



**Demand assessment report
for incremental capacity at
IPs located at the border
between *Ukrainian* and
*Romanian gas transmission systems***

2021-10-25

This report is a joint assessment of the potential for incremental capacity projects
conducted by



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A. Non-binding Demand indications

During the public market demand assessment procedure, the interested gas market participants have sent indicative data on the incremental capacity for the two interconnection points between Ukraine and Romania, namely:

- **(IP) Isaccea 1 / Orlovka 1** – represents the interconnection between *the Gas Transmission System of Ukraine* operated by **Gas Transmission System Operator of Ukraine** (hereinafter referred to as **GTSOU**) and *the National Gas Transmission System of Romania* operated by **SNTGN Transgaz S.A. Romania** (hereinafter referred to as **TRANSGAZ**), located on the Ukrainian-Romanian border near Orlovka (Ukraine) and near Isaccea (Romania), which can be currently used for gas transmission both from Ukraine to Romania and from Romania to Ukraine.
- **(IP) Tekove / Mediesu Aurit** – represents the interconnection between *the Gas transmission system of Ukraine* operated by **GTSOU** and *the National Gas Transmission System of Romania* operated by **TRANSGAZ**, located on the Ukrainian-Romanian border near Tekove (Ukraine) and near Mediesu Aurit (Romania), which allows for gas transmission in the Ukraine to Romania direction.

In accordance with the Interconnection Agreement concluded between the National Gas Transmission Company Transgaz S.A. and Limited Liability Company Gas Transmission System Operator of Ukraine for **IP Isaccea 1 / Orlovka** the following technical capacities are currently available:

Maximum technical capacity	Isaccea 1 / Orlovka 1 (UA>RO)	
	m ³ (0)/d	kWh/h
	17 776 800	8 454 054

Maximum technical capacity (currently offered on an interruptible basis and subject to capacity booking in the Negru Voda1/Kardam IP in the BG-RO direction).	Isaccea 1 / Orlovka 1 (RO>UA)	
	m ³ (0)/d	kWh/h
	10 709 950	5 059 217

Due to the lack of an Interconnection Agreement for the Mediesu Aurit IP, the gas transmission through the Mediesu Aurit IP in the UA-RO direction cannot be ensured currently.

Maximum technical capacity (not offered currently because of the lack of a signed IA)	On the Ukrainian side of IP Tekove / Mediesu Aurit (UA>RO)	
	m ³ (0)/d	kWh/h
	12 758 810	6 067 664

Maximum technical capacity (not offered currently because of the lack of a signed IA)	On the Romanian side of IP Tekove / Medieșu Aurit (UA>RO)	
	m ³ (0)/d	kWh/h
	10 416 019	4 953 512

Maximum technical capacity (reverse flow, non-existent)	Tekove / Mediesu Aurit(RO>UA)	
	m ³ (0)/d	kWh/h
	0	0

GTSOU and Transgaz have received non-binding demand indications for firm capacity at the interconnection points between the entry-exit system border for future periods as described below.

Incremental capacity indications submitted for each TSO are not identical because some interested market participants have sent the non-binding indicative incremental capacity demands only to one TSO. The two TSOs have jointly agreed to consider all indicative requests submitted, regardless of which side of the border they were received on.

A non-binding capacity demand was submitted later than 8 weeks after the start of the incremental capacity process, respectively by 30 August 2021. Nevertheless, GTSOU and Transgaz have decided to consider the indications from such demand according to the provisions of art. 26, paragraph (7) of CAM NC.

