

Demand assessment report for incremental capacity between *Bulgaria* and *Greece*

2019-10-21

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

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A. Non-binding Demand indications

Currently Bulgaria and Greece have one interconnection point (IP) – Kulata/Sidirokastro connecting Bulgartransgaz EAD (BG) gas transmission network for transit transmission and the gas transmission system operated by DESFA (GR), located on the Bulgarian-Greek border in the area of Kulata/Sidirokastro.

Historically this interconnection entry-exit point (IP) Kulata/Sidirokastro serves mainly as an entry point enabling Greece to receive natural gas, i.e. the physical flow is more often in the direction from Bulgaria to Greece. During the January 2009 crisis, physical reverse flow to Bulgaria was carried out through this interconnection. As a result of version 1 and version 2 of the Interconnection Agreement (IA) for IP Kulata/Sidirokastro signed between Bulgartransgaz EAD and DESFA S.A., an alternative possibility has been provided for natural gas import in Bulgaria through reverse flow supplies on commercial basis e.g. backhaul (version 1) and physical reverse transmission in reverse direction (version 2), through the reverse connection of the modernized CS Petrich. As of 1 April 2019 the reverse flow capacity has been increased to 46 535 MWh/d, and in addition a capacity on interruptible basis is available.

The involved TSOs, Bulgartransgaz EAD (BG) and DESFA S.A. (GR) have received, within the 2019 Incremental Capacity process, one non-binding demand indication for firm capacity at the interconnection points between the entry-exit system of Bulgartransgaz EAD and the entry-exit system of DESFA S.A. for the period 2019/2020 – 2023/2024.

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 1 July 2019 in accordance with REGULATION EC 459/2017.

One demand indication¹ by a network user for the period 2019/2020 – 2023/2024.

¹ *The demand indication has been received by DESFA S.A. within the 8 weeks period after the start of the annual yearly auction. Due to a technical issue the same demand indication has been sent by the network user and received by Bulgartransgaz EAD later than 8 weeks after the start of the annual yearly auction. In line with paragraphs 6 and 7 of Article 26 of COMMISSION REGULATION (EU) 2017/459 the operators took the common decision to consider this non-binding demand indication in the ongoing market demand assessment.*

- b) non-binding demand indications received later than 8 weeks after the start of the annual yearly capacity auction on 1 July 2019, which would have been considered in the current incremental capacity cycle.

As per item A. a) above, one (1) non-binding demand indication for the period 2019/2020 – 2023/2024, which has been used as a basis for this demand assessment:

| Non-Binding Incremental Capacity Demand Survey 2019 according to Regulatory (EU) 2017/459 | |
|--|----------------------------|
| Interconnection Point | Kulata/Sidirokastro |
| EIC Code | 21Z000000000020C |
| Flow Direction | GR→BG |
| Request is submitted to other TSOs [yes, TSO name] or [no] | Yes, BTG and DESFA |
| Additional Information (if any) | |
| Conditions*[please indicate the letter(s) a) to c) and describe the conditions in more detail below] | |
| Current technical capacity, kWh/d | 46 535 000 |
| 2019/2020 | 14 452 054 |
| 2020/2021 | 14 452 054 |
| 2021/2022 | 14 452 054 |
| 2022/2023 | 14 452 054 |
| 2023/2024 | 14 452 054 |

