ACER
Agency for the Cooperation of Energy Regulators

Questionnaire for the assessment of the **LNG** and **Storage Systems** in GRI SSE Countries and Energy Community Contracting Parties

Regulatory perspectives

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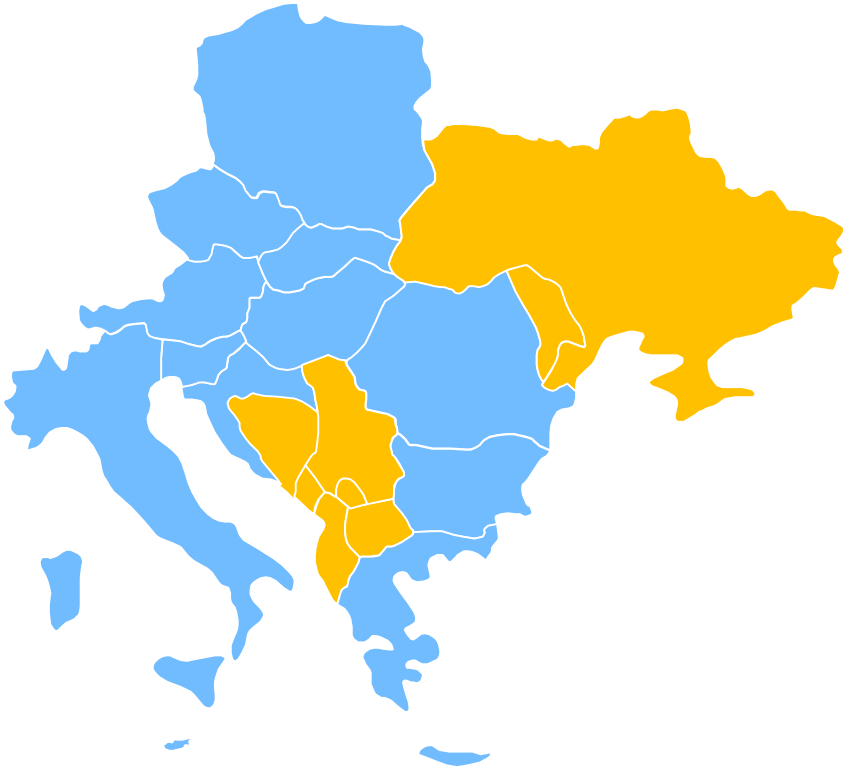
GRI SSE – Prague 27 November 2019

Territorial scope

MS GRI SSE

CPs



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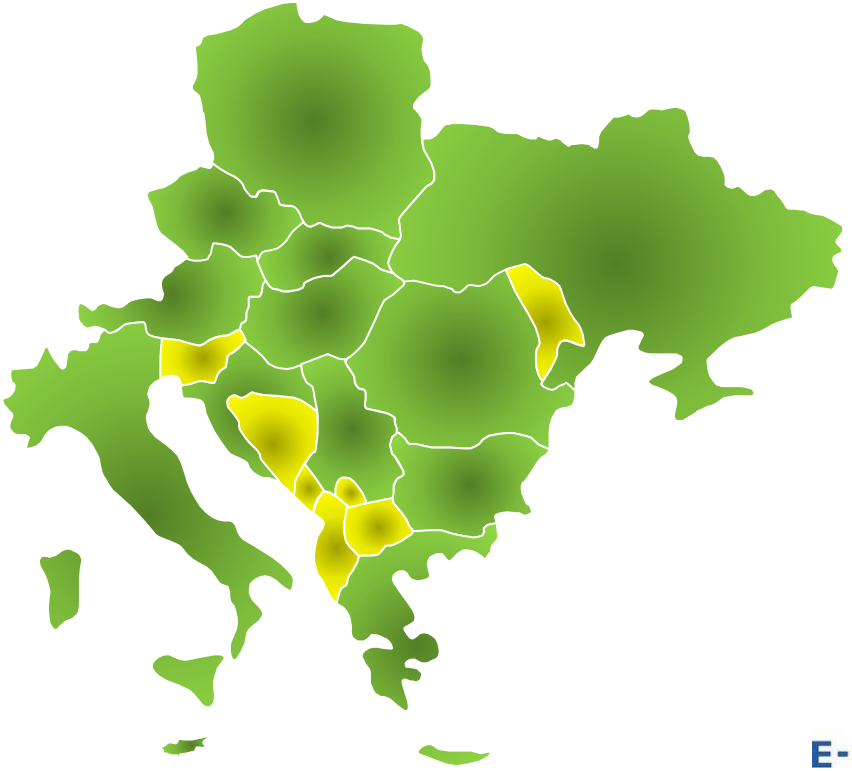
Replays

