

## Third-Party Access to Gas Storage – Case Study session

# Case study by Energy Regulatory Office in Poland /URE/

Joanna Buzar

Gas Market Unit

Department of Markets Development and Consumer Issues



# Basic information about storage



## ➤ **Gas Storage Poland Sp. z o. o. (GSP)**

- Storage System Operator in Poland (SSO)
- Legal unbundling - GSP is a daughter company under the PGNiG Capital Group (Polish Oil and Gas Company) which owns the gas storage facilities

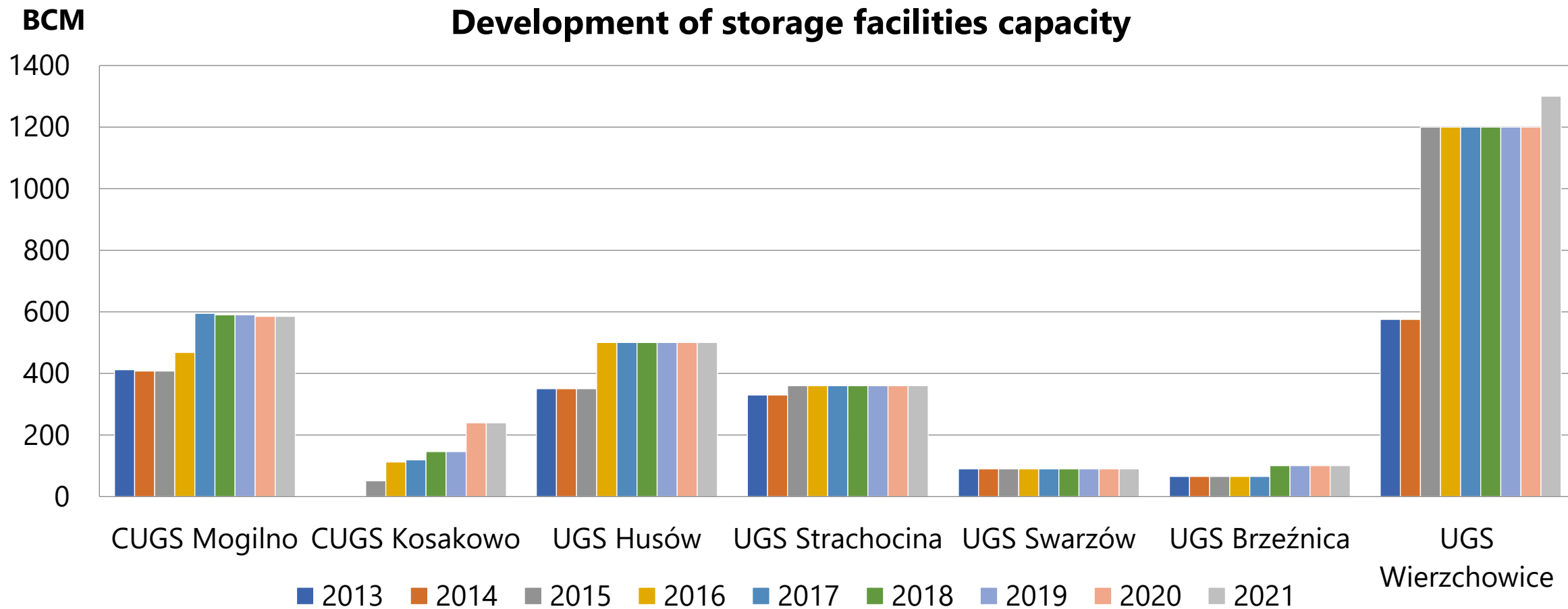
## ➤ **GSP as SSO is particularly responsible for the following tasks:**

- providing safety of storage facilities operation and the execution of contracts with users of these facilities
- ensuring the operation, maintenance and repair of storage facilities and devices in a such a way that guarantees the reliability of their functioning
- ensuring long-term ability of storage facilities in order to meet reasonable demands for gaseous fuels storage, as well as development of storage facilities
- managing capacity of storage facilities
- providing storage services required for the accurate operation of a gas system
- managing gaseous fuels flow directed to and received from storage facilities and maintaining the quality parameters of these fuels
- providing users of the system and operators of other systems with the information regarding terms and conditions of rendering gaseous fuel storage services, including cooperation with interconnected gas systems
- cooperation with other gas system operators or energy companies to ensure reliable and efficient operation of gas systems and to coordinate their development

