

**Demand assessment report
for incremental capacity
between *Hungary* and *Serbia***

– External document for publication –

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

FGSZ Ltd.

JP SRBIJAGAS

Hungary, Siófok 8600 Tanácsház u. 5.

Serbia, Novi Sad 21000 Narodnog fronta 12

General contact information

General contact information

email: info@fgsz.hu

email: operatori.sistema.ns@srbijagas.com

telephone: +36 84 505 999

telephone: +381 21 481 2500

fax: + 381 21 481 2559

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A. Non-binding Demand indications

Kiskundorozsma IP operates between Hungarian and Serbian high-pressure transmission systems with physical flow direction currently from Hungary toward Serbia (with current capacity 5,919,371 kWh/h/year).

FGSZ Ltd. received non-binding indicative capacity demand in both existing HU>SRB and under-study SRB>HU directions.

Srbijagas received non-binding indicative capacity demand in under-study SRB>HU directions only.

Kiskundorozsma IP is non-EU cross border point. The adjacent TSOs agreed to conduct market survey on the incremental capacity.

The application of demand assessment process for Kiskundorozsma IP does not result necessary and automatically application of CAM NC process by Parties. TSOs will consult with NRAs about capacity booking process.

The following **aggregated non-binding indicative demand** for firm capacity have been used as a basis for this demand assessment:

a. Indications received by FGSZ Ltd.:

From [entry-exit system name] “EXIT CAPACITY”	To [entry-exit system name] “ENTRY CAPACITY”	Gas year	Amount (kWh/h)/y**	Request is submitted to other TSOs [yes, TSO] or [no] (detailed information shall be provided below)	Period when Demand Indication was received*	Additional Information (e.g. type of capacity, if different from bundled firm freely allocable)
JP SRBIJAGAS	FGSZ Ltd.	2018/19	0	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2019/20	12,129,000	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2020/21	12,129,000	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2021/22	14,368,936	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2022/23	14,368,936	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2023/24	14,368,936	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2024/25	14,368,936	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2025/26	14,368,936	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2026/27	14,368,936	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2027/28	14,368,936	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2028/29	14,368,936	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2029/30	14,368,936	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2030/31	14,368,936	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2031/32	14,368,936	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2032/33	14,368,936	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2033/34	14,368,936	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2034/35	14,368,936	Yes	2	n/a

From [entry-exit system name] “EXIT CAPACITY”	To [entry-exit system name] “ENTRY CAPACITY”	Gas year	Amount (kWh/h)/y	Request is submitted to other TSOs [yes, TSO] or [no] (detailed information shall be provided below)	Period when Demand Indication was received*	Additional Information (e.g. type of capacity, if different from bundled firm freely allocable)
FGSZ Ltd.	JP SRBIJAGAS	2018/19	120,000	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2019/20	150,000	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2020/21	150,000	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2021/22	150,000	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2022/23	150,000	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2023/24	150,000	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2024/25	150,000	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2025/26	150,000	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2026/27	150,000	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2027/28	150,000	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2028/29	150,000	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2029/30	150,000	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2030/31	150,000	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2031/32	150,000	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2032/33	150,000	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2033/34	150,000	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2034/35	150,000	No	2	n/a

b. Indications received by JP SRBIJAGAS:

From [entry-exit system name] “EXIT CAPACITY”	To [entry-exit system name] “ENTRY CAPACITY”	Gas year	Amount (kWh/h)/y**	Request is submitted to other TSOs [yes, TSO] or [no] (detailed information shall be provided below)	Period when Demand Indication was received*	Additional Information (e.g. type of capacity, if different from bundled firm freely allocable)
JP SRBIJAGAS	FGSZ Ltd.	2018/19	0	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2019/20	12,129,000	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2020/21	12,129,000	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2021/22	12,129,000	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2022/23	12,129,000	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2023/24	12,129,000	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2024/25	12,129,000	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2025/26	12,129,000	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2026/27	12,129,000	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2027/28	12,129,000	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2028/29	12,129,000	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2029/30	12,129,000	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2030/31	12,129,000	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2031/32	12,129,000	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2032/33	12,129,000	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2033/34	12,129,000	Yes	2	n/a
JP SRBIJAGAS	FGSZ Ltd.	2034/35	12,129,000	Yes	2	n/a