Questionnaire participating MSs & CPs 56 questions (1-22 LNG, 23-56 storage)

- Replays
- No replays
- No LNG & No storage



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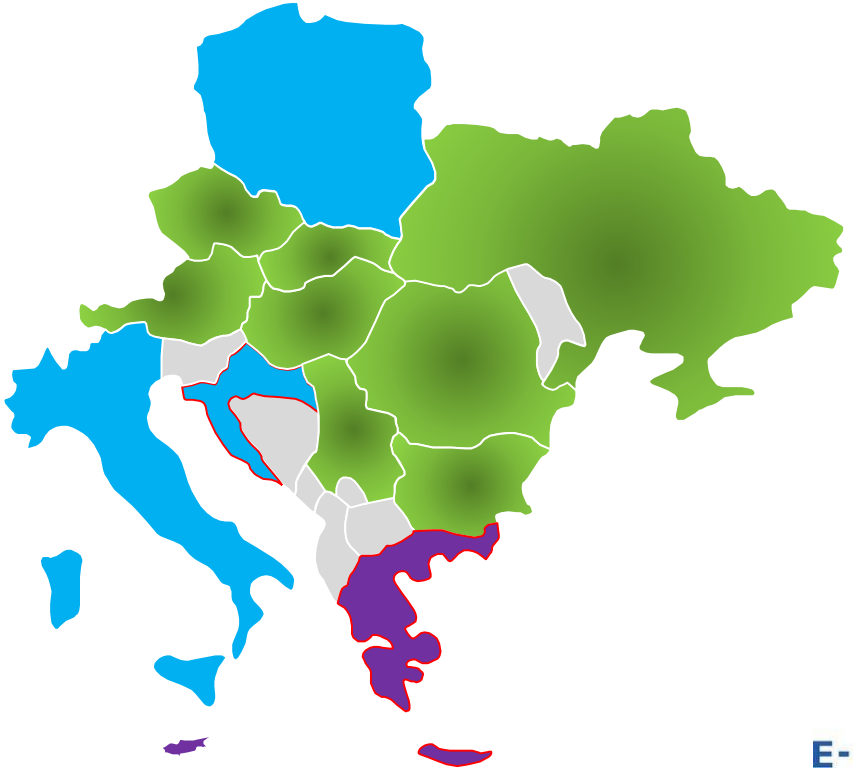
Replays on topics

Questionnaire participating MSs & CPs 56 questions (1-22 LNG, 23-56 storage)

- LNG
- Storage
- LNG and Storage
- Future LNG or Storage



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Main topics (LNG & Storage)

- Legal framework and characteristics of the system
- General sector statistics
- Network capacity allocation/booking
- Network system charges
- Specific services
- Average service costs

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LNG infrastructure

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Legal framework

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Q2-Q4: Facts to LNG markets

Country	2. What is the share of LNG capacities offered under TPA (% of total technical capacity)?	3. What is the number of LNG operators?	4. What is the number of LNG terminals?
Poland	100%	1	1
Italy	58%	3	3
Greece	100%	1	1
Malta	N/A	1	1
Croatia	N/A	1	1 (operable as of 1 January 2021)