## ➤ **GSP also deals with the design and construction of underground gas storage facilities in rock salt deposits**

## ➤ **Total underground gas storage capacity – 3,174.8 BCM (35,787.9 GWh) in 7 natural gas storage facilities**

# Basic information about storage



# Basic information about storage

Working capacities of storage facilities at the in 2021

Group of storage facilities (GSF) / Storage facility		BCM	GWh
GSF Kawerna	CUGS Mogilno	824.8	9,190.7
	CUGS Kosakowo		
GSF Sanok	UGS Husów	1,050.0	11,868.2
	UGS Strachocina		
	UGS Swarzędz		
	UGS Brzeźnica		
UGS Wierzchowice		1,300.0	14,729.0



Maximum injection capacities and maximum withdrawal capacities to / from storage facilities in 2021

Group of storage facilities	Maximum injection capacities		Maximum withdrawal capacities	
	[m <sup>3</sup> /h]	[MWh/h]	[m <sup>3</sup> /h]	[MWh/h]
GSF Kawerna	500,000	5,571.00	1,150,000	12,815.00
GSF Sanok	384,667	4,325.42	478,750	5,379.76
USG Wierzchowice	400,000	4,480.00	600,000	6,600.00

# Basic information about storage



## Inventories of storage facilities

Data at the end of the gas day: 19.01.2022 (at 6:00 a.m.)  
 These figures are equivalent to data at the beginning of the next gas day

Inventories of storage facilities every day for each installation and in summary  
<https://ipi.gasstoragepoland.pl/en/menu-en/transparency-template/?page=operational-data/operational-data/operational-data/>

### Inventories of all storage facilities

Inventories of storage facilities at the beginning of gas day

Amount of injected gas

Amount of withdrawal gas

Inventories of storage facilities at the end of gas day



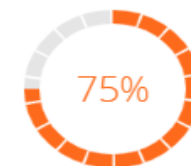
CUGS Kosakowo

27 151.7 [GWh]

0.0 [GWh]

307.4 [GWh]

26 844.3 [GWh]



### GSF Sanok

Inventories of storage facilities at the beginning of gas day

Amount of injected gas

Amount of withdrawal gas

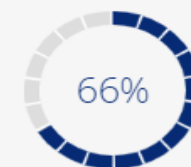
Inventories of storage facilities at the end of gas day

7 908.2 [GWh]

0.0 [GWh]

115.5 [GWh]

7 792.7 [GWh]



### GSF Kawerna

Inventories of storage facilities at the beginning of gas day

Amount of injected gas

Amount of withdrawal gas

Inventories of storage facilities at the end of gas day



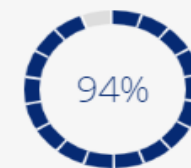
UGS Wierzchowice

8 678.1 [GWh]

0.0 [GWh]

41.2 [GWh]

8 636.9 [GWh]



### UGS Wierzchowice

Inventories of storage facilities at the beginning of gas day

Amount of injected gas

Amount of withdrawal gas

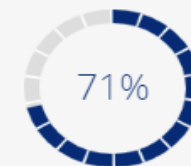
Inventories of storage facilities at the end of gas day

10 565.4 [GWh]

0.0 [GWh]

150.7 [GWh]

10 414.7 [GWh]



# Third-Party Access rules



## Regulated model for access to storage services in Poland

- Tariffs for access to storage services
  - The storage system operator sets a tariff including charges for storage services.
  - The President of ERO approves or rejects the tariff.
- Third-Party Access to the storage facilities rules
  - Until July 3, 2021, the operator of the storage system offered access services to the storage facilities in accordance with the Regulations for the Provision of Storage Services („national storage code”)\*, which was prepared by the SSO on its own. There was no legal requirement to submit to the President of ERO for approval.
  - Pursuant to Art. 23 sec. 5 point 11b of the Energy Law, the President of ERO monitors the functioning of the gas system e.g. in terms of the conditions for the provision of gas fuel storage services, but it does not approve rules for TPA to gas storage
  - On July 3, 2021, an amendment to the Energy Law came into force, which obliges the SSO to prepare the national storage code , consult it with the market and submit it to the President of ERO for approval by way of an administrative decision. SSO has 9 months to do so, i.e. until April 3, 2022.
  - Currently, the President of ERO is waiting for an application from SSO. As of January 21, SSO has not started consultations yet.