From [entry-exit system name] “EXIT CAPACITY”	To [entry-exit system name] “ENTRY CAPACITY”	Gas year	Amount (kWh/h)/y	Request is submitted to other TSOs [yes, TSO] or [no] (detailed information shall be provided below)	Period when Demand Indication was received*	Additional Information (e.g. type of capacity, if different from bundled firm freely allocable)
FGSZ Ltd.	JP SRBIJAGAS	2018/19	0	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2019/20	0	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2020/21	0	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2021/22	0	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2022/23	0	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2023/24	0	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2024/25	0	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2025/26	0	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2026/27	0	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2027/28	0	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2028/29	0	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2029/30	0	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2030/31	0	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2031/32	0	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2032/33	0	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2033/34	0	No	2	n/a
FGSZ Ltd.	JP SRBIJAGAS	2034/35	0	No	2	n/a

* 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).

There was **no condition** attached by the network users to **non-binding demand indications** neither in FGSZ's system nor in Srbija-gas's system.

**capacity data was indicated with GCV value at 25/20°C reference condition, indications during the design phase will be used with GCV (25/0°C).

B. Demand assessment

The assessment concluded that the expected firm capacity demand in HU>SRB flow direction at Kiskundorozsma IP 150,000 kWh/h/year. Existing capacity of Kiskundorozsma IP (HU>SRB) 5,919,371 (kWh/h)/year therefore there is no need to increment capacity in this direction.

On Kiskundorozsma IP for SRB>HU flow direction (under study) after having applied the lesser rule the applied demand on both upstream and downstream operator sides is 12,129,000 kWh/h/y.

The eventual incremental capacity project necessary to cover this demand is neither part of the Hungarian National Development Proposal 2016-2025 nor ENTSG's TYNDP 2017 document.

Provided that sufficient quantity of natural gas arrives from Bulgaria or any other downstream system to Serbia this incremented bidirectional capacity at Kiskundorozsma could help to improve the supply situation if transmission through Ukraine would cease or decrease and the required volumes could be transmitted from direction of Serbia. Gases entering Hungary at Kiskundorozsma (SRB>HU) direction could be delivered further toward the neighbouring countries such as Croatia, Ukraine, Slovakia, Romania across the already existing and in future constructed IPs.

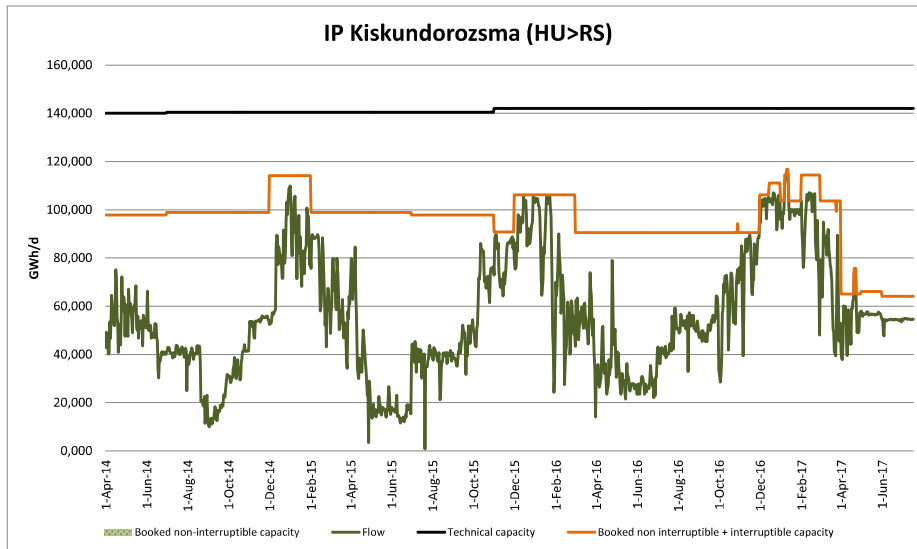
During the design phase TSOs will study and determine the necessary developments to provide requested capacity.

