

**Demand Assessment Report
for the
2023 Incremental Capacity Process
between
BULGARTRANGAZ and DESFA
gas Transmission Systems**

October 2023

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

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Currently, the Bulgarian gas transmission system, operated by Bulgartransgaz, (BG) and the national Greek gas transmission system operated by DESFA (GR), are interconnected in interconnection point (IP) Kulata (BG) /Sidirokastro (GR), which is located in the area of on the Greek-Bulgarian border.

Historically, IP Kulata(BG)/Sidirokastro(GR), was mainly operating as an entry point towards Greece. The technical capacity of that IP, in flow direction from Bulgaria to Greece is approx. 120363 MWh/d, equal at both sides of the IP. As a result of the signing of an Interconnection Agreement between Bulgartransgaz EAD and DESFA S.A., and the reverse connection of the modernized CS Petrich, reverse flow from Greece towards Bulgaria either as backhaul (version 1 of the IA signed in June 2016) or as physical flow in reverse direction (version 2 of the IA signed in June 2017) is also offered, giving the possibility for natural gas imports in Bulgaria. Currently, for a significant amount of the time, Kulata(BG)/Sidirokastro(GR) IP operates as an entry point to Bulgaria. The reverse flow capacity is equal to 66 576 MWh/d, equal at both sides of the IP. In addition, interruptible capacity is also available at both flow directions.

A. Non-binding Demand indications

The Hellenic Gas Transmission System Operator Societe Anonyme (“**DESFA**”) and BULGARTRANGAZ EAD (“**Bulgartransgaz**”) have launched the Demand Assessment Phases of the Incremental Capacity process in July 2023, in line with the provisions of Article 26 of Commission Regulation (EU) 2017/459 establishing a network code on capacity allocation mechanisms in gas transmission systems (“**CAM NC**”). This Demand Assessment Report (“**DAR**”) refers to the Kulata/Sidirokastro IP between DESFA and Bulgartransgaz (the “**TSOs**”).

According to the provisions of CAM NC, on July 3rd 2023, TSOs invited interested parties to submit non-binding indications for incremental capacity at existing or new IPs. In accordance with CAM NC, the following periods have been included in this analysis:

- a) non-binding demand indications received within 8 weeks after the start of the annual yearly capacity auction on 3 July 2023.
- b) non-binding demand indications received later than 8 weeks after the start of the annual yearly capacity auction on 3 July 2023, which would have been considered in the current incremental capacity cycle.

The involved TSOs, Bulgartransgaz and DESFA received (a) non-binding demand indication(s)

from interested parties within the time windows a) and b) described above, for firm capacity at Kulata/Sidirokastro IP between the entry-exit system of Bulgartransgaz and the entry-exit system of DESFA. The total amount of these non-binding demand indication(s) submitted to the TSOs has been used as a basis for this demand assessment report. The non-binding demand indications (for both a) and b) above) are summarized in the following table:

Non-Binding Incremental Capacity Demand Survey 2023, according to Regulatory (EU) 2017/459	
Interconnection Point	Kulata/Sidirokastro
EIC Code	21Z000000000020C
Flow Direction	GR→BG
Request is submitted to other TSOs?	Yes
Additional Information (if any)	-
Conditions	At least one of the requests was linked at DESFA's system (meaning that included point-to-point capacity) *
Current technical capacity, kWh/d	66 576 000
Non-binding demand request [(kWh/d)/y]	
GY 2023-2024	5 000 000
GY 2024-2025	62 120 548
GY 2025-2026	73 120 548
GY 2026-2027	141 470 713
GY 2027-2028	141 470 713
GY 2028-2029	155 920 768
GY 2029-2030	113 320 768
GY 2030-2031	113 320 768
GY 2031-2032	122 770 823
GY 2032-2033	122 770 823
GY 2033-2034	122 770 823
GY 2034-2035	122 770 823
GY 2035-2036	122 770 823
GY 2036-2037	111 770 823
GY 2037-2038	111 770 823
GY 2038-2039	111 770 823
GY 2039-2040	111 770 823