# Third-Party Access rules

## ➤ **SSO's activity vs. the Transmission Network Code**

Gas transportation at the interconnection of the Transmission System with Storage Facilities on the basis of two separate Transmission Contracts:

- Interoperation Transmission Contract concluded between SSO and TSO, which is the basis for the allocation of capacity – 80% discount for SSO on entry/exit charges.
- Transmission Contract concluded between the TSO and a storage customer gives the storage customer the shipper's status (no entry/exit charge).

## ➤ **Information and transparency**

- TRANSPARENCY TEMPLATE

<https://ipi.gasstoragepoland.pl/en/menu-en/transparency-template/?page=operational-data/operational-data/operational-data/>

- AGSI+

<https://agsi.gie.eu>

# Third-Party Access rules



The general principles applicable to storage services according to the present national code (not approved by the President of ERO):

- Gas storage services are provided to storage customers based on the principle of non-discrimination and equal treatment of storage customers taking into account optimum and efficient use of the storage facilities and the storage capacity
- Two ways of offering storage services:
  - application procedure – period for submitting needs by customers
  - auction procedure\* – detail information is to be published at least 5 business days before a given auction is take place
- According to the period of their provision, the storage services may be provided as:
  - Long-Term Storage Service provided during a period of 1, 2, 3 or 4 consecutive Storage Years
  - Short-Term Storage Service provided for a period:
    - from 1 to 11 consecutive Gas Months (Monthly Storage Service); or
    - 7, 14 or 21 consecutive Gas Days (Weekly Storage Service),
    - 1 Gas Day (Day-Ahead Storage Service)
  - Intraday Storage Service provided for a period ranging from 1 to 24 hours
- Firm Storage Service and Interruptible Storage Service
- In 2020 the GSP company did not have the capacity of the storage installations exempt from third party access

\* <https://ipi.gasstoragepoland.pl/en/menu-en/transparency-template/?page=legal-documentation/storage-codes/to-download-pum/>