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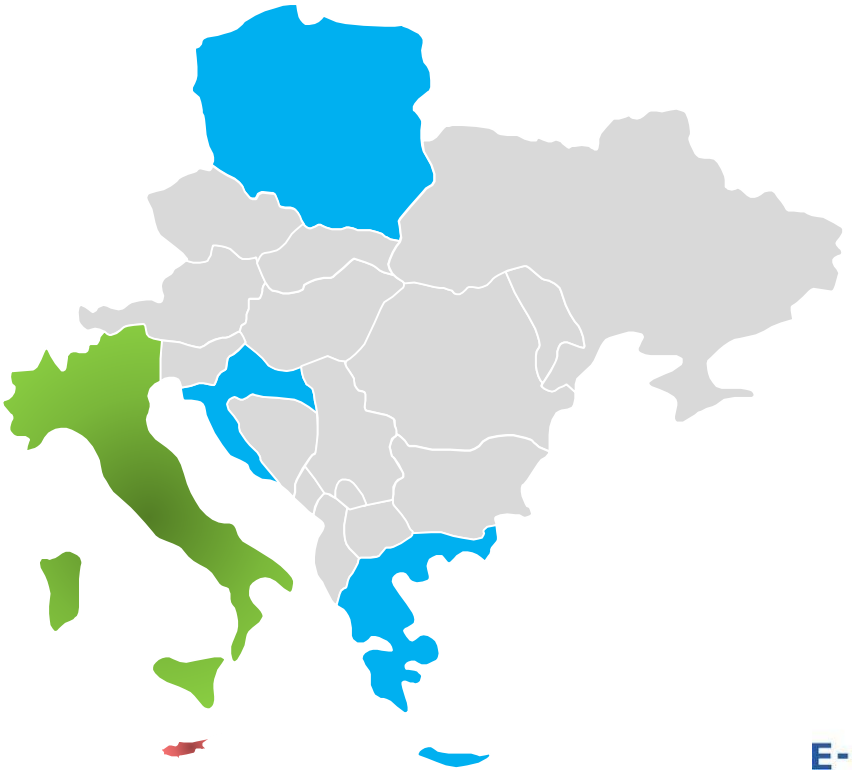
Q6: *Is the **access** to LNG regasification terminal **regulated** or at **market condition**?*

- Regulated
- Market Conditions
- Both
- Other



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General sector statistic & network capacity allocation

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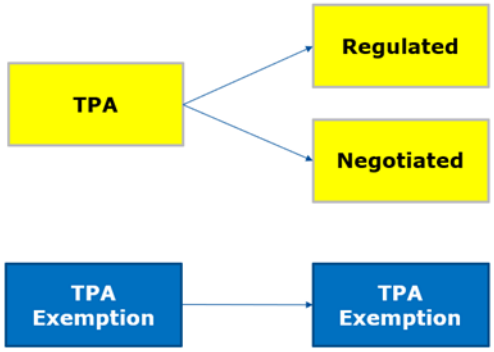
Q7 + Q8: *Regasification* ***capacities***

Country	7. a) Total regasification capacity in case of **regulated access** (please give a number in MWh/y):	7. b) Total regasification capacity in case of **negotiated access** (please give a number in MWh/y):	7. c) Total regasification capacity in case of **TPA exempted** (please give a number in MWh/y):	8. **Total (i.e. sum of all terminals) maximal regasification capacity** per day in MWh, please give a number:
Poland	63,004,198 MWh/y	-	0	152,901 MWh/d
Italy	97,150,008 MWh/y	-	69,443,316 MWh/y	513,548 MWh/d
Greece	74,635,565 MWh/y	-	0	204,481 MWh/d
Malta	-	-	7,594,056 MWh/y	20,807 MWh/d
Croatia	25,228,800 MWh/y	-	-	69,120 MWh/d



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Q9a+b+c: Share of utilization *(% of the annual technical LNG regasification capacity)*

	9. a) Share of utilization in 2016 (% of the annual technical LNG regasification capacity) for			9. b) Share of utilization in 2017 (% of the annual technical LNG regasification capacity) for			9. c) Share of utilization in 2018 (% of the annual technical LNG regasification capacity) for		
	2016			2017			2018		
Country:	% regulated	% negotiated	% exempted	% regulated	% negotiated	% exempted	% regulated	% negotiated	% exempted
Poland	100% (where 25 % of that was used).	-	-	100% (where 29 % of that was used).	-	-	100% (where 47 % of that was used)	-	-
Italy	9,5 % is the average value for the other two regulated terminals OLT is 13% and Panigaglia 6%	-	72% is LNG Caverzere (this terminal is exempted 80% of the capacity and 20% is regulated)	21 % is the average value for the other two regulated terminals OLT is 24% and Panigaglia 18%	-	86% is LNG Caverzere (this terminal is exempted 80% of the capacity and 20% is regulated)	27% is the average value for the other two regulated terminals OLT is 29% and Panigaglia 25%	-	84% is LNG Caverzere (this terminal is exempted 80% of the capacity and 20% is regulated)
Greece	16.3%	-	-	29.2%	-	-	39%	-	-
Malta	-	-	-	-	-	39%	-	-	48%
Croatia	n.a. as terminal will be operable as of 1 January 2021			n.a. as terminal will be operable as of 1 January 2021			n.a. as terminal will be operable as of 1 January 2021		