GY 2040-2041	111 770 823
GY 2041-2042	14 520 548
GY 2042-2043	14 520 548

**The only conditionality applicable to some non-binding demand indications received by DESFA, refer to linked commitments. Bulgartransgaz has not received any conditionality applicable to the non-binding indications for the Kulata/Sidirokastro IP.*

B. Demand assessment

The Demand Assessment Phase commenced immediately after the start of the annual yearly capacity auction, as specified in Article 11(4) of CAM NC, and closed maximum 16 weeks after the annual yearly capacity auction in accordance with Article 26 of CAM NC.

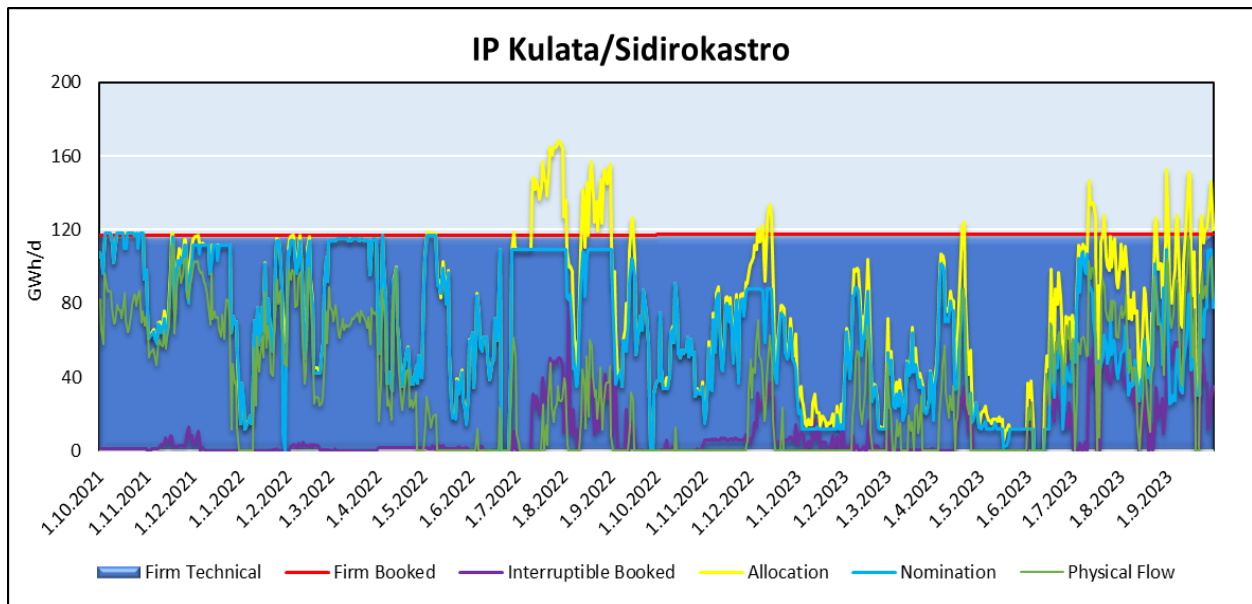
The TSOs gave interested parties the opportunity to submit non-binding demand indications to quantify potential demand for incremental capacity in compliance with the timeline provided by Article 26(2) CAM NC.