B. Demand assessment

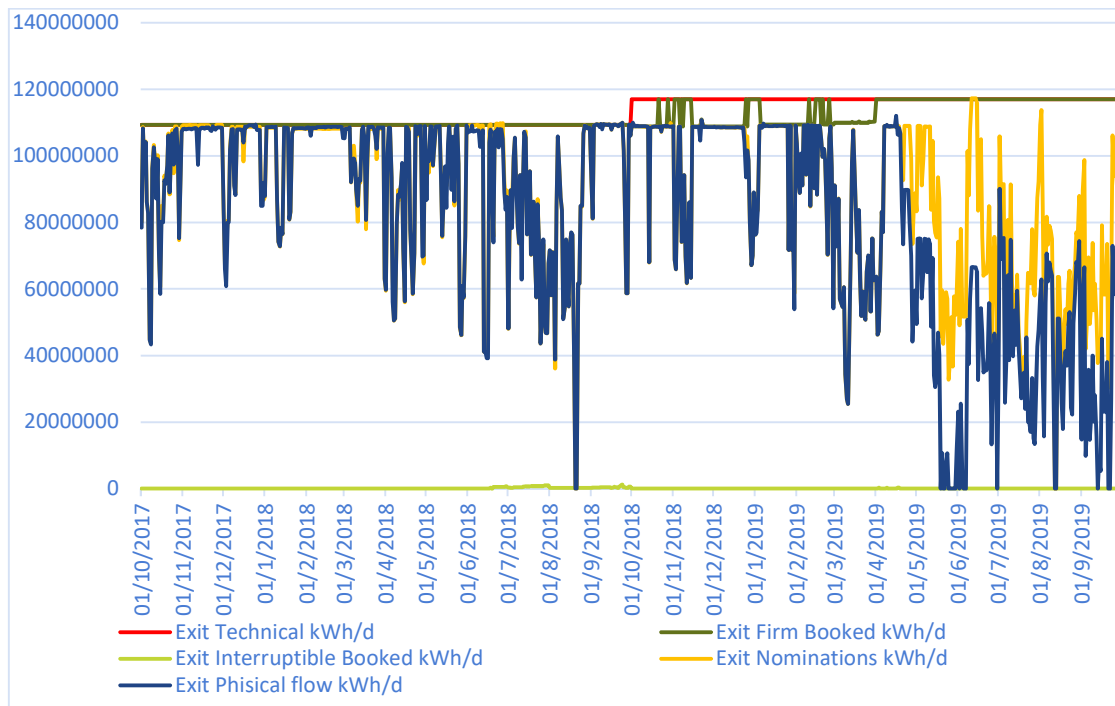
i. Historical usage pattern

The utilisation of the technical capacity is presented in the chart below by comparing the technical capacity with the booked capacity, the allocated “commercial” flow and the physical flow for the past 2 years at the concerned interconnection point.

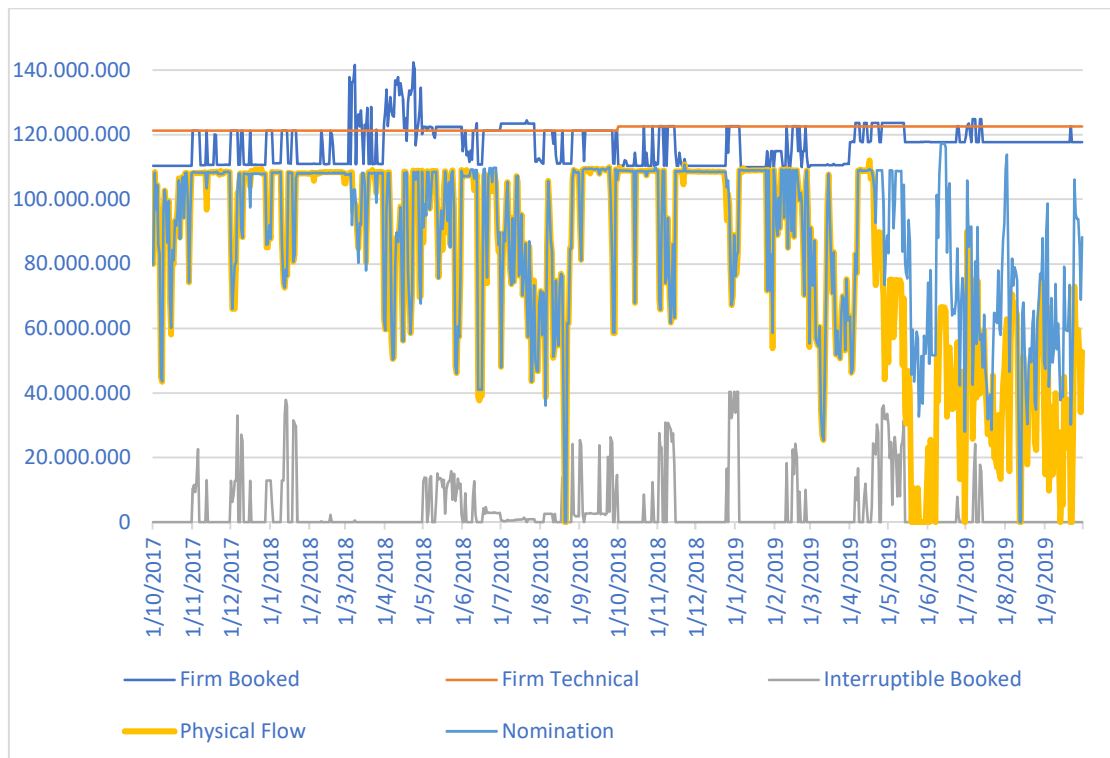
i.1. Transparency Platform data:

According to ENTSOG Guidelines included in the DAR Template, operational TP data is used for the following Graphs:

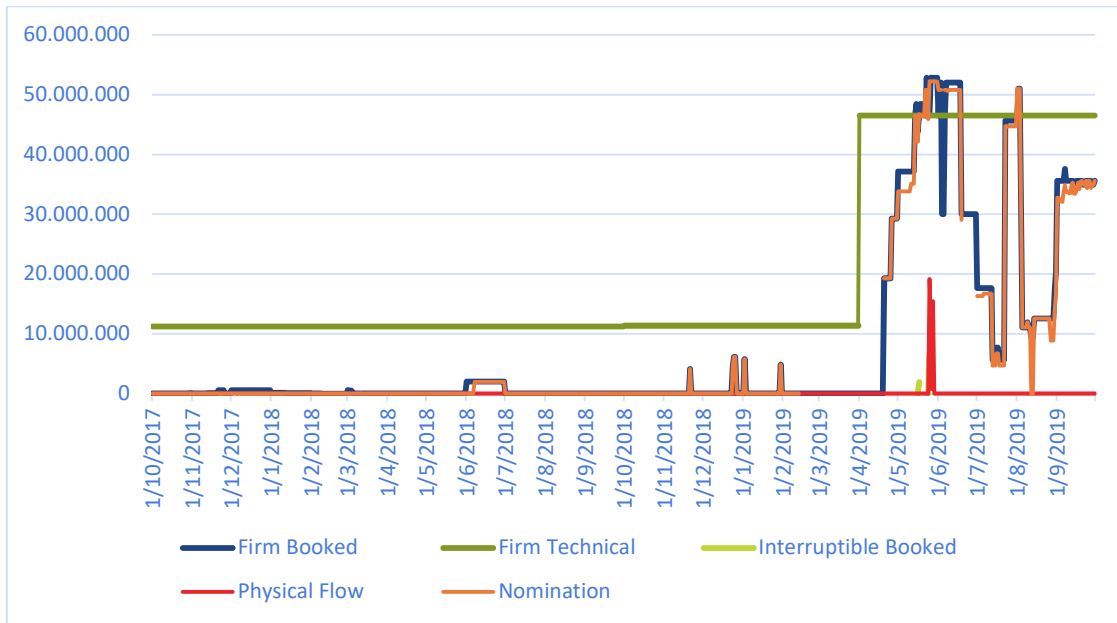
Graph 1: IP Kulata/Sidirokastro **exit Bulgaria** [kWh/d]