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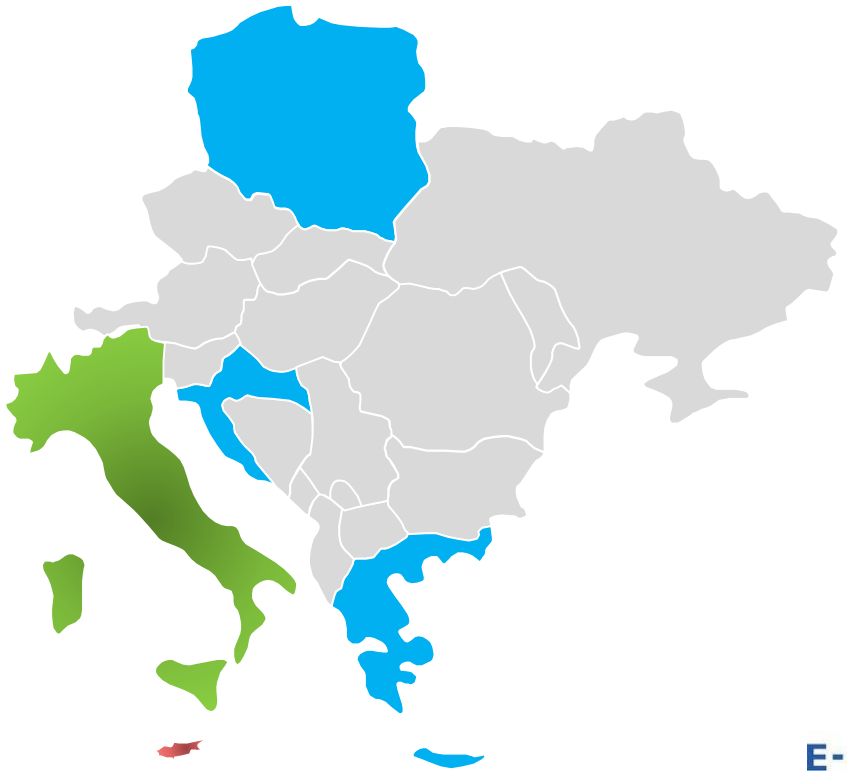
***Q10: By whom** is the **entry capacity** into the main (TSO) network system directly **bookable**?*

- by Shippers
- by LNG operators
- No transmission network



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Network system charges

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Q11: *How high is the* ***TSO entry charge into the main network system*** *set in €/kWh/h/y.*

	11. TSO entry charge into the main network system, please indicate the charge (€/kWh/h/y):
Poland	terminal in Świnoujście 100% discount
Italy	- Panigaglia 0,606 €/kWh/h/y - LNG 1,263 €/kWh/h/y - OLT 0,7598 €/kWh/h/y
Greece	Greek LNG tariff consists in 2019 of two components (Capacity and commodity charge) -) Capacity charge =3.868845 €/kWh/h/y -) Commodity charge = 0.0001495 €/kWh 2020 (New Tariff Code) only Capacity charge = 6.4214893 €/kWh/h/y
Malta	There is no gas transmission network in Malta.
Croatia	Final entry tariff from LNG to the transmission system is not yet determined. For the purpose of conducting Open Season procedure for LNG capacities and during NC TAR consultation, indicative transmission tariffs were determined and published within NC TAR consultation process. It is expected that final tariffs will be reached during 2020.