i. Historical usage pattern

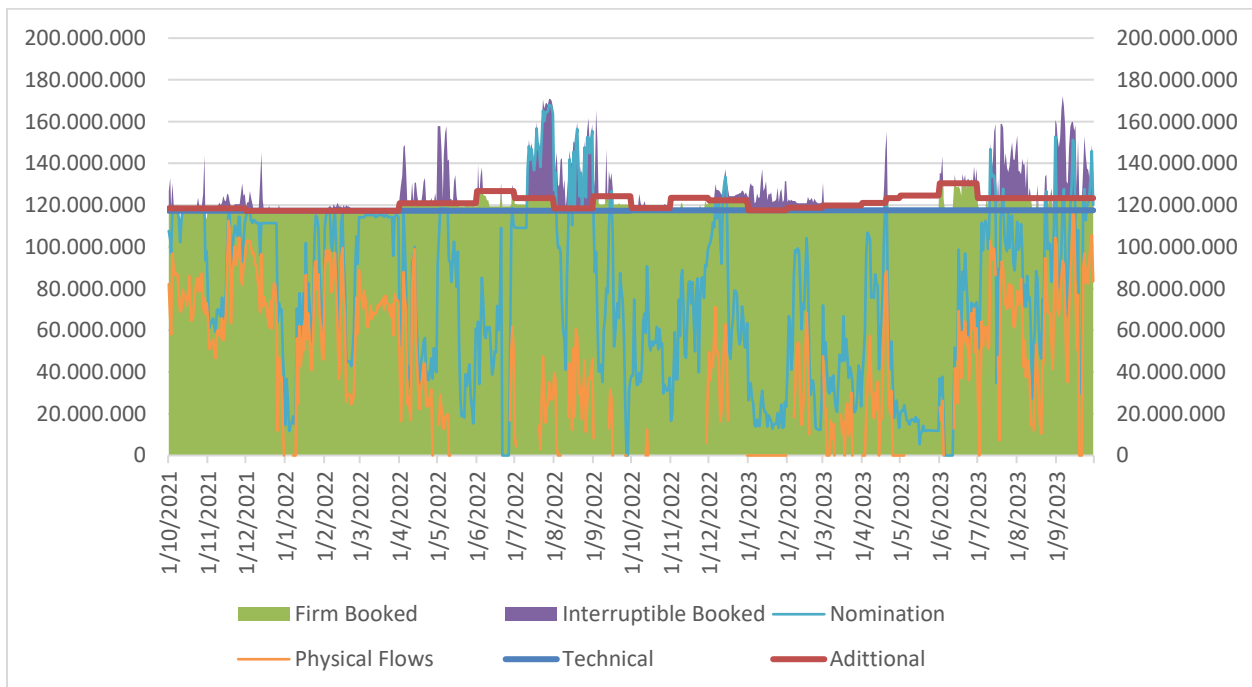
The utilization of the capacity of the IP Kulata/Sidirokastro is presented in the graphs below¹. The technical capacity, the booked capacity, as well as the nominated quantities but also the actual physical flow, for the previous 2 years, are presented.

¹ ENTSOG Transparency Platform data was used for the preparation of the graphs.