The following **aggregated non-binding demand indications received by GTSOU** for firm capacity at IP **Isaccea1/Orlovka1** (21Z00000000304Z) have been used as a basis for this demand assessment:

From [entry-exit system name] “EXIT CAPACITY”	To [entry-exit system name] “ENTRY CAPACITY”	Gas year [yyyy/yy]	Amount [(kWh/h)/y]	Amount [m3(0)/d/y]	Type of capacity [firm, interruptible]	Date when Demand Indication was received* [please include the period according to the numbers 1) - 3)]	Additional Information
Romania	Ukraine	2021/2022	50 000	113 208	firm	2	There is no firm transmission capacity in the RO-UA direction
Romania	Ukraine	2022/2023	50 000	113 208	firm	2	There is no firm transmission capacity in the RO-UA direction
Romania	Ukraine	2023/2024	50 000	113 208	firm	2	There is no firm transmission capacity in the RO-UA direction

* The following standardised period shall be used for indicating the receiving date of the demand indication:

- 1) later than eight weeks after the annual yearly capacity auction in the previous incremental capacity cycle, that have not been considered previously;
- 2) within eight weeks after this year’s yearly capacity auction (0 – 8 weeks after yearly auction in year);
- 3) later than eight weeks after this year’s yearly capacity auction, but that will be considered in this incremental capacity cycle (9– 16 weeks after yearly auction in year).

The following **aggregated non-binding demand indications received by GTSOU** for firm capacity at IP **Tekove/Mediesu Aurit** (21Z00000000158K) have been used as a basis for this demand assessment:

From [entry-exit system name] “EXIT CAPACITY”	To [entry-exit system name] “ENTRY CAPACITY”	Gas year [yyyy/yy]	Amount [(kWh/h)/y]	Amount [m3(0)/d/y]	Type of capacity [firm, interruptible]	Date when Demand Indication was received* [please include the period according to the numbers 1) - 3)]	Additional Information
Romania	Ukraine	2021/2022	1 286 667	2 913 208	firm	2	There is no firm transmission capacity in the RO-UA direction
Romania	Ukraine	2022/2023	1 286 667	2 913 208	firm	2	There is no firm transmission capacity in the RO-UA direction
Romania	Ukraine	2023/2024	3 109 667	7 040 756	firm	2	There is no firm transmission capacity in the RO-UA direction
Romania	Ukraine	2024/2025	3 059 667	6 927 548	firm	2	There is no firm transmission capacity in the RO-UA direction
Romania	Ukraine	2025/2026	3 059 667	6 927 548	firm	2	There is no firm transmission capacity in the RO-UA direction
Romania	Ukraine	2026/2027	3 059 667	6 927 548	firm	2	There is no firm transmission capacity in the RO-UA direction
Romania	Ukraine	2027/2028	3 059 667	6 927 548	firm	2	There is no firm transmission capacity in the RO-UA direction
Romania	Ukraine	2028/2029	3 059 667	6 927 548	firm	2	There is no firm transmission capacity in the RO-UA direction
Romania	Ukraine	2029/2030	3 059 667	6 927 548	firm	2	There is no firm transmission capacity in the RO-UA direction
Romania	Ukraine	2030/2031	1 823 000	4 127 547	firm	2	There is no firm transmission capacity in the RO-UA direction
Romania	Ukraine	2031/2032	1 823 000	4 127 547	firm	2	There is no firm transmission capacity in the RO-UA direction
Romania	Ukraine	2032/2033	1 823 000	4 127 547	firm	2	There is no firm transmission capacity in the RO-UA direction
Romania	Ukraine	2033/2034	1 823 000	4 127 547	firm	2	There is no firm transmission capacity in the RO-UA direction
Romania	Ukraine	2034/2035	1 823 000	4 127 547	firm	2	There is no firm transmission capacity in the RO-UA direction
Romania	Ukraine	2035/2036	1 823 000	4 127 547	firm	2	There is no firm transmission capacity in the RO-UA direction

Romania	Ukraine	2036/2037	1 823 000	4 127 547	firm	2	There is no firm transmission capacity in the RO-UA direction
Romania	Ukraine	2037/2038	1 823 000	4 127 547	Firm	2	There is no firm transmission capacity in the RO-UA direction
Ukraine	Romania	2021/2022	458 000	1 036 981	firm	2	Only for Q1 and Q2 of gas year. There is no interconnection agreement for IP Tekove/Mediesu Aurit
Ukraine	Romania	2022/2023	458 000	1 036 981	firm	2	Only for Q1 and Q2 of gas year. There is no interconnection agreement for IP Tekove/Mediesu Aurit

* The following standardised period shall be used for indicating the receiving date of the demand indication:

- 1) later than eight weeks after the annual yearly capacity auction in the previous incremental capacity cycle, that have not been considered previously;
- 2) within eight weeks after this year's yearly capacity auction (0 – 8 weeks after yearly auction in year);
- 3) later than eight weeks after this year's yearly capacity auction, but that will be considered in this incremental capacity cycle (9– 16 weeks after yearly auction in year).