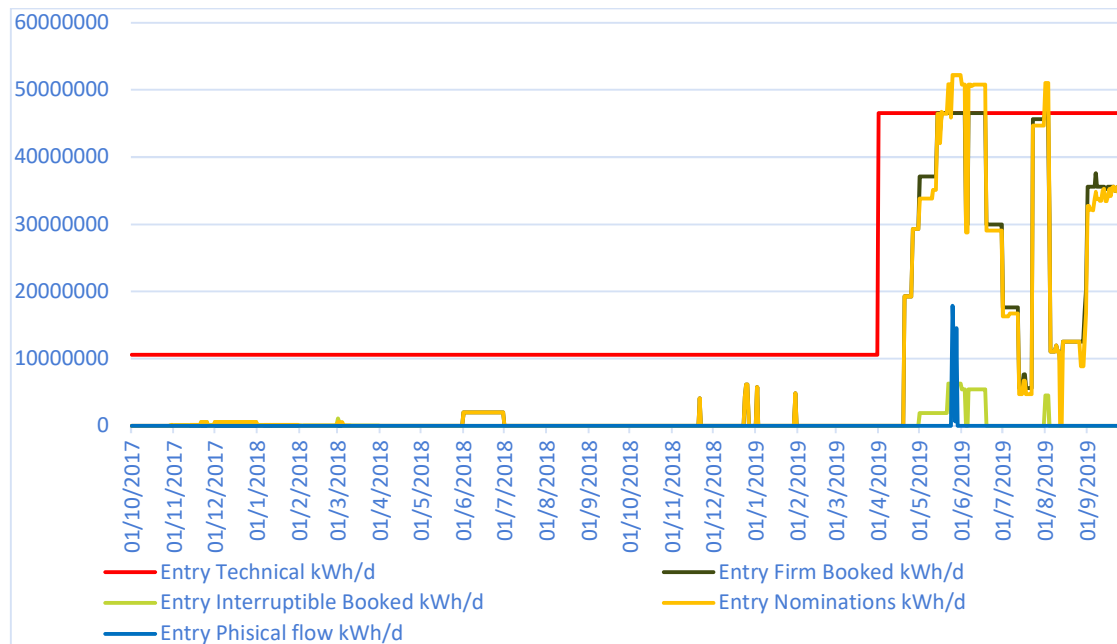
Graph 2: IP Kulata/Sidirokastro **entry Greece** [kWh/d]



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 01.07.2019 for the joint IP Kulata/Sidirokastro the following results have been achieved:

ii. 1. Bulgartransgaz results of current annual yearly auction - bundled firm capacity yearly auction from Greece to Bulgaria and from Bulgaria to Greece

| Interconnection point name | Interconnection point EIC | Flow direction | Gas year | Offered capacity Amount, kWh/d | Booked capacity Amount, kWh/d | Capacity type |
|----------------------------|---------------------------|-----------------------------|------------------|--------------------------------|-------------------------------|---------------|
| <i>Kulata/Sidirokastro</i> | 21Z000000000020C | <i>Exit GR Entry BG</i> | <i>2019/2020</i> | 41 881 500 | 0 | Firm |
| <i>Kulata/Sidirokastro</i> | 21Z000000000020C | <i>Exit BG Entry GR</i> | <i>2019/2020</i> | 0 | 0 | Firm |

In the recent Bulgartransgaz EAD annual yearly interruptible capacity auction taking place on 15.07.2019 for the joint IP Kulata/Sidirokastro the following results have been achieved:

ii. 2. Bulgartransgaz results of annual unbundled interruptible capacity yearly auction from Bulgaria to Greece and from Greece to Bulgaria

| Interconnection point name | Interconnection point EIC | Flow direction | Gas year | Offered capacity Amount kWh/d | Booked capacity Amount kWh/d | Capacity type |
|----------------------------|---------------------------|-----------------------------|------------------|-------------------------------|------------------------------|---------------|
| <i>Kulata/Sidirokastro</i> | 21Z000000000020C | <i>Exit BG Entry GR</i> | <i>2019/2020</i> | 0 | 0 | Interruptible |
| <i>Kulata/Sidirokastro</i> | 21Z000000000020C | <i>Exit GR Entry BG</i> | <i>2019/2020</i> | 0 | 0 | Interruptible |

In the recent DESFA S.A. annual yearly firm capacity auction that took place on 01.07.2019 for the joint IP Kulata/Sidirokastro the following results have been achieved:

ii. 3. DESFA results of current annual unbundled firm capacity yearly auction from Bulgaria to Greece