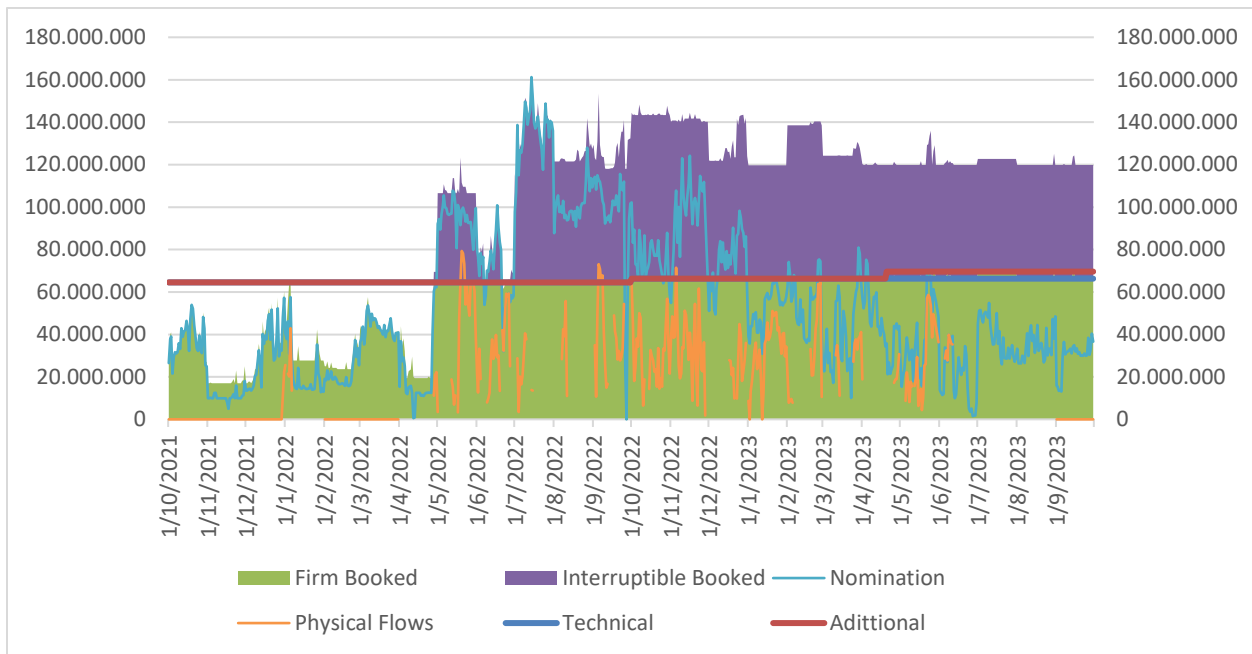
Graph 1: IP Kulata/Sidirokastro exit Bulgaria [kWh/d]



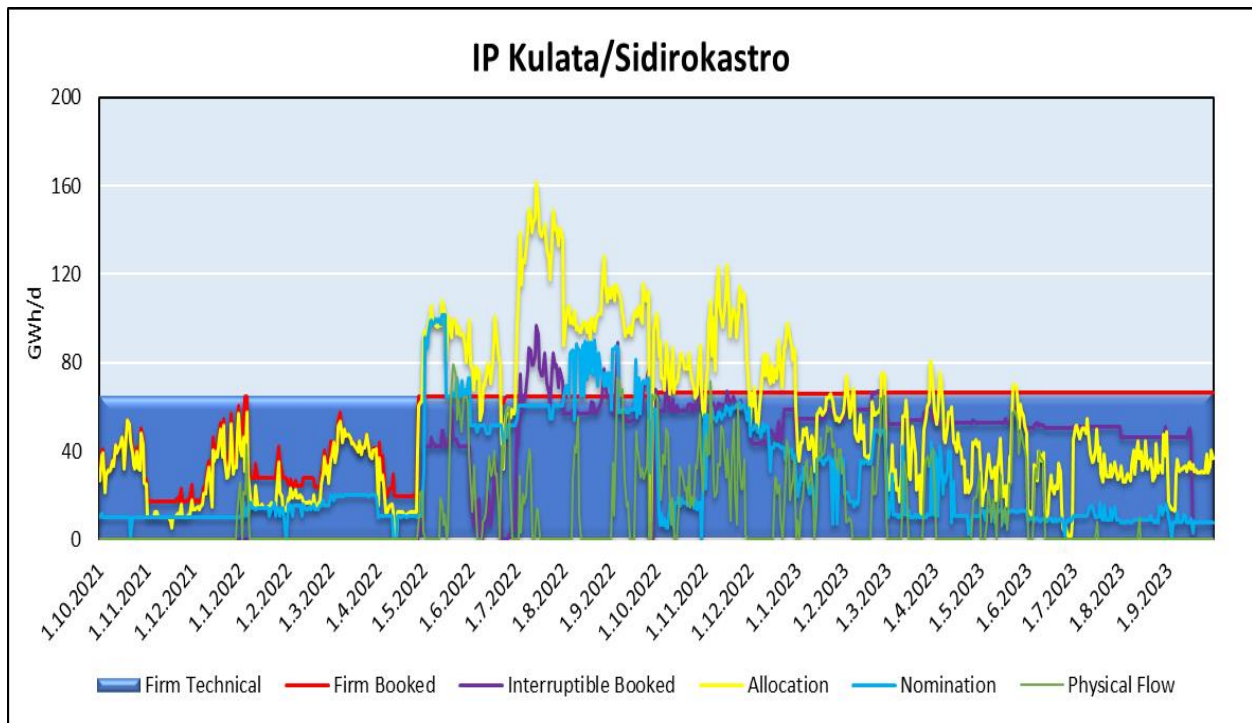
Graph 2: IP Kulata/Sidirokastro entry Greece [kWh/d]



