requirements of the transmission network.

At Balticconnector entry and exit point, capacity is allocated implicitly based on confirmed nominations according to the nomination submission schedule and by the exchange operator increasing liquidity in the spot market. Due to the nomination based implicit capacity allocation, only firm capacity is offered for shippers. After nomination submission window is closed, shippers may submit renominations. Day-ahead capacity not sold during nomination submission period shall be offered as a within-day capacity during renomination submission period. Capacity not sold during nomination submission period is called Available Capacity.

Gasgrid Finland can receive biogas from all 6 biogas entry points directly connected to the Finnish gas system and liquefied natural gas from Hamina LNG entry point that meet the quality requirements into the Finnish gas system without restrictions. Therefore, the technical capacity is not set separately either for the biogas virtual entry point for Hamina LNG entry point. Gasgrid has published the capacity value of 140 GWh/day at Inkoo LNG entry point. Gasgrid does not set restrictions on the offered capacity products, because the terminal's schedule sets the frames for network regasification in such a way that the aforementioned capacity level is not exceeded.



Figure 1 Technical capacities at Inkoo, Hamina and BC entry and exit points.

The shippers can book capacity at the Finnish exit zone without restrictions, which enables flexible capacity booking windows. Thus, Gasgrid Finland does not separately set the technical capacity for the exit zone.

Gasgrid accepts received capacity booking requests if the shipper fulfils its collateral requirements, request is duly filled and received on time.

If there are maintenance works performed in the Finnish transmission system impacting on capacities, Gasgrid publishes UMM and updates the technical capacities published at ENTSOG's transparency platform accordingly. Also, if there are maintenance works in Baltic transmission system impacting on Balticconnector capacities, Gasgrid Finland updates BC capacities at the Transparency Platform. Gasgrid Finland offers as much firm capacity as possible, taking into account the security of supply. Gasgrid Finland reserves the right to offer interruptible capacity if the firm capacity is sold out.

Balticconnector is the only interconnection point in the Finnish gas system. Balticconnector is a bidirectional pipeline which maximum transport capacity in a design pressure is 81 400 MWh/day. Balticconnector Technical Capacity offered for market participants is agreed with the neighboring TSOs. The technical capacity from Finland to Estonia is 78 GWh/d under normal transmission conditions, where there are no capacity-limiting maintenance or repair works in the regional transmission infrastructure.

The Transmission System Operators of the Finnish-Baltic region (hereinafter referred to as the TSOs) have actively undertaken infrastructure projects with the aim of increasing capacities in the region and enhancing the regional gas system to better meet the transportation needs of market participants. The implemented infrastructure projects have enabled the technical capacity to be increased to 70.5 GWh/day from Estonia to Finland under normal transmission conditions, where there are no capacity-limiting maintenance or repair works in the regional transmission infrastructure.

2.2 Forecasted contracted capacity at entry and exit points and associated assumptions

In Finland the competitiveness of gas compared to alternative fuels or raw materials has a major impact on annual gas consumption. Also, consumption is affected by the price of electricity, which is further affected by e.g. wind conditions and rainfall in the Nordic region. Weather conditions also have an impact on gas consumption.

Gas consumption is estimated to be around 11 TWh in 2027. However, the price level of alternative fuels and feedstocks, ability to switch from methane to alternatives as well as the electricity price levels and weather conditions play a significant role in the actual consumption which generates significant uncertainties to the demand estimation.

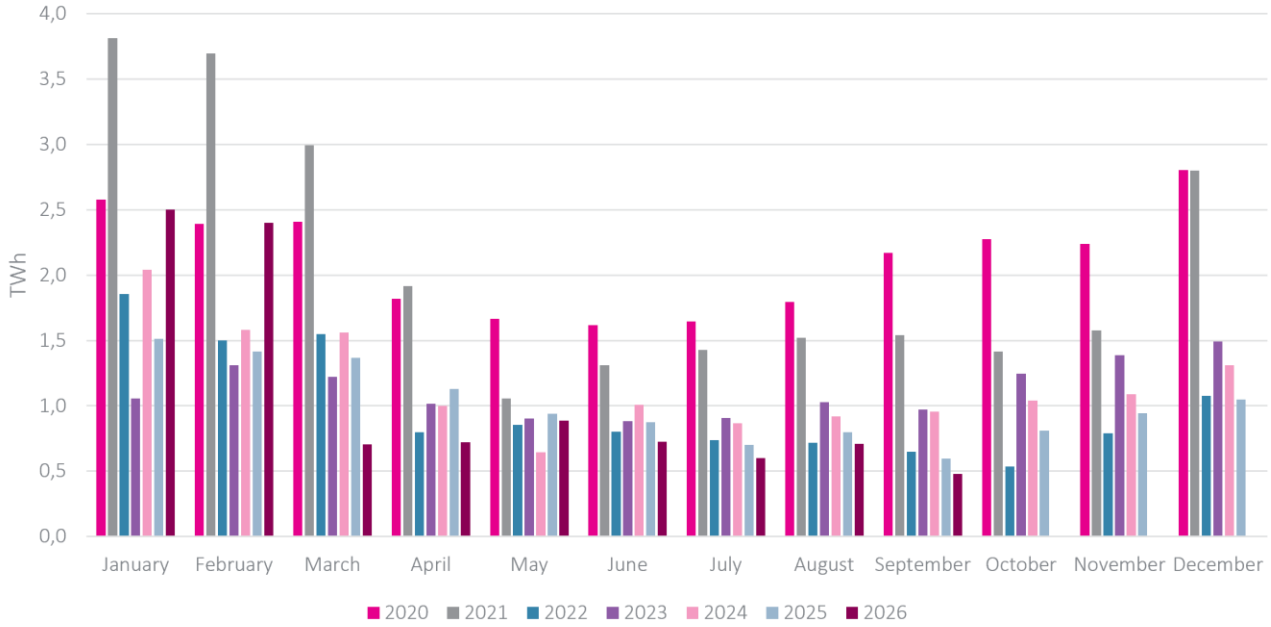


Figure 2 Gas consumption in Finland 2020-2026.

Typically, the peak conditions in gas demand are reached on the coldest days in winter. The peak consumption day of 2026 (until 27.10.2026) was on February 2 when the consumption reached 123 GWh/day.

2.3 The structural representation of the transmission network with an appropriate level detail

At the time of publication of this document, Finnish gas transmission system consists of 9 entry points. Balticconnector interconnection point between Finland and Estonia is the only currently utilized cross-border entry point in the Finnish gas transmission system as there have been no deliveries from Imatra entry point between Russia and Finland since May 2022. In addition to Balticconnector, there are two Liquified Natural Gas (LNG) terminals at Inkoo and Hamina and 6 biogas plants of which 4 are connected to transmission system and 2 to distribution system.

Figure 3. below presents the Finnish transmission system.

