conexus
BALTIC GRID
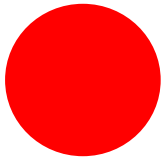
Commercial Division
IT Department

MARKET SEMINAR

FEB 5, 2021

AGENDA

- Communication to market

- Inčukalns underground storage withdrawal capacity congestion management

- Information publication:
  - Commercial data
  - Physical flows

- Q & A

SEMINAR WILL BE RECORDED

conexus
BALTIC GRID

COMMUNICATION

NEW APPROACH

TRANSPARENCY IMPROVEMENT

COMMUNICATION TO MARKET

If market participant or applicant addresses a question directly to Conexus (e.g. via e-mail, phone conversation, signed letter) in relation to the interpretation or application of:

1) the market rules; or
2) the transparency/inside information made already public,

Conexus provides the answer on Conexus website for overall market transparency purposes.

Answer will be also sent directly to market participant or applicant

CONGESTION

REGULATION

- 58. If the system operator detects a physical capacity congestion by 15:00 on the gas day D-1:
  - 58.1 during the withdrawal of natural gas from the storage facility, the system operator shall, within the framework of congestion management, allocate the natural gas withdrawal capacity among the system users by prioritising the bundled capacity product and the two-year bundled capacity product and in **proportion to their booked storage capacity**, first providing the system user which supplies natural gas to protected customers and only in the amount natural gas to be provided to protected customers;

- 59. If the system operator detects a physical capacity congestion after 15:00 on the gas day D1:
  - 59.1. during the withdrawal of natural gas from the storage facility, the system operator shall, within the framework of congestion management, allocate the natural gas withdrawal capacity among the system users **in the order of receipt of trade notifications** and by prioritising the bundled capacity product and the two-year bundled capacity product indicated in the trade notification, first providing the system user which supplies natural gas to protected customers and only in the amount of natural gas to be provided to protected customers;

CONGESTION

NU – NETWORK USER

MWDC - MINIMUM (GUARANTEED) WITHDRAWAL DAILY CAPACITY

IPGK1YP, IPGK2YP – BUNDLED CAPACITY PRODUCTS

FCFS – FIRST COME FIRST SERVE

EXAMPLE ON NEXT SLIDES

Inčukalns underground storage withdrawal capacity congestion management

- Each NU is entitled to MWDC on each product for gas day D, based on following calculation:
    - *MWDC (product) = (NU booked product capacity / (Total IPGK1YP capacity + Total IPGK2YP capacity)) * daily withdrawal;*
- Nominations have to be received before D-1 15:00 EET for each product;
- Confirmed amount will be calculated as:
    - <u>if product nomination is less or equal</u> than MWDC– all nominated amount will be confirmed even in congestion situation.
    - <u>if product nomination is higher</u> than MWDC– all nominated amount in congestion situation will be confirmed either in full or partially between MWDC and nominated amount using pro-rata allocation between all NU nominations higher than their corresponding MWDC by proportion between these NU based on nominated product booked amount proportion between these NUs.
- After D-1 15:00 all nominations will be processed on FCFS basis only when there is available withdrawal capacity.

Inčukalns congestion management – MWDC calculation

EXAMPLE

NU – NETWORK USER

MWDC - MINIMUM (GUARANTEED) WITHDRAWAL DAILY CAPACITY

IPGK1YP, IPGK2YP – BUNDLED CAPACITY PRODUCTS

FCFS – FIRST COME FIRST SERVE

Total booked storage capacity values (in kWh):
Two year bundled capacity product (IPGK2YP)   5 226 000 001
Bundled capacity product (IPGK1YP)   16 293 699 999
Daily withdrawal capacity (kWh/d)   196 700 000

NUs with booked storage capacity:

NU	Product	Booked	MWDC calculation
NU1	IPGK1YP	1 000 000 000	9 140 462
NU1	IPGK2YP	2 000 000 000	18 280 924
NU2	IPGK1YP	500 000 000	4 570 231
NU3	IPGK1YP	500 000 000	4 570 231
NU3	IPGK2YP	200 000 000	1 828 092

NU1 (IPGK1YP) calculation example –

$$MWDC = 196\ 700\ 000 * \frac{1\ 000\ 000\ 000}{(5\ 226\ 000\ 001 + 16\ 293\ 699\ 999)} = \underline{9\ 140\ 462}$$

EXAMPLE

NU – NETWORK USER

MWDC - MINIMUM (GUARANTEED) WITHDRAWAL DAILY CAPACITY

IPGK1YP, IPGK2YP – BUNDLED CAPACITY PRODUCTS

FCFS – FIRST COME FIRST SERVE

Daily withdrawal capacity (kWh/d)   **196 700 000**

NUs with booked storage capacity:

NU	Product	Booked	MWDC	Nominated	Confirmed
NU1	IPGK1YP	1 000 000 000	9 140 462	100 000 000	93 850 000
NU1	IPGK2YP	2 000 000 000	18 280 924	9 000 000	9 000 000
NU2	IPGK1YP	500 000 000	4 570 231	150 000 000	46 925 000
NU3	IPGK1YP	500 000 000	4 570 231	50 000 000	46 925 000
NU3	IPGK2YP	200 000 000	1 828 092	--	-- (0)

NU1 (IPGK1YP) confirmed value calculation example –

$$\text{Confirmed} = 9\ 140\ 462 + \frac{1\ 000\ 000\ 000}{(1\ 000\ 000\ 000 + 2*500\ 000\ 000)}*$$

$$* (196\ 700\ 000 - 9\ 140\ 462 - 9\ 000\ 000 - 2*4\ 570\ 231)$$

$$\text{Confirmed} = 9\ 140\ 462 + 0.5 * 169\ 419\ 076 = \underline{93\ 850\ 000}$$