Graph 3: IP Kulata/Sidirokastro exit Greece [kWh/d]













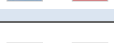




Graph 4: IP Kulata/Sidirokastro entry Bulgaria [kWh/d]


















ii. Results of current annual yearly auction

In the recent annual yearly firm capacity auction taking place on 03.07.2023 for the joint IP Kulata/Sidirokastro the following results have been achieved:

Bulgartransgaz results









Yearly auction for bundled firm capacity from Greece to Bulgaria						
IP name	IP EIC code	Flow direction	Gas year	Offered capacity (kWh/d)	Booked capacity (kWh/d)	Capacity type
Kulata/Sidirokastro	21Z00000000020C		2023/2024	44 418 400	43 754 511	Firm
Kulata/Sidirokastro	21Z00000000020C		2024/2025	54 418 400	33 611 771	Firm
Kulata/Sidirokastro	21Z00000000020C		2025/2026	54 918 400	29 711 771	Firm
Kulata/Sidirokastro	21Z00000000020C		2026/2027	59 918 400	19 711 771	Firm
Kulata/Sidirokastro	21Z00000000020C		2027/2028	59 918 400	19 711 771	Firm
Kulata/Sidirokastro	21Z00000000020C		2028/2029	53 260 800	0	Firm
Kulata/Sidirokastro	21Z00000000020C		2029/2030	53 260 800	0	Firm
Kulata/Sidirokastro	21Z00000000020C		2030/2031	53 260 800	0	Firm
Kulata/Sidirokastro	21Z00000000020C		2031/2032	53 260 800	0	Firm
Kulata/Sidirokastro	21Z00000000020C		2032/2033	53 260 800	0	Firm
Kulata/Sidirokastro	21Z00000000020C		2033/2034	53 260 800	0	Firm
Kulata/Sidirokastro	21Z00000000020C		2034/2035	53 260 800	0	Firm
Kulata/Sidirokastro	21Z00000000020C		2035/2036	53 260 800	0	Firm
Kulata/Sidirokastro	21Z00000000020C		2036/2037	53 260 800	0	Firm
Kulata/Sidirokastro	21Z00000000020C		2037/2038	53 260 800	0	Firm








Yearly auctions for bundled firm capacity from Bulgaria to Greece						
IP name	IP EIC code	Flow direction	Gas year	Offered capacity (kWh/d)	Booked capacity (kWh/d)	Capacity type
Kulata/Sidirokastro	21Z00000000020C		2023/2024	0	0*	Firm
Kulata/Sidirokastro	21Z00000000020C		2024/2025	0	0*	Firm
Kulata/Sidirokastro	21Z00000000020C		2025/2026	0	0*	Firm
Kulata/Sidirokastro	21Z00000000020C		2026/2027	0	0*	Firm
Kulata/Sidirokastro	21Z00000000020C		2027/2028	0	0*	Firm
Kulata/Sidirokastro	21Z00000000020C		2028/2029	0	0*	Firm
Kulata/Sidirokastro	21Z00000000020C		2029/2030	0	0*	Firm
Kulata/Sidirokastro	21Z00000000020C		2030/2031	0	0*	Firm
Kulata/Sidirokastro	21Z00000000020C		2031/2032	96 290 013	0	Firm
Kulata/Sidirokastro	21Z00000000020C		2032/2033	96 290 013	0	Firm
Kulata/Sidirokastro	21Z00000000020C		2033/2034	96 290 013	0	Firm
Kulata/Sidirokastro	21Z00000000020C		2034/2035	96 290 013	0	Firm
Kulata/Sidirokastro	21Z00000000020C		2035/2036	96 290 013	0	Firm
Kulata/Sidirokastro	21Z00000000020C		2036/2037	96 290 013	0	Firm
Kulata/Sidirokastro	21Z00000000020C		2037/2038	96 290 013	0	Firm
