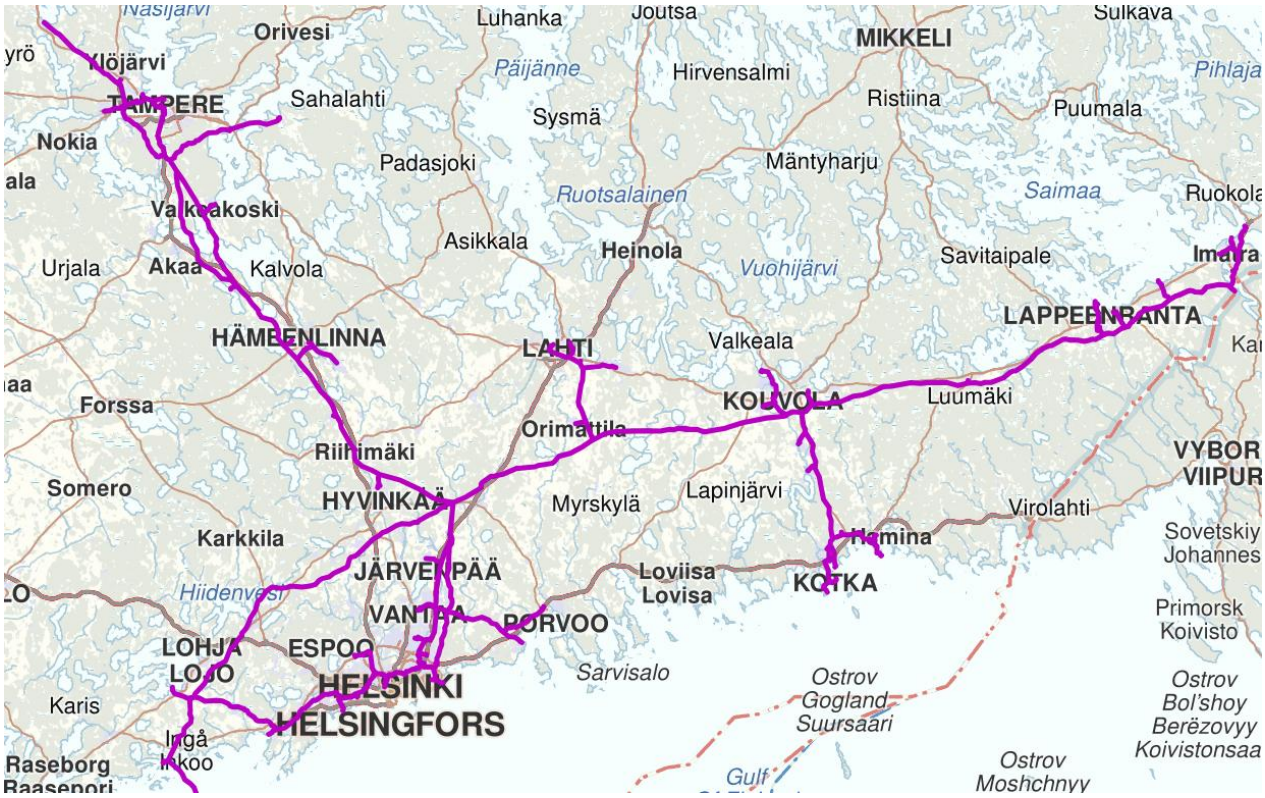


Figure 3 Finnish gas transmission system

1) Imatra compressor station
    - 2 gas powered compressor units (third 10 MW unit decommissioned in the future)
        - the shaft power of 2 compressor units is 5 MW each
        - transport capability: 2 compressor units 250 000 m^3/h each
2) Kouvola compressor station
    - 2 gas powered compressor units (third 10 MW unit decommissioned 2025)
        - the shaft power of 2 compressor units is 5 MW each
        - transport capability: 2 compressor units 350 000 m^3/h each
3) Mäntsälä compressor station
    - 2 gas powered compressor units
        - the shaft power of 2 compressor units 6,4 MW each
        - transport capability: 2 compressor units 300 000 m^3/h each
4) Inkoo compressor station
    - Inkoo compressor unit is driven by an electric motor
        - the shaft power is 6,4 MW
        - transport capability 300 000 m^3/h

The length of Finnish gas transmission pipelines is approximately 1256 km. Most of the pipelines are onshore pipelines, but approximately 39 km is offshore pipeline in Balticconnector. The lengths of the pipelines with different diameters are presented in the table 1 below:

Table 1. Pipeline lengths in the Finnish gas transmission system.

DN	Total length [km]
≤200	219
250 - 400	359
500	388
700	167
900 - 1000	123
Total	**1256**

Most of the pipes are made of steel, most of which are coated with polyethylene plastic. In addition to high-pressure pipelines, the transmission network also features 60 km of low-pressure pipelines. The protection against corrosion provided by the gas pipeline coating is supplemented by a cathodic protection system. The oldest sections of the pipelines were taken into use in 1974. 80 % of the pipelines can be inspected internally.

The transmission pipeline network also includes offshore steel pipeline from Paldiski, Estonia, to Inkoo, Finland, which is jointly owned with the Estonian transmission system operator for electricity and gas, Elering AS. The interconnector pipeline can be operated in both directions.

There are valve stations installed at intervals of 8-32 km along the transmission pipeline network. Their safety cut-off devices can be used to cut off gas transmission and distribution and release gas from a pipeline section using a measure called blowdown. The total number of valve stations is 166, and 40 of these are remotely controlled.

Gasgrid Finland has its own data transporting system with link stations via which the network's operating, monitoring and alert data is submitted to the Kouvola Central Control Room that is staffed 24/7.

Pressure reduction stations form part of the transmission pipeline system. The stations are located at the customer interface close to customers' distribution pipelines or processes. The pressure reduction stations are used to regulate gas pressure to a level suitable for the customer. The volume measurement of gas transmitted takes place at pressure reduction stations.

Gas is odourised before delivery to customers. In special cases, gas can also be delivered unodourised, but this requires a permit from the Finnish Safety and Chemicals Agency (TUKES).

In addition to natural gas, renewable biogas from five Finnish biogas plants is injected into the gas transmission network.

Future development

Gasgrid Finland has a long-term investment plan (LTIP) for the development of Finland's gas network. The plan guides the maintenance of the transmission network and future investments. By updating and following

the investment plan, Gasgrid Finland is able to manage its network costs and ensure the proper lifecycle management of the transmission network assets.

The long-term investment plan ensures the continuous maintenance of aging infrastructure. Necessary maintenance investments are carefully planned, updated in the long-term investment plan, and scheduled for the coming years. Finland's gas transmission network has been in operation since 1974. The design of the transmission network focuses on maintaining the existing infrastructure. Safe, reliable, and cost-effective gas transmission is a key objective guiding the development of the network.

Gasgrid Finland is decommissioning two compressor stations, one 10 MW unit at Imatra in the future and other 10 MW unit at Kouvola, which was decommissioned in 2025.

Gasgrid has experienced a significant increase in connection requests during the past year, reflecting the evolving role of the gas system. Interest on the entry side is increasingly driven by renewable gas production, while on the exit side, balancing and backup power projects have shown particularly strong interest in connecting to the gas network. This development highlights the growing importance of gas infrastructure in supporting both decarbonisation and energy system flexibility. Significant renewable gas production potential has been identified both along Gasgrid’s existing transmission network and in Western Finland. Several TWh of biomethane and e-methane production potential exists within the current network area, while the planned Western Finland network extension could enable approximately 3–4 TWh of additional renewable gas injection capacity.

3 Financial parameters

In this chapter, revenues, asset values and other relevant financial values are explained.

3.1 Allowed revenue of Gasgrid Finland in 2027

In Finland the regulatory period is four years. The ongoing period takes place 2024-2027. A non-price cap regime is applied meaning that the cap is set for the allowed revenue. The allowed revenue means the profit TSO is entitled to collect by its regulated business. The tariff period is a calendar year. In connection with the new regulatory model, significant changes also occurred in the regulatory model.