# Third-Party Access rules

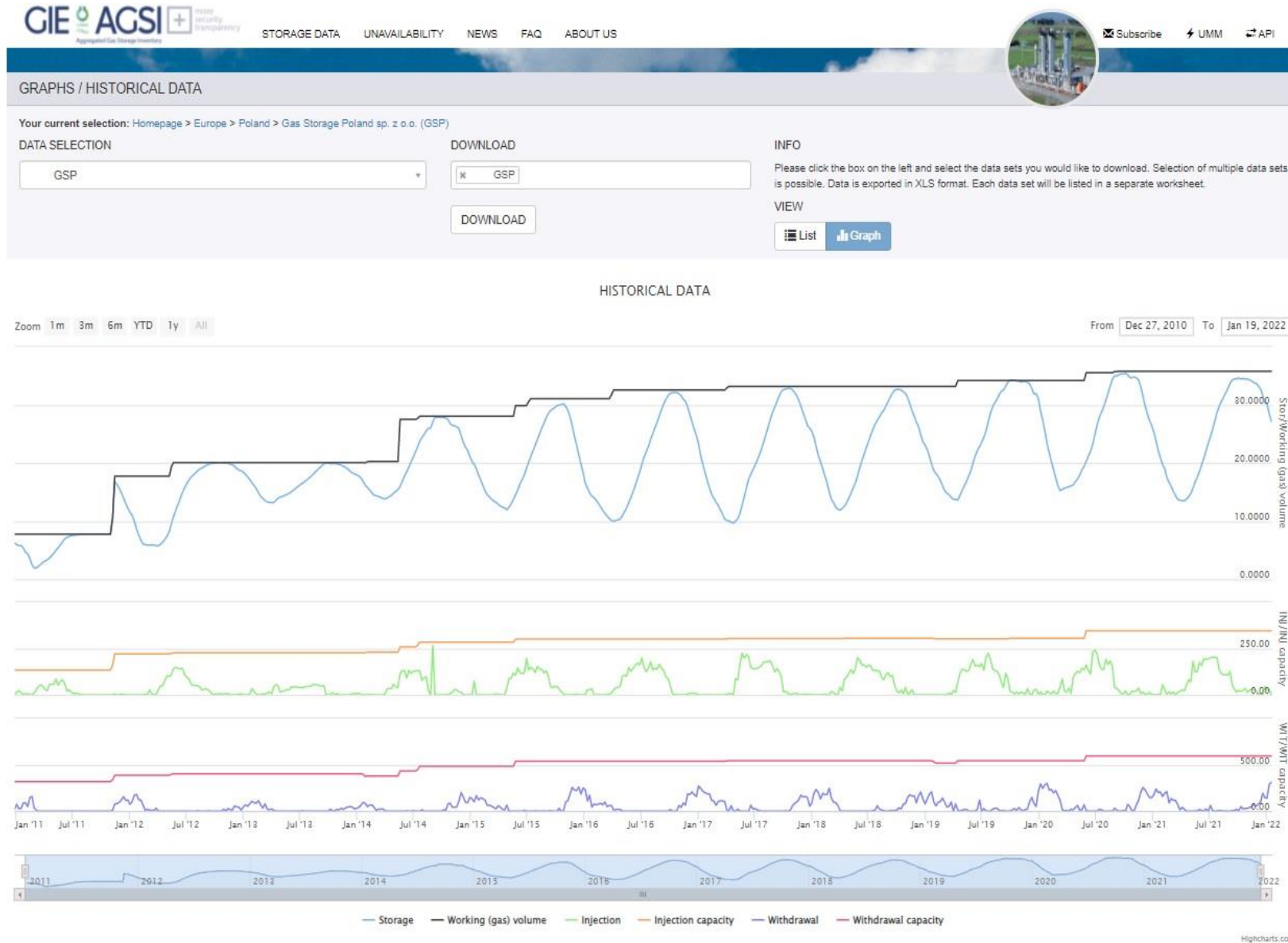


STORAGE SERVICES	
FIRM STORAGE SERVICES	INTERRUPTIBLE STORAGE SERVICES
<b>LONG-TERM STORAGE SERVICES (1-4 yrs)</b>	
Firm Long-Term Storage Service: <ul style="list-style-type: none"> <li>✓ <a href="#">Bundled Unit</a></li> <li>✓ <a href="#">Flexible Bundled Unit</a></li> <li>✓ <a href="#">Unbundled Storage Service (12 months)</a></li> </ul>	Interruptible Long-Term Storage Service: <ul style="list-style-type: none"> <li>✓ <a href="#">Bundled Unit</a></li> <li>✓ <a href="#">Flexible Bundled Unit</a></li> <li>✓ <a href="#">Unbundled Storage Service (12 months)</a></li> </ul>
<b>SHORT-TERM STORAGE SERVICES (1 day, 1-3 weeks or 1-11 months)</b>	
Firm Short-Term Storage Services: <ul style="list-style-type: none"> <li>✓ <a href="#">Bundled Unit (monthly, weekly)</a></li> <li>✓ <a href="#">Flexible Bundled Unit (monthly, weekly)</a></li> <li>✓ <a href="#">Unbundled Storage Service (day-ahead, monthly, weekly)</a></li> </ul>	Interruptible Short-Term Storage Services: <ul style="list-style-type: none"> <li>✓ <a href="#">Bundled Unit (monthly, weekly)</a></li> <li>✓ <a href="#">Flexible Bundled Unit (monthly, weekly)</a></li> <li>✓ <a href="#">Unbundled Storage Service (monthly, weekly)</a></li> </ul>
<b>DAILY STORAGE SERVICES (1-24 hrs)</b>	
	Interruptible intra-day storage service – <a href="#">unbundled</a>

SPECIAL STORAGE SERVICES	
90/40	a firm long-term storage service or short-term storage service provided to storage customers in the GSF Kawerna in the form of a bundled unit with technical parameters ensuring the possibility of injecting gaseous fuel within up to 90 gas days and withdrawing gaseous fuel within up to 40 gas days, as applicable according to the technical specifications of the GSF Kawerna
Reverse	interruptible short-term storage service provided to storage customers in the GSF Sanok and in the storage facility of UGS Wierzchowice in the form of a bundled unit or flexible bundled unit, whereby the SSO ensures the possibility of injecting gaseous fuel during the withdrawal period and the possibility of withdrawing gaseous fuel during the injection period on the basis of offsetting nominations and renominations concerning the injection and withdrawal in the same period
Injection, withdrawal, working volume extension	the extension of the offered services shall not constitute a separate storage service and shall be settled as part of the charges for the storage service in connection with which such extension has been made available to the storage customer
REMIT reporting	<p>The SSO, acting on behalf of the storage customer shall report to the ACER and, at their request, to national regulatory authorities, through a RRM selected by the SSO, on the volumes of natural gas the storage customer holds in storage at the end of the gas day, as stipulated under Article 9(9) of the Implementing Regulation of the Commission (EU) No 1348/2014 (REMIT). The reporting of the information shall require the execution of a dedicated agreement between the storage customer and the SSO and the registration of the storage customer in the CEREMP system.</p> <p>The SSO shall carry out the reporting obligations on the basis of a separate agreement concluded with the storage customer and as part of the charges for the provision of storage services.</p>