The following **aggregated non-binding demand indications received by SNTGN Transgaz S.A.** for firm capacity at IP **Isaccea1/Orlovka1** (21Z00000000304Z) have been used as a basis for this demand assessment:

From [entry-exit system name] “EXIT CAPACITY”	To [entry-exit system name] “ENTRY CAPACITY”	Gas year [yyyy/yy]	Amount [(kWh/h)/y]	Amount [m3(0)/d/y]	Type of capacity [firm, interruptible]	Date when Demand Indication was received* [please include the period according to the numbers 1) - 3)]	Additional Information
Romania	Ukraine	2021/2022	250 000	566 038	firm	3	There is no firm transmission capacity in the RO-UA direction. The existing technical capacity is temporarily offered as interruptible capacity and is subject to capacity booking in IP Negru Voda1/Kardam on the BG-RO direction.
Romania	Ukraine	2022/2023	250 000	566 038	firm	3	There is no firm transmission capacity in the RO-UA direction. The existing technical capacity is temporarily offered as interruptible capacity and is subject to capacity booking in IP Negru Voda1/Kardam on the BG-RO direction.
Romania	Ukraine	2023/2024	250 000	566 038	firm	3	There is no firm transmission capacity in the RO-UA direction. The existing technical capacity is temporarily offered as interruptible capacity and is subject to capacity booking in IP Negru Voda1/Kardam on the BG-RO direction.
Romania	Ukraine	2024/2025	250 000	566 038	firm	3	There is no firm transmission capacity in the RO-UA direction. The existing technical capacity is temporarily offered as interruptible capacity and is subject to capacity booking in IP Negru Voda1/Kardam on the BG-RO direction.
Romania	Ukraine	2025/2026	250 000	566 038	firm	3	There is no firm transmission capacity in RO-UA direction. The existing technical capacity is temporarily offered as interruptible capacity and is subject to capacity booking in IP Negru Voda1/Kardam on the BG-RO direction.
Romania	Ukraine	2026/2027	250 000	566 038	firm	3	There is no firm transmission capacity in the RO-UA direction. The existing technical capacity is temporarily offered as interruptible capacity and is subject to capacity booking in IP Negru Voda1/Kardam on the BG-RO direction.

Romania	Ukraine	2027/2028	250 000	566 038	firm	3	There is no firm transmission capacity in the RO-UA direction. The existing technical capacity is temporarily offered as interruptible capacity and is subject to capacity booking in IP Negru Voda1/Kardam on the BG-RO direction.
Romania	Ukraine	2028/2029	250 000	566 038	firm	3	There is no firm transmission capacity in the RO-UA direction. The existing technical capacity is temporarily offered as interruptible capacity and is subject to capacity booking in IP Negru Voda1/Kardam on the BG-RO direction.
Romania	Ukraine	2029/2030	250 000	566 038	firm	3	There is no firm transmission capacity in the RO-UA direction. The existing technical capacity is temporarily offered as interruptible capacity and is subject to capacity booking in IP Negru Voda1/Kardam on the BG-RO direction.
Romania	Ukraine	2030/2031	250 000	566 038	firm	3	There is no firm transmission capacity in the RO-UA direction. The existing technical capacity is temporarily offered as interruptible capacity and is subject to capacity booking in IP Negru Voda1/Kardam on the BG-RO direction.