- Network assets invested before 2024 are calculated according to the updated unit price list, and the value of network assets increases. From 2024 onwards, a specific unit price for each investment year will be determined.
- In the calculation of the reasonable rate of return, the applicable parameter value for the risk-free interest rate is the average of the daily values of the German government's ten-year bond yield from April to September of the previous year. The frequency of updating the parameters for the reasonable rate of return is also higher.
- The additional risk premium for natural gas transmission network operations decreased from 1.7 percent to 0.9 percent
- In adjusted straight-line depreciation, a benefit cap: 15% of the benefits from the network operator's cost efficiency in depreciation are directly allocated to customers, and 85% remains with the network operator.

3.1.1 Allowed revenue for the transmission services

The reasonable rate of return (%) is calculated by Finnish Energy Authority (NRA) based on the weighted average cost of capital (WACC model). The allowed revenue of Gasgrid Finland is calculated as follows:

$$R_{k,pre-tax} = WACC_{pre-tax} \times (E + D)$$

, where

$R_{k,pre-tax}$ = reasonable return before corporate taxes, €

$WACC_{pre-tax}$ = reasonable rate of return, %

E = adjusted equity employed in network operations, €

D = adjusted interest-bearing debt employed in network operations, €

$E + D$ = adjusted capital employed in network operations, €

Finnish Energy Authority will determine the reasonable rate of return ($WACC_{pre-tax}$) on yearly basis. Regulated Asset Base is another key component as determinig the Allowed Revenue. The parameters for determining the Allowed revenue for 2027 are presented in the table 2:

Table 2 The Allowed Revenue of Gasgrid Finland enabled by the regulatory method and the key parameters used for determining the Allowed revenue.

	2020	2021	2022	2023	2024	2025	2026 (estimate)	2027 (estimate)
WACC-%, pre-tax	6,48 %	6,10 %	5,71 %	6,84 %	7,12 %	6,95 %	7,19 %	7,27 %
Regulated Asset Base [M€]	746,3	742,0	729,9	716,7	728,4	711,6	699,6	673,2
Allowed revenue [M€]	48,4	45,3	41,9	49,0	51,9	49,5	50,3	48,9

3.1.2 Allowed revenue for the centralized data exchange service for retail market

From the beginning of July 2020, the regulation method for determining the revenue from the services of centralized data exchange[1] (datahub) was introduced. Thus, Gasgrid differentiates the costs allocated to the datahub operations and covers the cost of the datahub operations through datahub charges. Gasgrid is entitled to profit from datahub service according to the regulation method defined by NRA.

The cost of capital for the datahub system is accepted as such as the basis for the replacement value. The current value in use is determined on the basis of the total acquisition cost of the underlying non-depreciable replacement cost, the technical life of which is determined to be 10 years after the introduction of the datahub system. A remarkable share of datahub's operational costs arise from system licensing and maintenance costs. Other operating expenses include staff and other administrative expenses. The operational costs of the datahub operation are accepted at this stage of the operation as such. The calculation of the adjusted result for operating expenses includes materials and services, personnel expenses and other operating expenses.

In calculating the reasonable rate of return on Datahub operations, the Finnish Energy Authority uses the same capital structure and calculation parameters as for natural gas transmission network operations. However, the calculation of a reasonable rate of return for Datahub operations does not take into account the additional risk premium related to natural gas transmission network operations. The WACC-% of the centralized data exchange service for retail market is 6.82 % in 2027. The datahub charge is calculated in the chapter 4.6. of this document.

3.1.3 Consideration of balancing services in Gasgrid Finland's operations

The Finnish Energy Authority has set Gasgrid Finland in system responsibility, as a result of which Gasgrid is responsible for balancing in the Finnish gas market. Balancing services are a separate set of tasks, and the income and costs are treated separately from the rest of the network business. The TSO shall not make profit or loss from daily imbalance charges, intraday imbalance charges and payments related to balance management activities. The TSO shall transfer to the balance responsible parties the following costs and income through neutrality charges:

a) all costs and revenues resulting from daily and intraday imbalance charges;
b) all costs and revenues resulting from the balance management activities carried out; and
c) all other costs and revenues related to balance management activities performed by the TSO.

Each balance responsible party shall pay to the TSO or the TSO shall reimburse to the balance responsible party for the neutrality charges for each gas month.

[1]https://energiavirasto.fi/documents/11120570/22786719/P%C3%A4%C3%A4t%C3%B6s+Gasgrid+Finland+Oyn+maakaasukaupan+keskitetyn+tiedonvaihdon+palvelun+hinnoittelun+valvontamenetelmist%C3%A4+2020-2027.pdf/711d7145-7951-ff8e-c4ce-52a9b52199ac/P%C3%A4%C3%A4t%C3%B6s+Gasgrid+Finland+Oyn+maakaasukaupan+keskitetyn+tiedonvaihdon+palvelun+hinnoittelun+valvontamenetelmist%C3%A4+2020-2027.pdf?version=1.0&t=1593500097117

The following revenue and expenses of the TSO shall be taken into account as payment components in defining the neutrality charge on a monthly basis:

- paid and credited imbalance charges,
- costs and revenues related to the implemented balance management activities,
- costs related to existing balancing service agreements,
- development, investment and maintenance costs related to balance management activities,
- personnel costs related to balance management activities; and
- financial expenses related to balance management activities.

The development, investment and maintenance costs of the balance management functions include the system operator's IT system purchases and maintenance costs, which include the energy management system and the web portal. Staff costs incurred by persons carrying out balance management activities shall be passed on as part of the cost of balance management activities.

Gasgrid publishes balance management neutrality charges on its website on a monthly basis and performs invoicing of the charges on a quarterly basis.

3.2 Parameters and methodologies according to TAR NC Article 30 (1)(b)(iii)

The Finnish Energy Authority has updated the regulatory method for gas transmission network operations from the beginning of the regulatory period that started at the beginning of 2024.

3.2.1 Types of assets included in the regulated asset base and their aggregated value

The natural gas network is the largest individual part of Gasgrid Finland’s assets consisting of several different components. It is recognized in fixed assets on the balance sheet. According to the Natural Gas Market Act, natural gas network refers to a system intended for the transmission of natural gas, consisting of interconnected - natural gas pipes and pipelines - all associated devices and equipment containing natural gas. Network components and unit prices are presented in Appendix 1.

3.2.2 Cost of capital and its calculation methodology

The Energy Authority defines the cost of capital by the weighted average cost of capital model (WACC model) determined by the acceptable rate of return on network-adjusted capital. The WACC model expresses the average cost of capital employed by a firm, where weight is the relative values of equity and debt.

The detailed description of the calculation method for WACC-% is described here (in Finnish):

Link: Calculation method for WACC-%

Starting from the beginning of July 2020, the regulatory method for centralized data exchange service entered into force for the period of 2020-2027. According to section 32 b of the Natural Gas Market Act, the TSO with system responsibility is responsible for the centralized data exchange and management required by the market processes of natural gas trade used in distribution networks in the natural gas system. As Gasgrid

is the only gas datahub service provider, the allowed revenue for this service is determined by Energy Authority. The regulation method for centralized data exchange service for retail market is described in the following document (in Finnish):

Link: The Regulation method for centralized data exchange service for retail market

3.2.3 Adjusted Assets and Capital Committed to Network Operations Capital Expenditures

This chapter summarizes the main principles of adjusted assets and capital committed to network operations. Detailed content can be found on the Energy Authority's website: LINK (available in Finnish)

- Definition and adjustment of natural gas network assets: Natural gas network assets consist of pipes, tanks, devices, and equipment intended for the transmission or distribution of natural gas. Adjustments are made to ensure that the asset value reflects its actual utility value.