Min Working Volume to be contracted – 200 MWh  
 Reference gross calorific value – 39,5 MJ/m<sup>3</sup>

# Utilisation rate in past years (AGSI+)



# Congestion Management Procedures



According to the principles set out in the Rules, GSP may resort to the following instruments for congestion management:

- **on-going monitoring and assessment of the utilisation of the contracted Storage Capacity** - In case when, for at least one Storage Year or, in case of GIM Kawerna, for 6 consecutive Gas Months, the utilisation of the contracted Storage Capacity by a Storage Customer is lower than 70%, GSP may, having called upon the Storage Customer to provide clarifications, may reduce the allocated Storage Capacity, as appropriate, by offering it to other market participants (so-called “use-it-or-lose-it” rule)
- **making the unused Nominal Withdrawal Capacity and Nominal Injection Capacity available as Intraday Storage Service** - SSO may offer the unused Nominal Injection Capacity or unused Nominal Withdrawal Capacity available as Intraday Storage Service provided on interruptible basis in the current or the following Storage Day
- **trade the Storage Capacity on a secondary market** - SSO enables and organises a secondary market. The principles concerning the transfer of the right to Storage Capacity held by a Storage Customer to third parties are set out in Appendix No. 7 to the Rules.
- **Contractual Congestion Management** - the instruments used to prevent contractual congestion include also congestion management fees (ZOK) which apply exclusively with respect to the Storage Capacity to be used for the purposes of mandatory stockpiling, and only when the following circumstances are simultaneously fulfilled:
  - demand from applicants for Storage Capacity to enable the mandatory stockpiling in a given Storage Facility exceeds the amount of such capacity available in such Storage Facility
  - the Storage Capacity which remains unused for this purpose exceeds 20% of the capacity allocated to the Storage Customer for this purpose
  - The Storage Customer fails to reduce its contracted capacity according to the Rules by 31 March of the first or subsequent year of the occurrence of contractual congestion