INFORMATION

CAPACITY.CONEXUS.LV

- Transmission and storage data

https://capacity.conexus.lv/?id=156&lang=eng

Incukalns UGS 2020/2021 storage cycle

2020/2021 STORAGE CYCLE		
INČUKALNS UGS CAPACITIES		
Injection season	2020-05-01 until 2020-10-14	on February 3. 2021
Withdrawal season	2020-10-15 until 2021-04-30	kWh
Technical capacity		**21 525 000 000**
Booked products for 2020/2021 storage cycle		21 525 000 000
Two year bundled capacity product (IPGK2YP)		5 226 000 001
Bundled capacity product (IPGK1YP)		16 293 699 999
Market product (IPGKMP)		5 300 000
Current stock in 2019/2020		12 882 886 542
Avaliable capacity for booking 2020/2021		**0**
Unused capacity 2020/2021 from booked		8 642 113 458

2021/2022 STORAGE CYCLE		
INČUKALNS UGS CAPACITIES		
Injection season	2021-05-01 until 2021-10-14	
Withdrawal season	2021-10-15 until 2022-04-30	kWh
Technical capacity (to be reviewed no later than 2021-05-21)		**22 501 688 000**

- Commercial data
- Update before 13:00

INFORMATION

CAPACITY.CONEXUS.LV

- Capacity availability

https://capacity.conexus.lv/?id=160&lang=eng

- Commercial data
- Updated every 5 min

INFORMATION

CAPACITY.CONEXUS.LV

- Inčukalns UGS schedule

https://capacity.conexus.lv/?id=187&lang=eng

IUGS INJECTION AND WITHDRAWAL SCHEDULE

	2021-02-01	2021-04-04
		GENERATE

(R) - Virtual reverse counterflow, flow opposite to physical flow of Inčukalns UGS season.
(BCP) - Bundled Capacity Product.
(BCP2Y) - Bundled Capacity 2 Years Product.
(MP) - Market Product.
Status at: 03.02.2021. 15:00:00. Displayed: 03.02.2021. 15:18:45.

Gas day	IUGS INJECTION			IUGS WITHDRAWAL		
	Maximum, kWh	Nominated, kWh	Available, kWh	Maximum, kWh	Nominated, kWh	Available, kWh
2021-02-01	180 511 204 (R)	0 (BCP) 0 (BCP2Y) 0 (MP)	180 511 204	184 000 000	167 373 204 (BCP) 13 138 000 (BCP2Y) 0 (MP)	3 488 796
2021-02-02	183 780 000 (R)	0 (BCP) 0 (BCP2Y) 0 (MP)	183 780 000	184 000 000	169 642 344 (BCP) 14 137 656 (BCP2Y) 0 (MP)	220 000
2021-02-03	**184 000 000 (R)**	**0 (BCP) 0 (BCP2Y) 0 (MP)**	**184 000 000**	**184 000 000**	**159 777 615 (BCP) 24 222 385 (BCP2Y) 0 (MP)**	**0**
2021-02-04	196 700 000 (R)	0 (BCP) 0 (BCP2Y) 0 (MP)	196 700 000	196 700 000	145 088 383 (BCP) 51 611 617 (BCP2Y) 0 (MP)	0

- Commercial data
- Updated on start of every hour.

INFORMATION

CAPACITY.CONEXUS.LV

- Nominations and Allocations

https://capacity.conexus.lv/?id=164&lang=eng

NOMINATIONS AND ALLOCATIONS		
IPGK Entry ▾	2021-02-01	2021-02-07

GENERATE

x To Excel

Gas day	Nominations, kWh	Allocations, kWh
IPGK ENTRY		
2021-02-01	180 511 204	180 511 204
2021-02-02	183 780 000	183 780 000
2021-02-03	**184 000 000**	**0**
2021-02-04	196 700 000	0
2021-02-05	196 700 000	0
2021-02-06	84 265 000	0
2021-02-07	84 265 000	0

- Commercial data
- Nominations – confirmed nominations, updated at least once per hour
- Allocations - update after gas day from ~11:00 till 15:00

INFORMATION

CAPACITY.CONEXUS.LV

- Capacities actually used

https://capacity.conexus.lv/?id=158&lang=eng

CAPACITIES ACTUALLY USED (FROM 03.04.2017.)

Gas day (begins at 07:00)	Entry/exit point		Used capacity (MWh)
2021-02-02	INČUKALNS UGS	Exit / Injection	0
		Entry / Withdraw	119 174
	KARKSI	Exit to Estonia	35 736
		Entry from Estonia	0
	KIEMENAI	Exit to Lithuania	11 775
		Entry from Lithuania	0
	KORNETI	Exit to Russia	0
	KORNETI (IZBORSK)	Entry from Russia	0
	GRS LATVIA	Exit to Latvia	67 881

REPORT ON CAPACITIES ACTUALLY USED (FROM 03.04.2017.)

Entry/exit point	Time units	From	To
KIEMENAI - Exit to Lithuania ▾	● days ○ months	2021-02-01	2021-02-02

GENERATE REPORT

To Excel

KIEMENAI - EXIT TO LITHUANIA

Gas day	Used capacity MWh
2021-02-01	54 248
2021-02-02	11 775

- Physical flow data
- Update after gas day

THANK YOU!

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