* The following standardised period shall be used for indicating the receiving date of the demand indication:

- 1) later than eight weeks after the annual yearly capacity auction in the previous incremental capacity cycle, that have not been considered previously;
- 2) within eight weeks after this year's yearly capacity auction (0 – 8 weeks after yearly auction in year);
- 3) later than eight weeks after this year's yearly capacity auction, but that will be considered in this incremental capacity cycle (9– 16 weeks after yearly auction in year).

The following **aggregated non-binding demand indications received by SNTGN Transgaz S.A** for firm capacity at IP **Tekove/Mediesu Aurit** (21Z00000000158K) have been used as a basis for this demand assessment:

From [entry-exit system name] “EXIT CAPACITY”	To [entry-exit system name] “ENTRY CAPACITY”	Gas year [yyyy/yy]	Amount [(kWh/h)/y]	Amount [m3(0)/d/y]	Type of capacity [firm, interruptible]	Date when Demand Indication was received* [please include the period according to the numbers 1) - 3)]	Additional Information
Romania	Ukraine	2021/2022	-				
Romania	Ukraine	2022/2023	-				
Romania	Ukraine	2023/2024	1 823 000	4 127 547	firm	2	There is no firm transmission capacity in the RO-UA direction.
Romania	Ukraine	2024/2025	1 823 000	4 127 547	firm	2	There is no firm transmission capacity in the RO-UA direction.
Romania	Ukraine	2025/2026	1 823 000	4 127 547	firm	2	There is no firm transmission capacity in the RO-UA direction.
Romania	Ukraine	2026/2027	1 823 000	4 127 547	firm	2	There is no firm transmission capacity in the RO-UA direction.
Romania	Ukraine	2027/2028	1 823 000	4 127 547	firm	2	There is no firm transmission capacity in the RO-UA direction.
Romania	Ukraine	2028/2029	1 823 000	4 127 547	firm	2	There is no firm transmission capacity in the RO-UA direction.
Romania	Ukraine	2029/2030	1 823 000	4 127 547	firm	2	There is no firm transmission capacity in the RO-UA direction.
Romania	Ukraine	2030/2031	1 823 000	4 127 547	firm	2	There is no firm transmission capacity in the RO-UA direction.
Romania	Ukraine	2031/2032	1 823 000	4 127 547	firm	2	There is no firm transmission capacity in the RO-UA direction.
Romania	Ukraine	2032/2033	1 823 000	4 127 547	firm	2	There is no firm transmission capacity in the RO-UA direction.

							in the RO-UA direction.
Romania	Ukraine	2033/2034	1 823 000	4 127 547	firm	2	There is no firm transmission capacity in the RO-UA direction.
Romania	Ukraine	2034/2035	1 823 000	4 127 547	firm	2	There is no firm transmission capacity in the RO-UA direction.
Romania	Ukraine	2035/2036	1 823 000	4 127 547	firm	2	There is no firm transmission capacity in the RO-UA direction.
Romania	Ukraine	2036/2037	1 823 000	4 127 547	firm	2	There is no firm transmission capacity in the RO-UA direction.
Romania	Ukraine	2037/2038	1 823 000	4 127 547	firm	2	There is no firm transmission capacity in the RO-UA direction.

* The following standardised period shall be used for indicating the receiving date of the demand indication:

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- 2) within eight weeks after this year's yearly capacity auction (0 – 8 weeks after yearly auction in year);
- 3) later than eight weeks after this year's yearly capacity auction, but that will be considered in this incremental capacity cycle (9– 16 weeks after yearly auction in year).

B. Demand assessment

i. Results of current auctions for yearly capacity

The firm capacity at the interconnection points Isaccea 1/Orlovka 1 (flow direction from Romania to Ukraine) and Tekove/Medieșu Aurit (both directions) was not offered at the current annual auction.

For IP Isaccea 1/Orlovka 1, on the Romanian side, the existing technical capacity has been offered on an interruptible basis and subject to capacity booking in IP Negru Voda1/Kardam, on the BG-RO direction, but has not been requested and booked.