# Storage and security of supply obligations (mandatory reserves etc.)

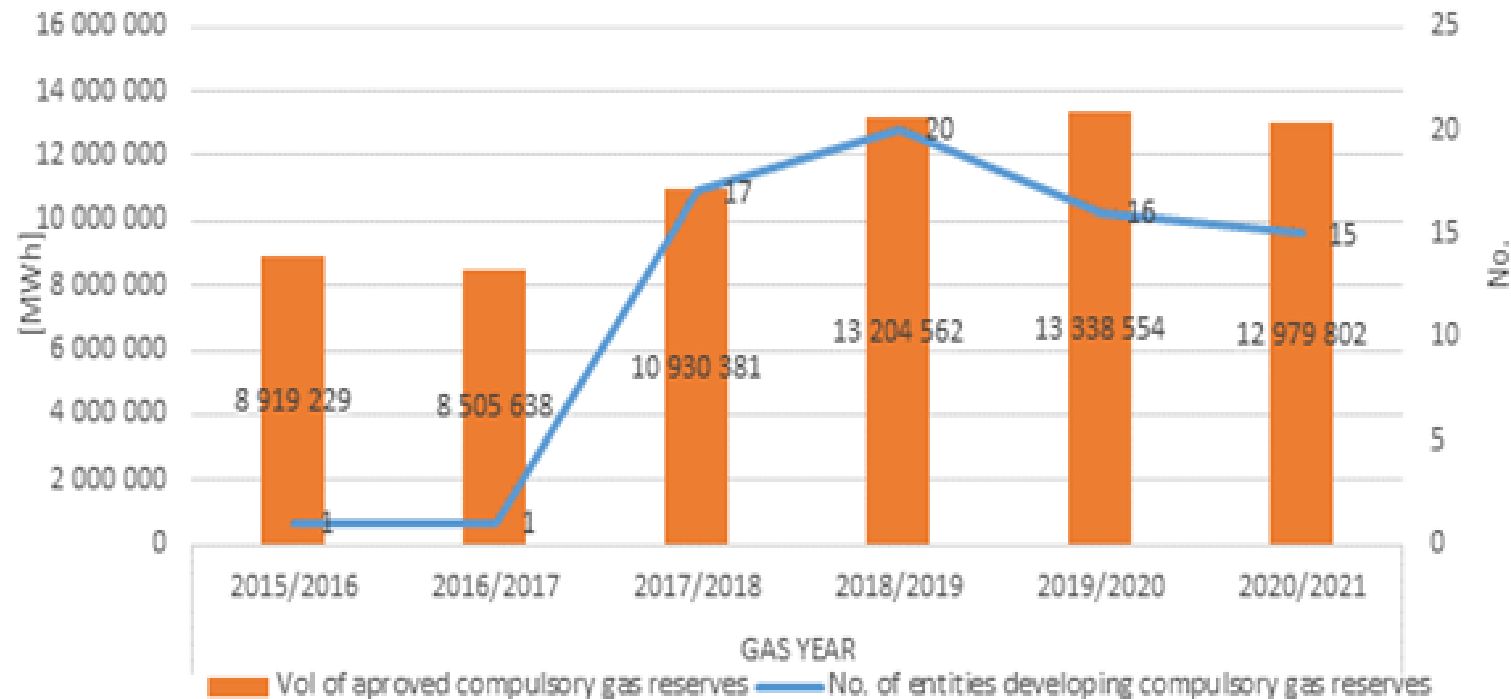


## Act of 16 February 2007 on the stockpile of crude oil, petroleum products and natural gas and on the operating procedures applicable in emergencies involving state fuel security or oil market disturbances

- Principles for creating and maintaining mandatory stocks in storage facilities
  - the entities obliged to maintain mandatory gas reserves:
    - end users importing natural gas,
    - traders importing natural gas;
  - the compulsory gas reserves should be developed till the end of September and maintained from 1<sup>st</sup> October till 30<sup>th</sup> September next year;
  - the compulsory gas reserves should be maintained in storage facilities in Poland, any other EU Member States or in EFTA Member States;
  - volume of compulsory reserves: 30 days of average gas import;
  - ability to withdraw within not more than 40 days;
  - injection after withdrawal - within 4 months (not more than 8 months upon additional permission);
  - in case of compulsory gas reserves developed abroad, firm transportation services (to the Polish gas system) should be contracted. Such services shall be utilized only in case of compulsory gas reserves transportation;
  - ticketing services:
    - another trader (upon ERO trading licence) may offer ticketing services,
    - compulsory gas reserves are maintained in a storage facility in Poland, any other EU Member States or EFTA Member States,
    - the compulsory gas withdrawal  $\leq$  40 days;
    - the contractual terms (contract and pricing) on the ticketing services provider web,
    - the client is entitled to withdraw gas,
    - the ticketing services provider shall not use gas labeled as compulsory reserves,
    - ERO in ex ante mode approves stock ticket service agreements;
  - the minister responsible for energy may release the decision on compulsory gas reserves withdrawal; TSO upon the minister's decision withdraws compulsory gas reserves

# Storage and security of supply obligations (mandatory reserves etc.)

### Realisation of compulsory gas reserves



# Pricing scheme



- The storage tariffs are calculated by the SSO and approved by the President of ERO in the form of the administrative decision - the access to storage facilities in Poland is regulated.
- Such decisions and tariffs are published on the following Web sites:
  - by ERO: <https://bip.ure.gov.pl/bip/taryfy-i-inne-decyzje-b/paliwa-gazowe> (Polish version)
  - by SSO: <https://ipi.gasstoragepoland.pl/en/menu-en/transparency-template/?page=tariffs-and-pricing/tariff-information/> (Polish & English version)
- Tariff in force from 16<sup>th</sup>, June 2021 till 31<sup>st</sup>, March 2022: [https://ipi.gasstoragepoland.pl/wp-content/uploads/2021/12/Storage-Service-Tariff-No-1\\_2021-Amendment-3-btz.pdf](https://ipi.gasstoragepoland.pl/wp-content/uploads/2021/12/Storage-Service-Tariff-No-1_2021-Amendment-3-btz.pdf)
- Storage charges are calculated on cost plus methodology
- Tariff period – one year
- Return on assets – min 6% of RAB
- Depreciation – straight line (based on accounting rules)
- Entry/Exit TSO charges included in SSO charges
- Storage charges:
  - SBU - standard bundled unit
  - Flexible SBU (200 MWh working volume (WV), injection and withdrawal within defined range)
  - Unbundled: WV, withdrawal, injection
- No variable charges
- Detailed information on the methodology for setting tariffs: <https://ipi.gasstoragepoland.pl/wp-content/uploads/2019/05/Tariff-calculation-rules.pdf>

**THANK YOU FOR YOUR ATTENTION!**