- Use of unit prices: Unit prices are used in the adjustment of network assets to ensure that pricing is reasonable and cost-effective. Unit prices are based on average costs and are updated every four years.

- Replacement value and straight-line depreciation: The frozen replacement value of network assets is determined annually based on the investment year. Straight-line depreciation is calculated by dividing the replacement value by the useful life of the network component.

- Current utility value: The current utility value is calculated based on the frozen replacement value, considering the age and useful life of the components. This value represents the actual utility value of the assets during the monitoring period.

- Principles of network asset adjustment: The adjustment only considers components that are actually in use. The network operator must provide a report with the monitoring data that justifies the necessity and cost-effectiveness of the components.

3.2.4 Depreciation periods and amounts per asset type

In the table 3, the depreciations of network components in 2027 are described. Finnish part of Balticconnector pipeline and Inkoo compressor station have been included.

Table 3. Depreciation periods and lifetimes of the network components in 2027

Network component	**Depreciation (€)**	**Lifetime (years)**
Gas pipes	21 613 529	65
Pressure reduction stations	1 687 538	65
Quality management equipment	469 500	20
Compressor stations and stations' pipelines/equipment	2 099 422	60
Boilers	682 500	20
Total	**26 552 489**	

3.2.5 Operational expenditures

Operational expenditures consist of Gasgrid Finland's fixed and variable costs in order to meet its responsibilities and obligations. Operating expenditures are estimated to be in line with Table 4.

Table 4. Operational expenditures in 2020-2027.

	2020	2021	2022	2023	2024	2025	2026 (forecast)	2027 (preliminary budget)
Estimated operational expenditures [M€]	24,0	26,4	30,4	30,4	27,2	28,9	32,6	35

3.2.6 Incentive mechanisms and efficiency targets

The regulation method includes an incentive mechanism, which consist of the following elements:

- The investment incentive which purpose is to encourage network holders to make cost-efficient investments and to enable replacement investments.
- The quality incentive which purpose is to encourage network holders to develop the quality of the natural gas transmission system.
- The efficiency incentive which purpose is to encourage network holders to be cost efficient.
- The innovation incentive which purpose is to encourage network holders to develop and use innovative technical and functional solutions in network operations.

More detailed criteria for defining and calculating incentives are described in chapter 6 of the Energy Authority's Regulation method document.

Link: Regulation method for regulating the reasonableness of the pricing of natural gas transmission network

3.2.7 Inflation indices

The inflation index is not needed in Finland, because a nominal WACC is used. The nominal interest rate is nominal. If the effect of inflation is removed from the nominal interest rate, a real interest rate is obtained, which defines the return after inflation. Due to the use of nominal WACC, there has been no need to determine the inflation index separately.

4 Relevant information related to derivation of final tariffs

4.1 Reference price methodology

The Reference Price Methodology ('RPM') applied in Finland is a Postage stamp methodology. The postage stamp methodology foresees the same reference price at all entry points and the same reference price at all exit points. The key parameters in calculating the reference prices are the targeted revenue collected by capacity tariffs and the assumptions on capacity bookings. The reference price for each category of points is given by the targeted revenue for entry (respectively exit) divided by the total booked capacity, which is

assumed for entry points (respectively exit points). Thus, the postage stamp methodology does not provide locational signal, because the tariff is the same at each entry and each exit points.

$$Reference\ price, entry = \frac{Revenue\ to\ be\ collected\ from\ entry\ points}{Booked\ entry\ capacity}$$

$$Reference\ price, exit = \frac{Revenue\ to\ be\ collected\ from\ exit\ points}{Booked\ exit\ capacity}$$

4.2 Entry and exit capacity tariff derivation

The Finnish, Estonian and Latvian TSOs established common entry tariff zone from 1st of January 2020. The target of the entry tariff zone is to facilitate the cross-border trading and deepen the market integration. The common entry tariff zone consists of two balancing zones – Finnish balancing zone and Estonian-Latvian balancing zone. In the common entry tariff zone, the reference price for entry capacity and the entry tariff multipliers for short-term capacity products are harmonized. Also, the tariffs from the internal borders (Latvia-Estonia border and Finland-Estonia border) have been removed. This is enabled by Inter-TSO-Compensation ('ITC') agreement between TSOs.

The transmission service revenue collected from the market participants consists of entry tariffs, exit tariffs, capacity subscription charge and commodity tariff charged at the Finnish exit zone.

The reference price for entry capacity is defined according to the principle set by the ITC agreement. In determining the level of entry tariff, the EU entry tariff benchmarking result was used. As determining the entry tariff, the objective was to set the reference price and the multipliers so that entry tariffs would remain the same for several tariff years to ensure predictable pricing.

Instead, the reference price of exit capacity is determined nationally. In its pricing strategy, Gasgrid aims for proactive and stable transmission pricing. The energy crisis and the resulting significant decrease in gas usage have made the goals of the pricing strategy very challenging.

Gasgrid will keep the reference prices for 2027 (annual capacity product price) for both entry and exit capacity the same as this year. Gasgrid has adjusted its transmission system to meet the changing needs of the gas market by removing compressor capacity from the regulated asset base (RAB) that is no longer considered to have actual use due to the changed flow dynamics. The regulated asset base serves as the basis for determining a reasonable return, which sets the framework for transmission pricing. As a result of the measures taken, the RAB will decrease, and thus the measures will have a lowering effect on transmission pricing.

Gasgrid introduced an additional tariff component, Capacity Subscription Charge, from the beginning of year 2026. Capacity Subscription Charge is based on the shippers highest exit zone delivery portfolios sum peak hour within the review year (starting from the beginning of the first gas day of the year and ending in the end of last gas day of the year). Unit price of the Capacity Subscription Charge in 2027 is 2163,00 €/MW.

4.2.1 Annualization of capacity bookings

According to the entry-exit model, standard capacity products according to Commission Regulation (EU) 2017/459 (Capacity Network Code) are offered for shippers. In determining the reference prices, the impact of the multipliers of short-term capacity products shall be considered, because shippers do not only book yearly capacity product. Thus, the capacity product booking pattern is considered in deriving the reference prices.

In order to calculate the annualization factor, the booking patterns of entry and exit capacity are needed. Due to the regional entry tariff zone, the booking pattern for entry capacity is determined on a regional basis according to the principles of ITC mechanism which defines all entry capacity booking revenue is collected to the common basket and the revenue is shared between TSOs based on the share out of total consumption in the region. Thus, for example, the product mix of capacity products booked at Hamina LNG entry point is not in itself relevant in assessing the product mix of entry capacity products, but is examined at regional level, taking into account also the other entry points covered by the ITC agreement. Instead, the booking pattern for exit capacity is defined on a national basis.