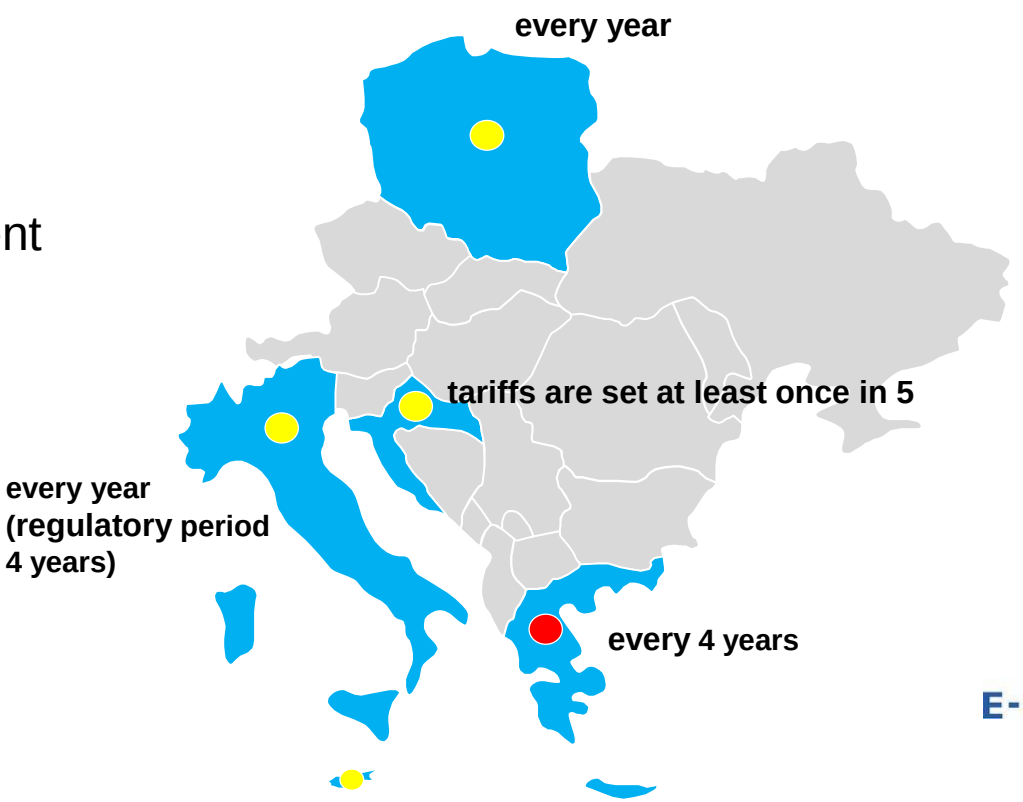
Q12a: *In your country, who is responsible for* ***approving*** *the methodology to calculate the entry tariffs from the LNG into the transmission system?*

Q12b: *In your country, who is responsible for* ***publishing*** *the methodology to calculate the entry tariffs from the LNG into the transmission system?*

● NRA & LNG operator ● NRA

Q13: How often *are* ***entry tariffs*** *into the network system* ***updated****?*

- NRA
- LNG operator
- Ministry / government



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Specific services

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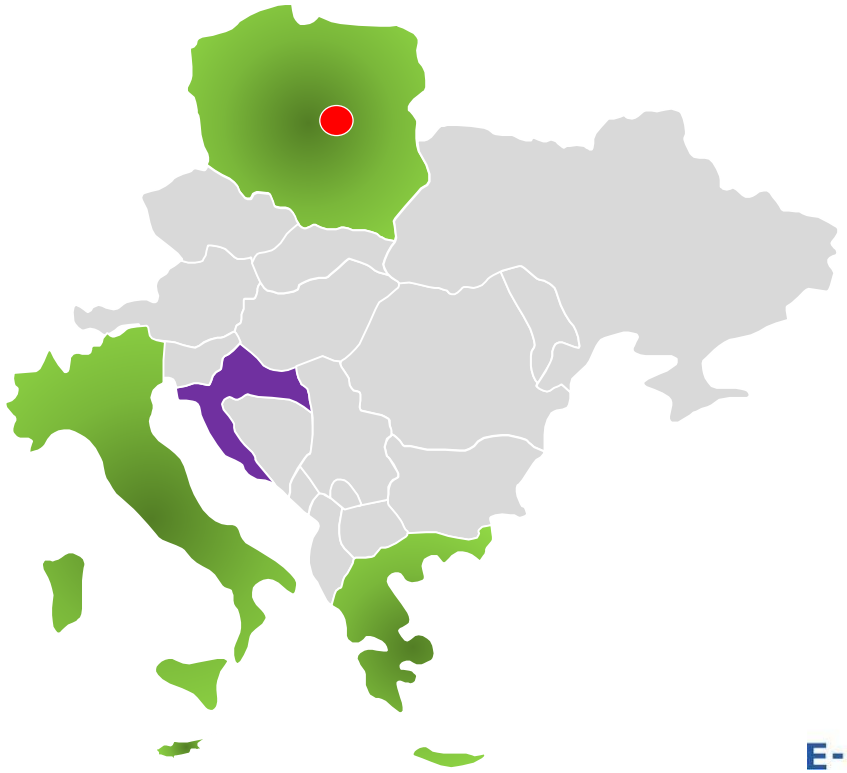
Q16: *Is the **LNG transhipment service possible** (transfer of a cargo between two ships, or division into several smaller batches where LNG transferred is neither mixed nor stored in the terminal's tanks) in at least one of your LNG facilities?*