* long-term bookings

DESFA results

In the recent DESFA S.A. annual yearly firm capacity auction that took place on 03.07.2023 for the joint IP Kulata/Sidirokastro the following results have been achieved:

Yearly auction for <u>unbundled</u> firm capacity from Bulgaria to Greece						
IP name	IP EIC code	Flow direction	Gas year	Offered capacity (kWh/d)	Booked capacity (kWh/d)	Capacity type
Kulata/ Sidirokastró	21Z000000000020C		2023/2024	14.367.360	6.849.315	Firm
Kulata/ Sidirokastró	21Z000000000020C		2024/2025	17.367.360	3.000.000	Firm
Kulata/ Sidirokastró	21Z000000000020C		2025/2026	17.367.360	2.000.000	Firm
Kulata/ Sidirokastró	21Z000000000020C		2026/2027	20.572.839	0	Firm
Kulata/ Sidirokastró	21Z000000000020C		2027/2028	20.572.839	0	Firm
Kulata/ Sidirokastró	21Z000000000020C		2028/2029	8.536.588	0	Firm
Kulata/ Sidirokastró	21Z000000000020C		2029/2030	58.536.588	0	Firm
Kulata/ Sidirokastró	21Z000000000020C		2030/2031	96.290.013	0	Firm

Yearly auction for <u>bundled</u> firm capacity from Bulgaria to Greece						
IP name	IP EIC code	Flow direction	Gas year	Offered capacity (kWh/d)	Booked capacity (kWh/d)	Capacity type
Kulata/ Sidirokastró	21Z000000000020C		2031/2032	96.290.013	0	Firm
Kulata/ Sidirokastró	21Z000000000020C		2032/2033	96.290.013	0	Firm
Kulata/ Sidirokastró	21Z000000000020C		2033/2034	96.290.013	0	Firm
Kulata/ Sidirokastró	21Z000000000020C		2034/2035	96.290.013	0	Firm
Kulata/ Sidirokastró	21Z000000000020C		2035/2036	96.290.013	0	Firm
Kulata/ Sidirokastró	21Z000000000020C		2036/2037	96.290.013	0	Firm
Kulata/ Sidirokastró	21Z000000000020C		2037/2038	96.290.013	0	Firm

Yearly auction for bundled firm capacity from Greece to Bulgaria						
IP name	IP EIC code	Flow direction	Gas year	Offered capacity (kWh/d)	Booked capacity (kWh/d)	Capacity type
<i>Kulata/Sidirokastro</i>	21Z00000000020C		2023/2024	44.418.400	43.754.511	<i>Firm</i>
<i>Kulata/Sidirokastro</i>	21Z00000000020C		2024/2025	54.418.400	28.111.771	<i>Firm</i>
<i>Kulata/Sidirokastro</i>	21Z00000000020C		2025/2026	54.418.400	24.711.771	<i>Firm</i>
<i>Kulata/Sidirokastro</i>	21Z00000000020C		2026/2027	59.918.400	19.711.771	<i>Firm</i>
<i>Kulata/Sidirokastro</i>	21Z00000000020C		2027/2028	59.918.400	19.711.771	<i>Firm</i>
<i>Kulata/Sidirokastro</i>	21Z00000000020C		2028/2029	53.260.800	0	<i>Firm</i>
<i>Kulata/Sidirokastro</i>	21Z00000000020C		2029/2030	53.260.800	0	<i>Firm</i>
<i>Kulata/Sidirokastro</i>	21Z00000000020C		2030/2031	53.260.800	0	<i>Firm</i>
<i>Kulata/Sidirokastro</i>	21Z00000000020C		2031/2032	53.260.800	0	<i>Firm</i>
<i>Kulata/Sidirokastro</i>	21Z00000000020C		2032/2033	53.260.800	0	<i>Firm</i>
<i>Kulata/Sidirokastro</i>	21Z00000000020C		2033/2034	53.260.800	0	<i>Firm</i>
<i>Kulata/Sidirokastro</i>	21Z00000000020C		2034/2035	53.260.800	0	<i>Firm</i>
<i>Kulata/Sidirokastro</i>	21Z00000000020C		2035/2036	53.260.800	0	<i>Firm</i>
<i>Kulata/Sidirokastro</i>	21Z00000000020C		2036/2037	53.260.800	0	<i>Firm</i>
<i>Kulata/Sidirokastro</i>	21Z00000000020C		2037/2038	53.260.800	0	<i>Firm</i>