Firm yearly capacity linking the concerned transmission systems shall be made available to NUs via capacity allocation mechanism approved by the relevant NRAs

Subject to NRAs approval yearly capacity products may be offered up to 20 years ahead.

i. Historical usage pattern

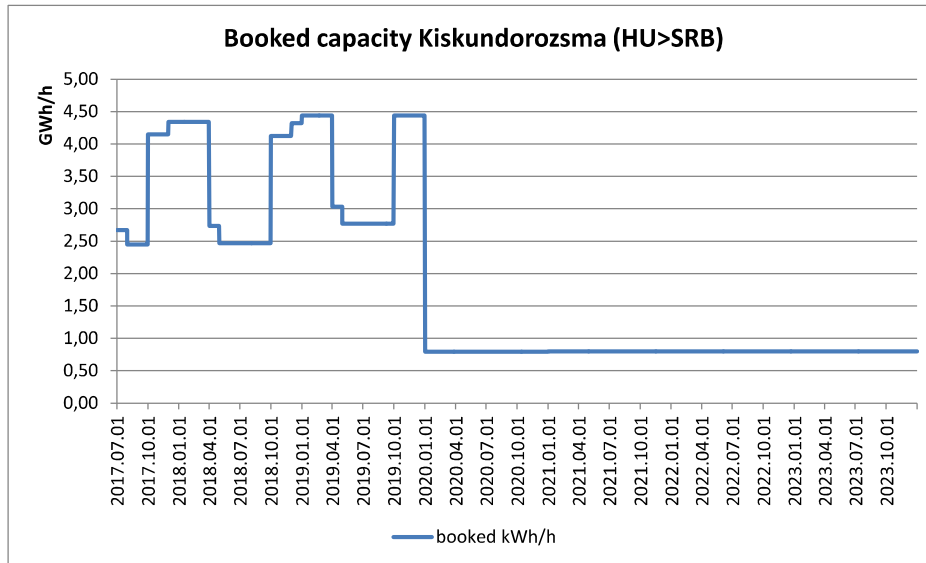
Historical usage pattern for Kiskundorozsma IP (HU>SRB direction) shown in the chart below:



Kiskundorozsma IP (SRB>HU direction) is not functional yet and needs further investments to operate.

ii. Results of current annual yearly auction

Please see below chart on booked capacities on Kiskundorozsma IP in direction Hungary to Serbia:



iii. Relations to GRIPS, TYNDP, NDPs

FGSZ Ltd. and JP Srbijagas have not studied necessary infrastructure development project for HU>SRB and SRB>HU flow directions at Kiskundorozsma IP as there was no incremental capacity demand so far.

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

Start Date	End Date	Description
27.07.2017		Start of design phase
28.07.2017	18.11.2017	Technical studies
19.10.2017	18.11.2017	Public consultation
02.07.2018		Annual yearly auction for incremental capacity
01.10.2022		Predicted availability of capacity

Technical studies for incremental capacity projects will be conducted for IP Kiskundorozsma (SRB>HU direction) for expected level of 12,129,000 kWh/h/year.

FGSZ Ltd. and JP Srbijagas are only affected TSOs by the incremental project on either side of the IP.

D. Provisional timeline

Commission for incremental capacity project Kiskundorozsma IP (direction SRB>HU) is expected by 01.10.2022.

E. Fees

For the incremental capacity cycle addressed by this report, involved TSOs did not introduce a fee for the evaluation and processing of non-binding demand indications.

F. Contact information

FGSZ Ltd.	JP "SRBIJAGAS" Novi Sad
Sándor Bogoly	Bojan Kaćanski
Head of Product and Service Management	Manager System Operator-TSO
System Operation and Capacity Trade	System Operation
telephone: +36-84-505-202	telephone: +381-21-481-1169
mobile: +36-20-944-0706	fax: +381-21-481-2559
e-mail: sbogoly@fgsz.hu	e-mail: bojan.kacanski@srbijagas.com