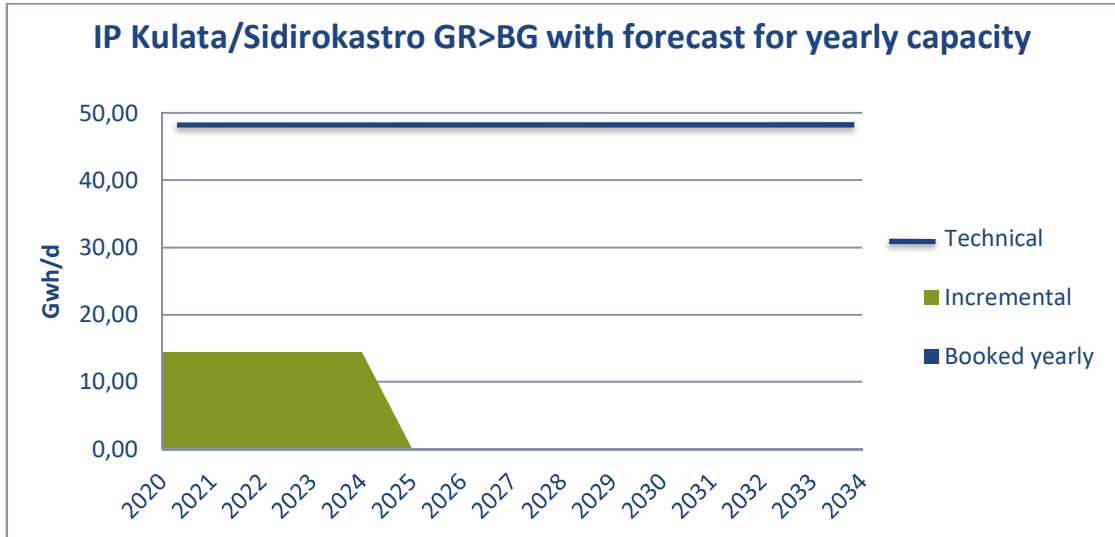
| Interconnection Point name | Interconnection point EIC | Flow direction | Gas year | Offered capacity Amount, kWh/d | Booked capacity Amount, kWh/d | Capacity type |
|----------------------------|---------------------------|-----------------------------|------------------|--------------------------------|-------------------------------|---------------|
| <i>Kulata/Sidirokastro</i> | <i>21Z00000000020C</i> | <i>Exit BG Entry GR</i> | <i>2019/2020</i> | <i>7.722.000</i> | <i>6.615.000</i> | <i>Firm</i> |

ii. 4. DESFA results of current annual yearly auction - bundled firm capacity yearly auction from Greece to Bulgaria

| Interconnection Point name | Interconnection point EIC | Flow direction | Gas year | Offered capacity Amount, kWh/d | Booked capacity Amount, kWh/d | Capacity type |
|----------------------------|---------------------------|-----------------------------|------------------|--------------------------------|-------------------------------|---------------|
| <i>Kulata/Sidirokastro</i> | <i>21Z00000000020C</i> | <i>Exit GR Entry BG</i> | <i>2019/2020</i> | <i>41.881.500</i> | <i>0</i> | <i>Firm</i> |

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

The expected demand level for incremental capacity at the interconnection points between the entry-exit system of Bulgartransgaz EAD and the entry-exit system of DESFA S.A. for the future period is in the direction from Greece to Bulgaria and amounts to 14 452 054 kWh/d, as presented in chapter [0A](#).



The historical usage of the concerned interconnection point as well as the available capacity on firm or interruptible basis (i.e. technical and / or interruptible capacity which is not yet booked in the long term) for the requested period shows that the existing capacity is currently sufficient to cover the need indicated for incremental capacity in the period before the start of the next Incremental process (i.e. 2021), taking into account the demand indicators received and also the possibility to use CMP procedures if needed.

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

The assessment result of the non-binding demand indications and the historical usage patterns indicated that no demand levels for incremental capacity need to be developed, therefore no incremental capacity project will be initiated, resulting from the current demand assessment procedure.

Based on the aforementioned decision, no technical studies for incremental capacity projects will be conducted.

D. Fees

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

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