Q15: *Is it possible to **load LNG on trucks** from at least one of your LNG facilities?* Yes

Yes

No

No answer



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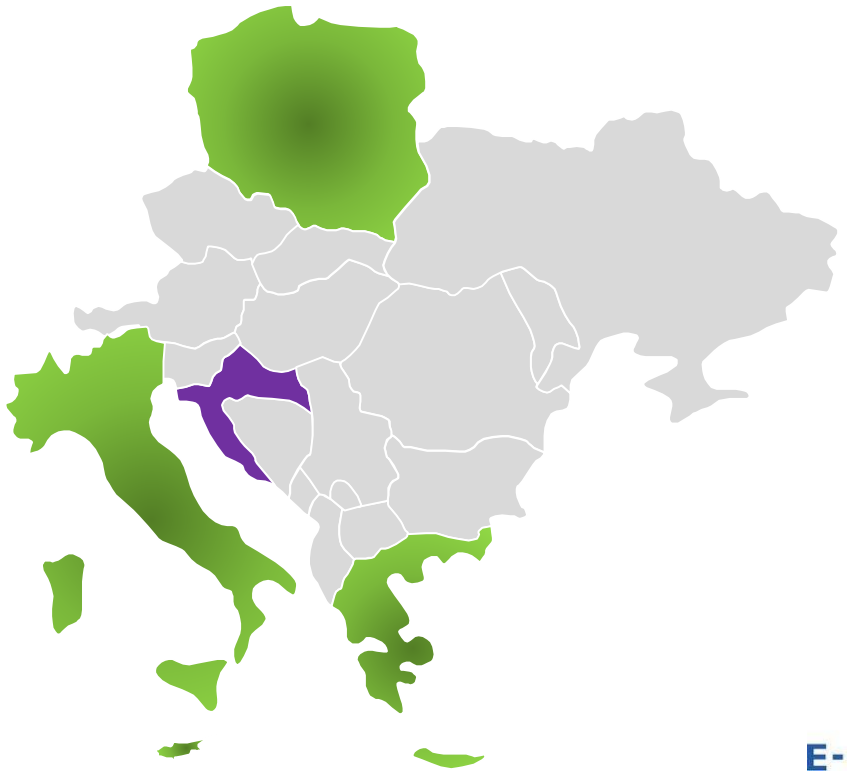
Q17: *Is the **reload service** (to reload LNG that has previously been unloaded in the shore tanks) in at least one of your LNG facilities **possible**?*

Q18: *Does at least one of your **LNG facility allow bunkering** (LNG Bunkering is the practice of providing liquefied natural gas fuel to a ship for its own consumption)?*

- Yes
- No
- No answer



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Average service costs

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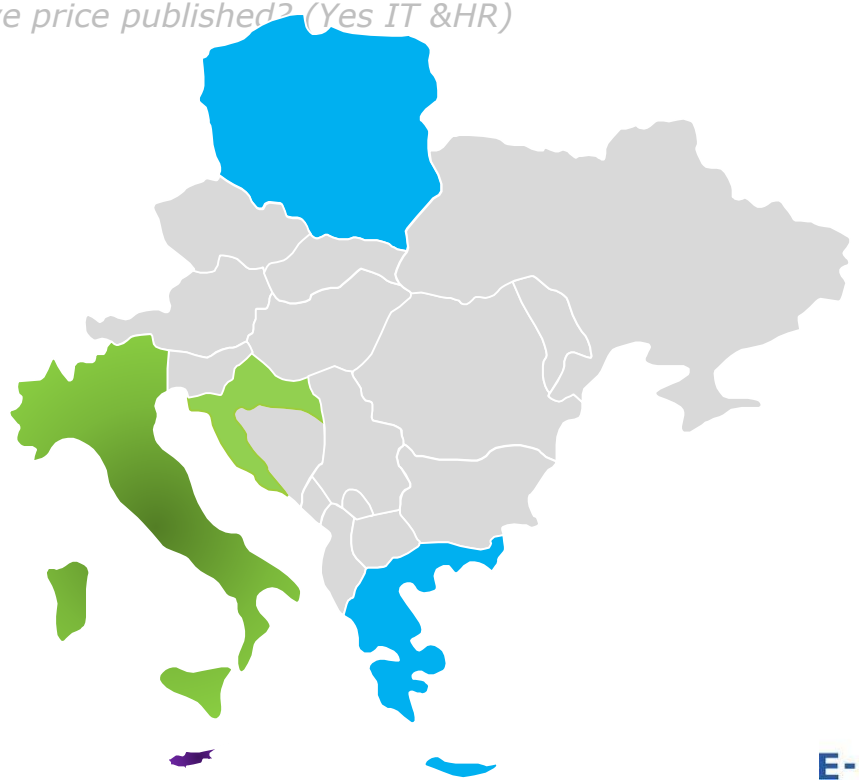
Q19: ***How*** *is the LNG regassification* ***capacity allocated****?*