The annualization factor is calculated as follows:

$$Annualization\ factor = \sum(share\ of\ each\ capacity\ product * multiplier\ of\ the\ product)$$

The factor weighted by capacity booking shares is calculated according to the above formula. For 2027, the estimated annualization factor for entry capacity determined using estimated entry capacity bookings in FINESTLAT common entry tariff zone, the annualization factor of the entry capacity is app 1.18, and the annualization factor of the exit capacity determined at the national level is approx. 1.39.

4.2.2 Short-term capacity product multipliers in tariff year 2027

At the time of publishing this document, the Energy Authority has not yet finished the consultation regarding the short-term capacity product multipliers, seasonal factors and discounts which will be applied in tariff period 2027. In this document aforementioned are assumed to be the same for 2027 as in 2026.

In accordance with Tariff Network Code “multiplier” means the factor applied to the respective proportion of the reference price in order to calculate the reserve price for a non-yearly standard capacity product. Article 13 sets the following constraints:

a) for quarterly standard capacity products and for monthly standard capacity products, the level of the respective multiplier shall be no less than 1 and no more than 1,5;

b) for daily standard capacity products and for within-day standard capacity products, the level of the respective multiplier shall be no less than 1 and no more than 3. In duly justified cases, the level of the respective multipliers may be less than 1, but higher than 0, or higher than 3.

<u>The level of multipliers for entry capacity</u>

Entry capacity product multipliers will remain the same for 2027 as for 2026 (subject to the approval of Energy Authority as public consultation is open at the time of publication of this document). Gasgrid Finland will apply the following multipliers for standard capacity products in the entry points to the Finnish gas system for the upcoming tariff period:

Table 5 Entry capacity product multipliers for the tariff year 2027.

The price of short-term entry capacity products	
Entry Capacity product	Tariff multiplier
Year (= *reference price*)	1,00
Quarter	1,10
Month	1,25
Day	1,50
Within-day	1,70
Capacity overrun	1,5 x 1,7 = 2,55

If, at the Inkoo LNG entry point and biogas virtual entry point, the allocation (confirmed nominations) of the shipper exceeds the allocated entry capacity for the gas day, the confirmed nomination quantity exceeding the allocated capacity will be subject to capacity overrun charge, which is one and a half (1.5) times the unit price of the within-day entry capacity (multiplier 1.7). The multiplier for the entry capacity overrun charge is calculated as follows: entry capacity reference price x 1.5 x 1.7 = 2.55.

Reasoning:
The Finnish, Estonian and Latvian TSOs have established a common tariff zone starting from 1st of January 2020. The TSOs have concluded an ITC (Inter-TSO Compensation) agreement in which the same level of entry tariff is set for all entry points at the tariff zone and in which there is no entry or exit tariff set at Balticconnector. The multipliers shown in Table 5 are set in ITC agreement for entry points. The multipliers are harmonized with Estonian and Latvian TSOs.

The level of multipliers for exit capacity

Gasgrid Finland sets the multipliers for capacity products at the exit zone. Following multipliers are assumed to be applied at the Finnish exit zone for the upcoming tariff period (Energy Authority consultation is not finished at the time of publishing this document).

Table 6 Exit capacity product multipliers assumed for the tariff year 2027.

The price of short-term exit capacity products	
Exit Capacity product	Tariff multiplier
Year (= *reference price*)	1,00
Quarter	1,10
Month	1,25
Day	2,0
Within-day	2,50
Capacity overrun	1,5 x 2,5 = 3,75

If at the Finnish exit zone, the allocation (metering data of final balance settlement) for the gas day exceeds the allocated exit capacity of the shipper for the gas day, a capacity overrun charge will be charged for the gas quantity exceeding the allocated exit capacity of the shipper. The capacity overrun charge is one and a half (1.5) times the unit price of within-day exit capacity (multiplier 2.5). Thus, the capacity overrun charge = exit capacity reference price x 1.5 x 2.5 = 3.75.

4.2.3 Discounts for interruptible capacity

In accordance with Article 9 in Tariff Network Code:

1. A discount of at least 50 % shall be applied to capacity-based transmission tariffs at entry points from and exit points to storage facilities, unless and to the extent a storage facility which is connected to more than one transmission or distribution network is used to compete with an interconnection point.

2. At entry points from LNG facilities, and at entry points from and exit points to infrastructure developed with the purpose of ending the isolation of Member States in respect of their gas transmission systems, a discount may be applied to the respective capacity-based transmission tariffs for the purposes of increasing security of supply.

Gasgrid Finland Oy has proposed that no such discounts should be applied in Finland.

Article 16 of the Tariff Network Code sets requirements regarding interruptible capacity products. At biogas virtual entry point, Hamina LNG entry point, Inkoo LNG entry point and at the exit zone, capacity is available without restrictions. Thus, only firm capacity products are available at aforementioned points. At Balticconnector, capacity is allocated according to confirmed nominations. Consequently, at Balticconnector only firm capacity is offered.

Interruptible capacity would only be offered if there is not enough firm capacity available or if there is no physical firm capacity for a certain entry or exit point. In such a situation, shippers are offered interruptible capacity instead of firm capacity. The price of interruptible capacity at Imatra entry point is 5% lower than corresponding firm capacity product. Imatra entry point is not available to market participants.

4.2.4 Tariff discounts for renewable and low carbon gases

The amended regulation (EU) 2024/1789 of the European Parliament and of the Council on the internal market for renewable gas, natural gas, and hydrogen sets a fundamental obligation for transmission system operators to apply a tariff reduction at entry injection points for renewable and low-carbon gas. In order to exploit the most economic locations for the production of renewable gas and low-carbon gas, network users should benefit from discounts in capacity-based tariffs. The reduction recognized in the regulation is 100% for renewable gas and 75% for low-carbon gas. The discount should not affect the general tariff setting methodology but should be provided ex post on the relevant tariff. In order to benefit from the discount, network users should submit to the TSO the required information (Proof of Sustainability or the Guarantees of Origin as the case may be).

Gasgrid Finland implements following discounts according to Article 18 of Regulation (EU) 2024/1789 assuming no changes will arise from the Energy Authority consultation, which is not finished at the time of publishing this document. At the entry points of the Finnish gas system where renewable gas is injected into the network from renewable gas production facilities, Gasgrid applies a 100% discount on the entry capacity tariff. At the entry points of the Finnish gas system where low-carbon gas is injected into the network from low-carbon gas production facility, Gasgrid applies a 75% discount on the entry capacity tariff.

For the renewable and low-carbon gases fulfilling the criteria for allowing the discount, the invoicing of entry capacity products will be carried out in the same manner as currently, and the tariff discounts are implemented through the refund procedure defined by the regulation, where capacity tariffs will be refunded ex-post when the shipper demonstrates in the provided sustainability certificate or guarantees of origin the renewability of the gas injected into the Finnish gas system from the production facility or the low-carbon nature of the gas injected into the Finnish gas system in the provided sustainability certificate (proof of sustainability). The discount is granted for renewable or low-carbon gas that is physically injected into the Finnish gas system from a renewable or low-carbon gas production facility directly connected to the gas system.

The Finnish gas system also has so-called container entry points, which enable the injection of renewable or low-carbon gas into the Finnish gas system from a renewable or low-carbon gas production facility located outside the network (*offgrid*). A discount can be granted for such a container entry point if the shipper can demonstrate in the sustainability certificate (proof of sustainability) that the container from which the renewable or low-carbon gas is injected into the Finnish gas system has been transported by the most direct route from the renewable or low-carbon gas production facility.