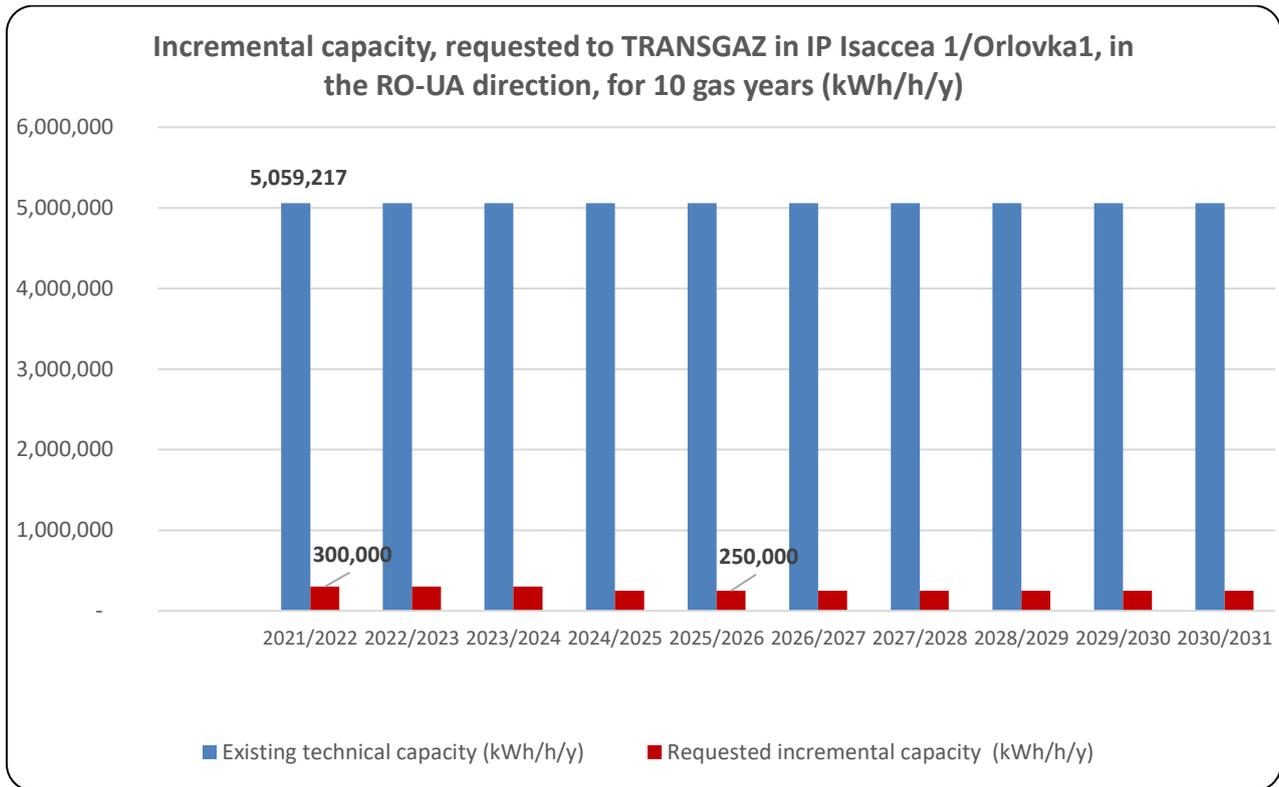
For IP Isaccea 1/Orlovka 1, on the Ukrainian side, the existing technical capacity has been offered on an interruptible basis, but has not been requested and booked.

Auctions results may be found on the Regional Booking Platform webpage: <https://ipnew.rbp.eu/RBP.eu/#capacityauctions>

ii. Expected amount, direction and duration of demand for incremental capacity

The evaluation of the demand for incremental capacity is based on the existing technical capacity and the non-binding requests for incremental capacity between the two entry-exit systems. The analysis focuses on the requested transport direction as well as for each side of the entry-exit system.