Q19a: *In case an auction design is in place, are the results published? (IT & HR yes)*

Q19b: *If no, does the NRA receive information about the auction results?*

Q19c: *How is the auction reserve price determined?*

Q19d: *Is the auction reserve price published? (Yes IT &HR)*



First come first serve

Auction

Other

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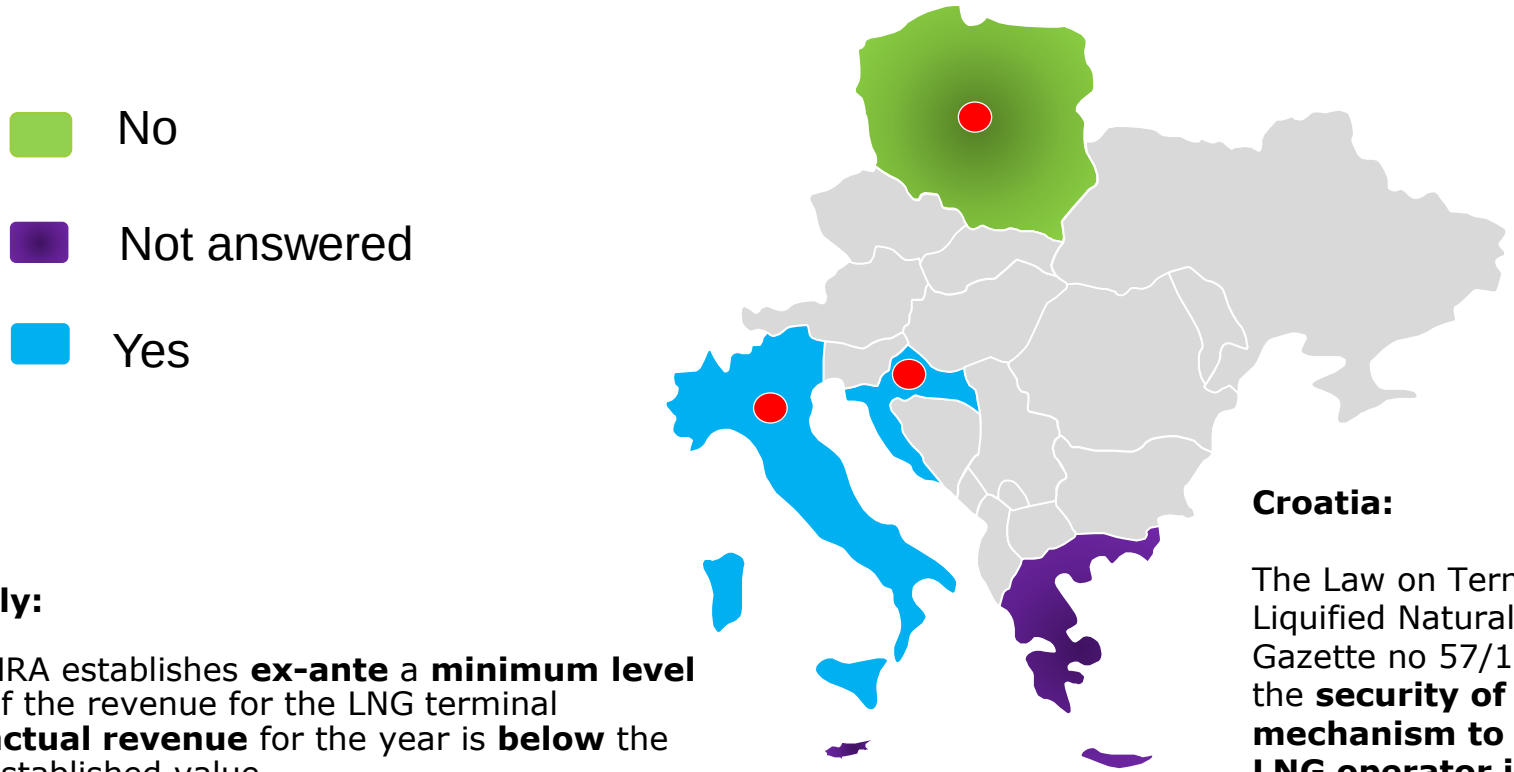
Q19e+f: *Is there a* ***mechanism*** *in place* ***to compensate LNG operators in case market prices do not cover for the regulated costs*** *(e.g. allocation of losses on transmission tariffs)? Please explain this mechanism.*