4.3 Expected revenue to be collected by transmission services

Expected revenue to be collected by transmission services consists of revenue collected by entry and exit capacity tariffs, commodity charge and the new capacity subscription charge tariff component.
For 2027 transmission services revenue is presented in table below:

Table 7 Estimated transmission service revenue in 2027.

	Entry revenue [M€]	Exit revenue [M€]	Commodity revenue [M€]	Capacity subscription charge revenue [M€]	**Total [M€]**
Transmission service revenue 2027 [M€]	5,1	55,0	3,2	13,0	**76,3**

Table 8 Entry and exit reference prices for 2027.

The price of yearly capacity product (= reference price)	
Entry capacity	
Balticconnector	– €/kWh/day/year
Biogas virtual entry point	0,14277 €/kWh/day/year (0,39115 €/MWh)
Hamina LNG entry point	0,14277 €/kWh/day/year
Imatra	0,14277 €/kWh/day/year
Inkoo LNG entry point	0,14277 €/kWh/day/year
Exit capacity	
Balticconnector	– €/kWh/day/year
Finnish exit zone	1,31283 €/kWh/day/year (3,59679 €/MWh)

4.4 Capacity Subscription Charge

The Capacity Subscription Charge reflects the value of maintaining sufficient transmission capacity to meet customers' peak demand and ensure that the gas system is available when needed.

4.4.1 The determination of the Capacity Subscription Charge

The shipper shall notify the Transmission System Operator with the System Responsibility (hereinafter '*the TSO*') the Capacity Subscription the Shipper has estimated. The Capacity Subscription is defined as the peak hourly capacity to be delivered to the Finnish exit zone, estimated against the shipper's delivery portfolio. The delivery portfolio comprises all consumption sites within the Finnish exit zone for which the shipper has a valid delivery relationship.

The subscribed capacity serves as the basis for preliminary Capacity Subscription Charge invoicing. Final invoicing shall be based on the actual peak consumption hour realized within the shipper's delivery portfolio during the review year.

The shipper shall submit its Capacity Subscription estimate to the TSO using the Capacity Subscription Charge form available on the Gasgrid Portal under "Capacity" tab and selecting "Cap. Subscription charge" no later than December 15, or the next business day if December 15 falls on a weekend.

For example, if the unit price of the Capacity Subscription Charge would be €2163 MW and the shipper's peak capacity is 100 MW, the resulting annual invoice will be €216,300. Invoicing is carried out monthly on the 1st day of the month, or the next business day if the 1st falls on a weekend or public holiday. Preliminary

invoicing based on subscribed capacity is calculated monthly using the formula:

Monthly invoice = Annual invoice / 12.

Final invoicing shall be based on the sum of the actual hourly peak deliveries of the consumption sites belonging to the shipper's delivery portfolio within the Finnish exit zone during the review year, i.e., the highest realized aggregated hourly delivery of the shipper's delivery portfolio. For the sake of clarity, the Capacity Subscription Charge shall not be based on the highest realized hour of each delivery point, but the highest realized sum of all delivery points where the shipper has a valid delivery agreement.

For clarity, in the case of daylight saving time ending (clock moving backward), the repeated hour is treated as two separate hours. If this hour results in the shipper's highest hourly capacity during the review year, the higher of the two hours is used as the basis for the Capacity Subscription Charge invoicing.

After the end of the review year, the TSO shall verify the actual hourly peak delivery for each shipper in the Finnish exit zone and perform a Capacity Subscription Charge reconciliation. The review year is defined as January 1, 202x at 07:00 EET to January 1, 202(x+1) at 07:00 EET. Reconciliation invoicing shall be based on measurement data from the final balance settlement.

Reconciliation Invoicing

Reconciliation invoicing based on the aggregated actual hourly peak deliveries of the shipper delivery portfolio during the review year shall be completed by January 20, or the next business day if January 20 falls on a weekend.

- If the shipper's actual peak delivery exceeds the subscribed capacity, Gasgrid will invoice the difference multiplied by the unit price of the Capacity Subscription Charge.

- If the shipper's actual peak delivery is lower than the subscribed capacity, Gasgrid will credit the difference multiplied by the unit price of the Capacity Subscription Charge.

Changes in Delivery Relationships During the Year and their impact on the Capacity Subscription Charging

If new gas consumption sites are added to the shipper's delivery portfolio during the review year, they will be considered in the reconciliation invoicing of the Capacity Subscription Charge after the review year. If the shipper's delivery portfolio changes during the review year, there may be more than one actual peak hour used as the basis for the capacity subscription charge reconciliation invoicing.

If a new delivery relationship begins during the review year, its impact on the Capacity Subscription Charge will be considered from the gas delivery date when the new relationship became effective. If the shipper's peak hour occurs after the new relationship begins, the impact of the new consumption site shall be included in the reconciliation from the effective date. This principle applies to all new delivery relationships established during the year.

If the highest peak demand hour of the review year occurs after the addition of the new delivery point, basis for the reconciliation invoicing for the period prevailing the addition is the higher of the following:

1. highest realized peak demand hour before adding the new delivery point.

2. highest actual peak demand hour of the review year (after addition) subtracted by the share of the new delivery point.

For the sake of clarity, for the time period after the addition of the new delivery point, basis for the reconciliation invoicing is the highest realized peak demand hour.

If the shipper's delivery portfolio's highest determined hourly peak demand before the addition of the delivery point is greater than the highest peak demand determined for the review year after the addition of the delivery point after subtracting the share of the new delivery point from the shipper's delivery portfolio, then the basis used for reconciliation invoicing for the period before the addition of the delivery point is based on the actual peak hour realized during that earlier period.

Similarly, if a consumption site is removed from the shipper's delivery portfolio during the review year (due to a change in delivery relationship or consumption site closure), the impact on the Capacity Subscription Charge shall be considered from the gas delivery date when the relationship ended. Each consumption site must have a valid shipper assignment. If the peak hour occurs before the delivery relationship ends, the impact of the removed consumption site shall be considered from the end date of the relationship. This principle also applies to other delivery relationships that ended during the year.

The impact of removed consumption site(s) on the Capacity Subscription Charge shall be assessed from the hour that constituted the shipper's peak hour from the beginning of the review year until the end of the delivery relationship. The effect of a removed site is considered based on the hour that contributed to the shipper's highest hourly delivery sum up to the change, rather than the site's peak hour over the entire review period. Therefore, this hour may differ from the hour used to calculate the shipper's Capacity Subscription Charge.

In distribution networks, the residual consumption portfolio includes sites that are read less frequently than daily, unmeasured sites, and distribution network losses. The TSO does not have site-specific data for the residual consumption portfolio, and it is therefore treated as a single delivery site for Capacity Subscription Charge purposes.

4.4.2 Capacity subscription charge unit price

The capacity subscription charge for the tariff period 2027 is 2163,00 €/MW. This is estimated to cover approximately 17 % of the targeted transmission service revenue for 2027.

4.5 Commodity tariff

Commodity tariff is flow-based tariff which is collected from the exit zone. Due to the ITC agreement, compressor costs caused by regional flow (exit through Balticconnector), are compensated via the agreement. A major part of the flow-based costs is caused by the compressor stations – more specifically the compressor units' gas and electricity which is used for the own use. A flow-based charge provides a way of recovering the associated costs from shippers in a cost-reflective manner.