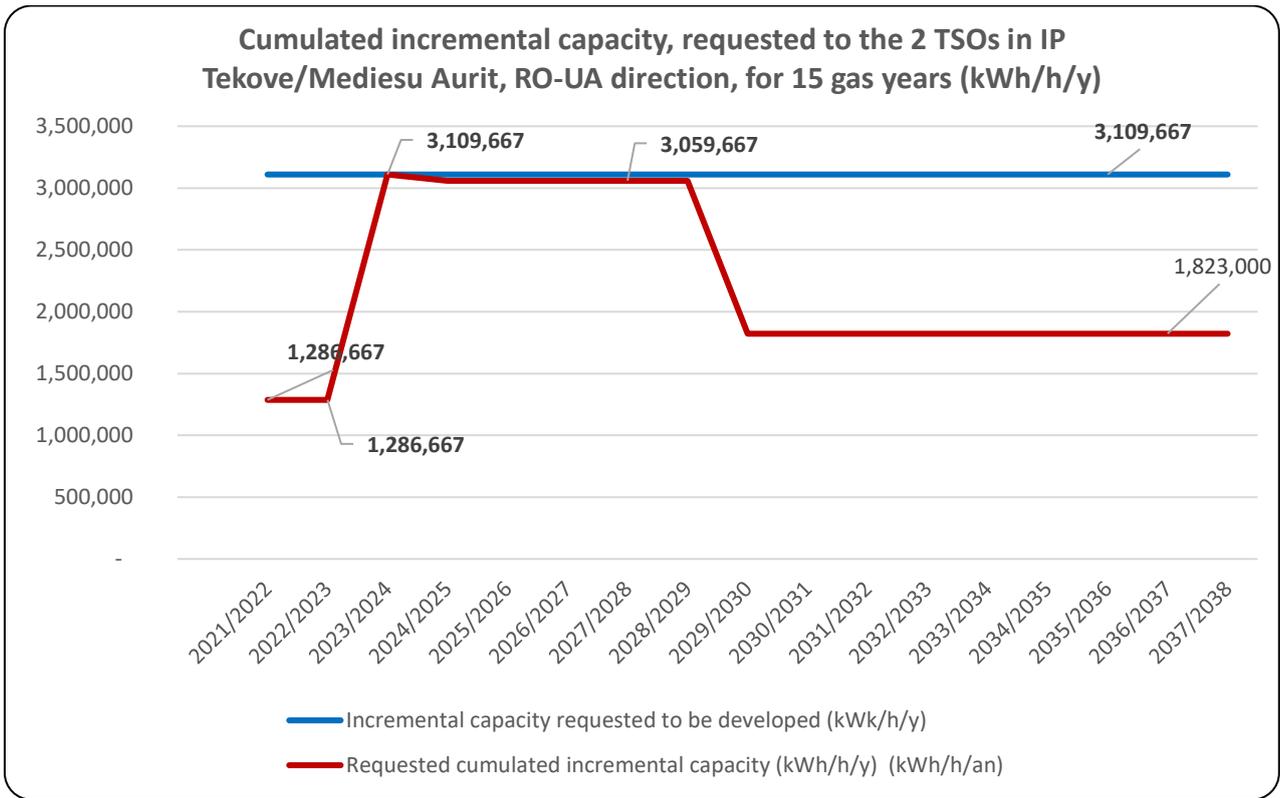
For IP **Isaccea 1/Orlovka 1, on the flow direction (RO-UA)**, the cumulated non-binding incremental capacity indications received by the two TSOs are at the maximum level of 300 000 kWh/h/year for 3 gas years (from 2021/2022 to 2023/2024) and at the level of 250 000 kWh/h/year for the following 7 gas years (from 2024/2025 to 2030/2031). **The existing technical capacity on this direction (5 059 217 kWh/h/year) is offered temporarily on interruptible basis** (as the gas quality requirements in Romania and Bulgaria are different from the gas quality requirements in Ukraine) and from Romanian side **is conditional on the capacity booking in IP Negru Voda1/Kardam on BG-RO direction.**