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

The amount and direction of the demand for incremental capacity, at Kulata/Sidirokastro IP,

considered during the present procedure is the one presented in paragraph A. “Non-binding Demand Indications”.

C. Relations to GRIPS, TYNDP, NDPs

- BULGARTRANGAZ

A project idea by Bulgartransgaz in early phase of development (no FID taken) has been identified and included in its most recent TYNDP 2023-2032 for a project on the Bulgarian side of IP Kulata/Sidirokastro leading to increasing the gas transmission capacity in direction from Greece to Bulgaria.

- DESFA

DESFA has not included in the most recent TYDP 2023-32 any project related to the offer of capacity at Kulata/Sidirokastro IP.

D. Conclusion for the (non)-initiation of an incremental capacity project/process

Over the years, Bulgartransgaz and DESFA successfully cooperated and implemented a number of joint activities to maximize the capacities of the IP. The TSOs deem all other economically efficient means for maximizing the availability of existing capacity are exhausted.

According to the assessment result of the non-binding demand indications Bulgartransgaz and DESFA will proceed to the next phase of the Incremental Capacity process and open the Coordinated Design Phase, the day after the publication of this Demand Assessment Report, in order to offer bundled incremental capacity products at IP Kulata/Sidirokastro.

During the Coordinated Design Phase, the TSOs deem it necessary to conduct further technical studies to investigate, document and evaluate the preliminary technical solutions, costs and schedules for development options.

The output of the technical studies and of the coordinated actions taken by Bulgartransgaz and DESFA during the Coordinated Design phase, including specific expansion thresholds, provisional costs and timelines will be included in the draft Project Proposal for public consultation.

E. Provisional timeline

The involved TSOs have planned to conduct the technical studies and the consultation of the draft Project Proposal according to the following provisional timeline:

Activity	Expected start	Expected end	Expected duration
<i>Technical studies for incremental capacity projects</i>	<i>From the publication of this DAR</i>	<i>Before 15/01/2024</i>	<i><12 weeks</i>
<i>Public Consultation on draft Project Proposal</i>	<i>15/01/2024</i>	<i>15/02/2024</i>	<i>1 month</i>

The above-stated timeline has a provisional character and is therefore subject to change. Following the end of the public consultation and further refinements of the draft Project Proposal, the TSOs will submit the draft Project Proposal to the relevant NRA(s) for coordinated approvals. In case of positive decision of the NRA(s), the binding phase will start, and a notice will be published on the TSOs' website at least 2 months before any binding auctions. The process for the binding phase will be detailed in the draft Project Proposal, including indicative schedule information building on the studies from the Coordinated Design phase. The TSOs intend to hold the binding phase on 1st of July 2024.

F. Fees

Neither Bulgartransgaz, nor DESFA introduced a fee for the evaluation and processing of non-binding demand indications.

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