The commodity-based tariff is targeted to be set so that it covers the flow-based costs of domestic gas consumption. For the year 2027, the target revenue to be collected by commodity tariff is 3.23 M€.

Most of the costs are estimated to be caused by the commodity compensation of the pressure reduction stations as well as the use of the Inkoo compressor unit. The consumption of gas-fueled compressor stations in Finland has been low. The costs arising from these factors are proportionately charged to shippers through flow-based commodity charge.

In the commodity charge calculation, it is estimated that domestic gas consumption would be 11 TWh. This results to the commodity charge of 0,00029355 €/kWh (= 0,29355 €/MWh) in 2027.

4.6 Centralized data exchange charge (= datahub charge)

Starting from the Finnish gas market opening in 2020, centralized data exchange system, datahub, was introduced in the retail market. Retailers and distribution system operators are carrying out their retail market processes through the datahub. The datahub is operated by Gasgrid Finland. Since the system has a legal monopoly in the provision of its services, the regulation method for pricing of the services was established on 1st of July 2020. Supervision of datahub's operation is entrusted to the Energy Authority.

The DSO is charged with regard to the consumption sites in distribution networks owned or operated by the DSO for which information is maintained in the register of centralized data exchange system (= all daily or non-daily read metering sites in the distribution network except small-scale individual non-daily read sites using gas only for cooking purposes).

According to the principles of regulation method for datahub service, the target turnover to be collected by datahub charge is 100 000 € in 2027. Gasgrid Finland is entitled to collect regulated profit from datahub service. There are approximately 3 750 delivery points which are subject to the invoice of the datahub charge. The datahub charge for 2027 is 2,33 €/metering point/month.

4.7 Balticconnector underutilization fee

Underutilization fee is applicable in the Balticconnector entry and exit points and it is applied only during days, when Balticconnector is congested. The principles regarding the underutilization fee are determined in the terms and conditions of Balticconnector. Shippers may renominate downward in the Balticconnector free of charge a maximum of tolerance set by the TSO. The TSO may change the tolerance limit between 10 000 and 50 000 kWh/h, taking into account the operational operating limits of the Finnish natural gas system. The underutilization fee of 0,002 €/kWh is charged to the shipper for the amount exceeding the tolerance limit.

4.8 Ratios for the transmission service revenue (TAR NC Article 30(1)(b)(v))

Capacity-commodity split, meaning the breakdown between the revenue from capacity-based transmission tariffs and the revenue from commodity-based transmission tariffs, is calculated in a following way:

$$Capacity\ share = \frac{Capacity\ revenue}{Total\ transmission\ service\ revenue} * 100\ \%$$

$$Commodity\ share = \frac{Commodity\ revenue}{Total\ transmission\ service\ revenue} * 100\ \%$$

Capacity-commodity split: 96%/4% (including capacity subscription charge)

Entry-exit split, meaning the breakdown between the revenue from capacity-based transmission tariffs at all entry points and the revenue from capacity-based transmission tariffs at all exit points, is calculated in a following way:

$$Entry\ share = \frac{Entry\ revenue}{Total\ revenue\ collected\ by\ capacity\ tariffs} * 100\ \%$$

$$Exit\ share = \frac{Exit\ revenue}{Total\ revenue\ collected\ by\ capacity\ tariffs} * 100\ \%$$

Entry-exit split: 7%/93% (including capacity subscription charge)

Intra-system/cross-system split means the breakdown between the revenue from intra-system network use at both entry points and exit points and the revenue from cross-system network use at both entry points and exit points.

Intra-system-cross-system split: 100%/0%*

* *ITC mechanism redistributes the entry revenue based on domestic consumption. Thus, TSOs in the common tariff area do not collect revenue from cross-system flows.*

4.9 Estimated difference between transmission tariffs applicable to the same type of transmission service during the tariff period for which the data are published and transmission tariffs applicable during other tariff periods of the regulatory period

Table 9 Tariffs for 2020-2027.

	2020	2021	2022	2023	2024	2025	2026	2027
Entry reference price [€/kWh/day/year]	0,14277	0,14277	0,14277	0,14277	0,14277	0,14277	0,14277	0,14277
Exit reference price [€/kWh/day/year]	1,00567	1,00567	0,83592	0,97875	1,31283	1,31283	1,31283	1,31283

5 The simplified tariff model according to TAR NC 30 (2)(b)

The simplified tariff model can be found from Gasgrid Finland's website: https://gasgrid.fi/en/our-services/transmission-tariffs-and-service-price-list/

6 The price list of Gasgrid Finland 2027

Transmission tariffs and service prices in tariff period 2027 (1.1.2027 07:00 EET - 1.1.2028 07:00 EET)

In Finland, the *postage stamp* reference price methodology is applied. In the postage stamp methodology, the distance between entry and exit points or the technical transmission capacity do not affect the unit price of entry or exit capacity, but the tariff for entry or exit capacity is the same for all entry or exit points.

Firm capacity products

The price of yearly capacity product (= *reference price*)	
Entry capacity	
Balticconnector	– €/kWh/day/year
Biogas virtual entry point	0,14277 €/kWh/day/year (0,39115 €/MWh)
Hamina LNG entry point	0,14277 €/kWh/day/year
Imatra	0,14277 €/kWh/day/year
Inkoo LNG entry point	0,14277 €/kWh/day/year
Exit capacity	
Balticconnector	– €/kWh/day/year
Finnish exit zone	1,31283 €/kWh/day/year (3,59679 €/MWh)

The price of short-term entry capacity products	
Entry Capacity product	Tariff multiplier
Year (= *reference price*)	1,00
Quarter	1,10
Month	1,25
Day	1,50
Within-day	1,70
Capacity overrun	1,5 x 1,7 = 2,55

The price of short-term exit capacity products	
Exit Capacity product	Tariff multiplier
Year (= *reference price*)	1,00
Quarter	1,10
Month	1,25
Day	2,0
Within-day	2,50
Capacity overrun	1,5 x 2,5 = 3,75

At the time of publishing this document the Energy Authority has not yet confirmed the tariff multipliers for 2027. Same multipliers are assumed for 2027 as in 2026.

The tariffs for short-term capacity products are calculated by multiplying the reference price (the price of an annual capacity product) by the tariff multiplier of short-term capacity products.

Example (imaginary numbers): The tariff of monthly capacity at the Finnish exit zone:

$$Tariff = (1{,}31283 \times 1{,}25)\ €/\mathrm{kWh/day/month} = 1{,}64104\ €/\mathrm{kWh/day/month}$$

Capacity subscription charge

Capacity Subscription Charge	
Based on the highest peak demand hour of the shipper's exit zone portfolio during the year	2163,00 €/MW

The unit price of the capacity subscription charge is 2163,00 €/MW.

The capacity subscription charge is based on the highest peak demand hour of the shipper's exit zone portfolio during the year. Shipper shall submit its estimation for the peak demand for next year in Gasgrid Portal no later than December 15, or the next business day if December 15 falls on a weekend which shall act as the basis of the monthly invoice during the year. After the year has passed invoices will be settled based on the actual peak demand hour of the year for the shipper.