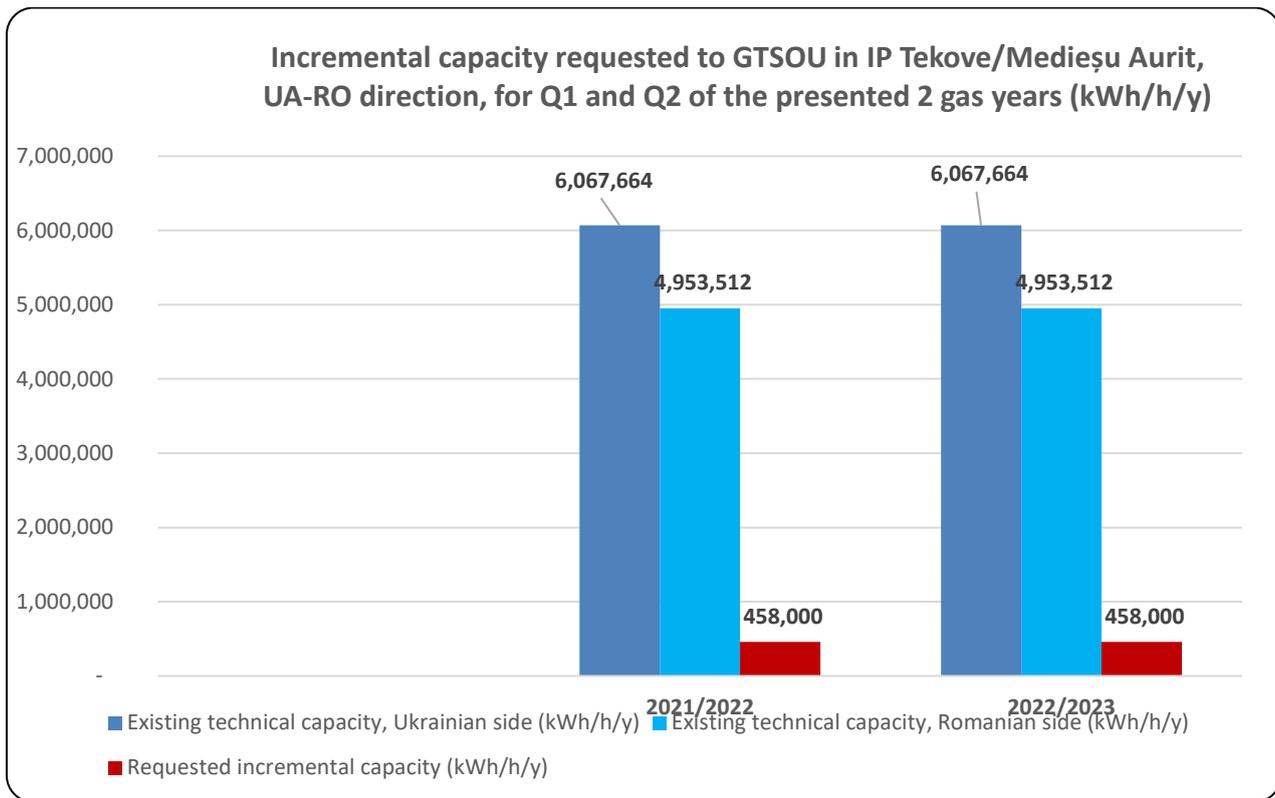
On the Ukrainian side the corresponding project “*Transportation of natural gas through Trans-Balkan pipeline in two directions*” for **IP Isaccea / Orlovka** (up to 55 790 000 m³(0)/d capacity) were studied in the national TYNDP 2020-2029.

For IP **Tekove/Mediesu Aurit, on the flow direction (RO-UA)**, the maximum cumulated demand, received by the two TSOs, is at the level of **3 109 667 kWh/h/year** in the gas year 2023/2024 and 3 059 667 kWh/h/year for the following 6 gas years (from 2024/2025 to 2029/2030). This IP is unidirectional, so in the requested direction (RO-UA), the technical capacity is 0 kWh/h/year.

The capacity requested to be developed is at the level of the peak cumulated demand of 3 109 667 kWh/h/year in the gas year 2022/2023.



For IP **Tekove/Mediesu Aurit, on the flow direction (UA-RO)**, there was only one incremental capacity request at the level of 458 000 kWh/h/year, received only by GTSOU and only for Q1 and Q2 of gas years 2021/2022 and 2022/2023. The technical capacity of IP Medesu Aurit on this direction, presented in section A is 6 067 664 kWh/h/year on the Ukrainian side and 4 953 512 kWh/h/year on the Romanian side, and could supply the demand (except Q1 of the current gas year, which is ongoing), provided that an Interconnection Agreement is concluded between the two TSOs and this capacity is made available to the market.



C. Conclusions for the (non)-initiation of an incremental capacity project/process

At IP **Isaccea 1 / Orlovka 1 in the (RO-UA) flow direction** according to the description at point B, the cumulative non-binding indications received by the two TSOs are at the maximum level of 300 000 kWh/h/year. The existing technical capacity (5 059 217 kWh/h/year) can ensure the cumulative demand for capacity over the entire range, as there are no long-term annual bookings made at this point. **The two TSOs will make joint efforts, so that the existing capacity may be offered to the market as firm capacity as soon as possible.**

Based on the indications on the non-binding requests received, presented as centralized values in Chapter A and on the analysis of the possibility of ensuring the demands made at point B, **we conclude that it is not necessary to initiate an incremental capacity project at IP Isaccea 1/Orlovka 1, in the (RO-UA) flow direction.**

In order to cover the demand registered at **IP Tekove/Mediesu Aurit, the (UA-RO) flow direction**, (Q1 and Q2 of gas years 2021/2022 and 2022/2023), **it is necessary to resume the negotiations between the two TSOs for the conclusion of the related Interconnection Agreement for IP Tekove/Mediesu Aurit**, to provide the market with the existing technical capacity, which covers the demand. **We conclude that it is not necessary to initiate an incremental capacity process at this IP and in this**

transmission direction.

Based on the evaluation of the received non-binding indications as presented in chapter A, and based on the analysis made at point B, we conclude that for **IP Tekove/Mediesu Aurit, the (RO-UA) flow direction, the next phase of this incremental capacity process will be initiated.**

A technical study is necessary to be prepared for this IP and in this transmission direction to determine the feasibility of an incremental capacity project to cover the peak of the cumulated firm capacity demand in the RO-UA direction, presented in section B.

Offer levels will be assessed later, since they are an output of the technical study thoroughly taking into account aspects of technical feasibility.

Therefore, in the upcoming design phase the **two involved TSOs will conduct technical studies based on the expected demand for incremental capacity only for IP Tekove/Mediesu Aurit, the (RO-UA) flow direction**, in line with the considerations presented in paragraph B and the conclusions at point C.

D. Provisional timeline

The involved TSOs plan to conduct the technical studies according to the following provisional timeline:

Start Date	End Date	Description
25.10.2021		Start of Design Phase
25.10.2021	17.01.2022	Technical studies and preparation of public consultation documents
18.01.2022		Publication of consultation documents
18.01.2022	18.02.2022	One month public consultation
19.02.2022	17.03.2022	Further development of the project proposal, potential adjustments of the project parameters based on consultation feedback
18.03.2022		Submission of the project proposal to the NRAs
18.03.2022	17.09.2022	6 months period for national regulatory authorities to publish coordinated decisions on the project proposal
18.09.2022		Publication by the TSO of the parameters approved by NRAs and of a template of the contract(s) related to the capacity to be offered
03.05.2023		Final date for notice publication
03.07.2023		Conducting the yearly capacity auction/incremental capacity auction
		Publication of incremental capacity auctions result (aggregated)
2 days after auction closure		Economic test
1 day after the result of the economic test		Allocation/or not of the requested incremental capacity and publication of the results

The stated dates have provisional character and might therefore be subject to changes.

E. Interim arrangements for the auction of existing capacity on the concerned IP(s)

There is no interim arrangement.

F. Fees

The involved TSOs will not charge fees for activities resulting from the submission of non-binding demand indications.

G. Contact information



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