Commodity charge

Commodity charge (= *energy charge*) is charged at Finnish exit zone.	
Based on the transported gas quantity	0,00029355 €/kWh (0,29355 €/MWh)

Interruptible capacity

At Inkoo LNG entry point, Hamina LNG entry point and biogas virtual entry point, there is no discount for interruptible capacity, because Gasgrid Finland foresees to be able to receive LNG fulfilling the quality requirements without limitation meaning that only firm capacity will be offered. Only firm capacity is offered also at the Finnish exit zone.

At Balticconnector, capacity is allocated according to the confirmed nominations. Thus, only firm capacity is offered.

The price of interruptible capacity at the Imatra entry point is 5% lower than that of equivalent firm capacity products. However, capacity at the Imatra entry point is not available to market participants.

Capacity overrun charge

Capacity overrun charge

Capacity overrun charge pricing: One and a half (1,5) times the unit price based on within-day firm capacity will be charged for the quantity exceeding the booked capacity.

$$\boldsymbol{Capacity\ overrun\ charge = reference\ price \times 1,5 \times multiplier\ of\ for\ withinday\ capacity}$$

Capacity overrun charge is paid at the exit zone, biogas virtual entry point and Inkoo LNG entry point.

Finnish exit zone: If, based on the results of the final balance settlement, exit quantities during the gas day to the domestic end consumption exceed the shipper's total exit zone capacity of the gas day, the shipper must pay capacity overrun charge for the gas quantity exceeding the allocated capacity.

Biogas virtual entry point: If, based on the results of the final balance settlement, gas entry quantities injected into the Finnish gas system during the gas day through biogas virtual entry point exceed the shipper's total biogas virtual entry point capacity of the concerned gas day, the shipper must pay capacity overrun charge for the gas quantity exceeding the allocated capacity.

Inkoo LNG entry point: If, based on the results of the final balance settlement, gas entry quantities injected into the Finnish gas system during the gas day through Inkoo LNG entry point exceed the shipper's total Inkoo LNG entry point capacity of the concerned gas day, the shipper must pay capacity overrun charge for the gas quantity exceeding the allocated capacity.

Underutilization fee of Balticconnector

Underutilization fee is applicable at the Balticconnector entry and exit point. The principles regarding the underutilization fee are determined in the terms and conditions of Balticconnector capacity allocation mechanism.

Tolerance: 10 000 - 50 000 kWh/h
Pricing: 0,002 €/kWh

Centralized data exchange charge (= gas datahub)

The centralized data exchange charge is charged from the Distribution System Operators. The DSO is charged with regard to the consumption sites in distribution networks owned or operated by the DSO for which information is maintained in the register of centralized data exchange system (= all daily or non-daily read metering sites in the distribution network except small-scale individual non-daily read sites using gas only for cooking purposes).

Pricing: 2,33 €/metering site/month

Charges levied from Balance management

The principles for determining the buy and sell prices of imbalance gas, including neutrality charges, are described in the Terms and Conditions of Balancing, which can be found on Gasgrid's website.

Other charges

Pricing for connections

TSO has obligation to connect new infrastructure to its grid as long as connecting infrastructure fulfils technical requirements set by the TSO. Connecting infrastructure may consist of natural gas usage or storage facilities as well as LNG or biogas infrastructure. TSO is justified to collect all reasonable costs which have been generated because of the new connection.

Pricing: Price of the connection is evaluated by Gasgrid Finland case by case.

Nomination imbalance charge

A nomination imbalance charge may be applied in Finnish exit zone.

Pricing: 0 €/kWh

Compensation for non-conformity with gas quality and supply requirements

Compensation terms and conditions have been mentioned in the Shipper and Trader Framework Agreement which can be found from Gasgrid webpage.

Charges in a prevailing emergency situation

Compensation is agreed separately case by case between the transmission system operator with system responsibility and the shipper.

Capacity right transfer charge

Pricing: 0 €/transfer notification

Appendix 1: Network component list of Regulation method

Network component	Unit	€/unit	Lifetime replacement interval
TRANSMISSION NETWORK PIPE SYSTEM			
PIPE SIZE, 54bar(g)			
DN 80 or lower	km	420,000	50 - 65
DN 100	km	450,000	50 - 65
DN 150	km	540,000	50 - 65
DN 200	km	580,000	50 - 65
DN 250	km	630,000	50 - 65
DN 300	km	630,000	50 - 65
DN 400	km	780,000	50 - 65
DN 500	km	1,000,000	50 - 65
DN 700	km	1,220,000	50 - 65
DN 800	km	1,680,000	50 - 65
DN 900	km	1,760,000	50 - 65
DN 1000	km	3,790,000	50 - 65
PIPE SIZE, 54bar(g)			
DN 100	km	980,000	50 - 65
DN 500	km	980,000	50 - 65
PIPE SIZE, 8 bar(g), LOW PRESSURE PIPE, PEH PLASTIC			
PEH 315	km	380,000	65
PEH 200	km	330,000	65
below PEH 200	km	310,000	65
Fjusö-Paldiski marine pipeline, Finland's share			
Fjusö-Paldiski marine pipeline, Finland's share	km	519,800	65
Ground pipeline Inkoo - Fjusö			
Ground pipeline Inkoo - Fjusö	km	287,000	65
Ground pipeline Pölans-Inkoo			
Ground pipeline Pölans-Inkoo	km	348,000	65
TRANSMISSION NETWORK STATIONS			
PRESSURE CONTROL STATIONS			
Pressure reduction station 500 – 1000 MW without boiler	pcs	1,880,000	65
Pressure reduction station 500 – 1000 MW / Boiler	pcs	150,000	20
Pressure reduction station 500 – 1000 MW	pcs	2,030,000	65
Pressure reduction station 250 – 500 MW without boiler	pcs	1,380,000	65
Pressure reduction station 250 – 500 MW / Boiler	pcs	150,000	20
Pressure reduction station 250 – 500 MW	pcs	1,530,000	65
Pressure reduction station 100 – 250 MW without boiler	pcs	1,050,000	65
Pressure reduction station 100 – 250 MW / Boiler	pcs	150,000	20
Pressure reduction station 100 – 250 MW	pcs	1,200,000	65
Pressure reduction station 50 – 100 MW without boiler	pcs	520,000	65
Pressure reduction station 50 – 100 MW / Boiler	pcs	150,000	20

Pressure reduction station 50 – 100 MW	pcs	**670,000**	65
Pressure reduction station less than 50 MW without boiler	pcs	**300,000**	65
Pressure reduction station less than 50 MW / Boiler	pcs	**150,000**	20
Pressure reduction station less than 50 MW	pcs	**450,000**	65
Quality management equipment, per station	pcs	**170,000**	20
RECEPTION MEASUREMENT AND COMPRESSOR STATIONS			
Reception measurement. Imatra	pcs	**8,750,000**	60
Reception measurement. Inkoo	pcs	**8,750,000**	60
Compressor station piping and equipment	pcs	**7,770,000**	60
Compressor unit 4.7 MW	pcs	**6,830,000**	60
Compressor unit 5.0 MW	pcs	**6,920,000**	60
Compressor unit Inkoo	pcs	**12,449,000**	60
Compressor unit 6.5 MW	pcs	**7,070,000**	60
Compressor unit 10.0 MW	pcs	**10,590,000**	60
Compressor station automation equipment, per station	pcs	**2,000,000**	20
Compressor hall	m2	**2,808**	60
Inkoo LNG terminal interface / Gas extraction arm	pcs	**1,886,000**	60