Q19g: *Are the* ***charges for*** *such* ***regasification services regulated*** *(by NRA/Ministry)* ***or freely set*** *by the LNG operator?*



Italy:

- NRA establishes **ex-ante** a **minimum level** of the revenue for the LNG terminal
- **actual revenue** for the year is **below** the established value
- LNG terminal receives a **compensation up to 64%** of the ex ante established revenue

Croatia:

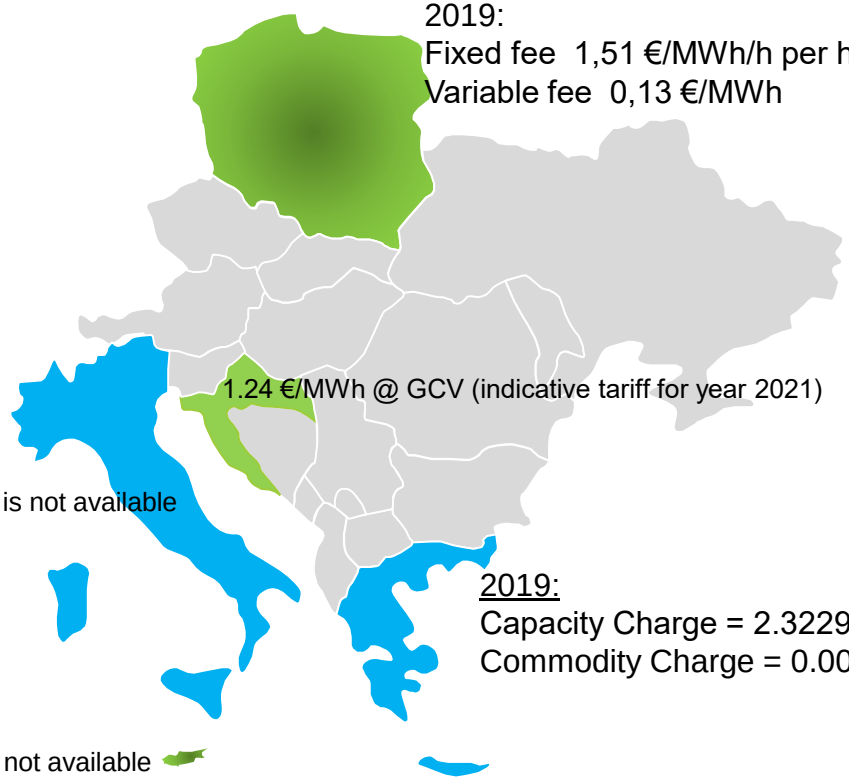
The Law on Terminal for Liquified Natural Gas (Official Gazette no 57/18) envisages the **security of supply** fee as a **mechanism to compensate LNG operator in case of under-recovery** of allowed revenue from regulated tariffs.

Q21: *Are **bundled products** (gasification capacity + access to the transportation system) **offered**?*

Q22: *Can you state the **average regasification costs in Euro per MWh** (from the ship up to the IP with the network system)?*

Yes

No



2019:
Fixed fee 1,51 €/MWh/h per h
Variable fee 0,13 €/MWh

1.24 €/MWh @ GCV (indicative tariff for year 2021)

This information is not available

2019:
Capacity Charge = 2.3229305 €/kWh/day/y
Commodity Charge = 0.000126 Euro/kwh/y

This information is not available

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Storage infrastructure

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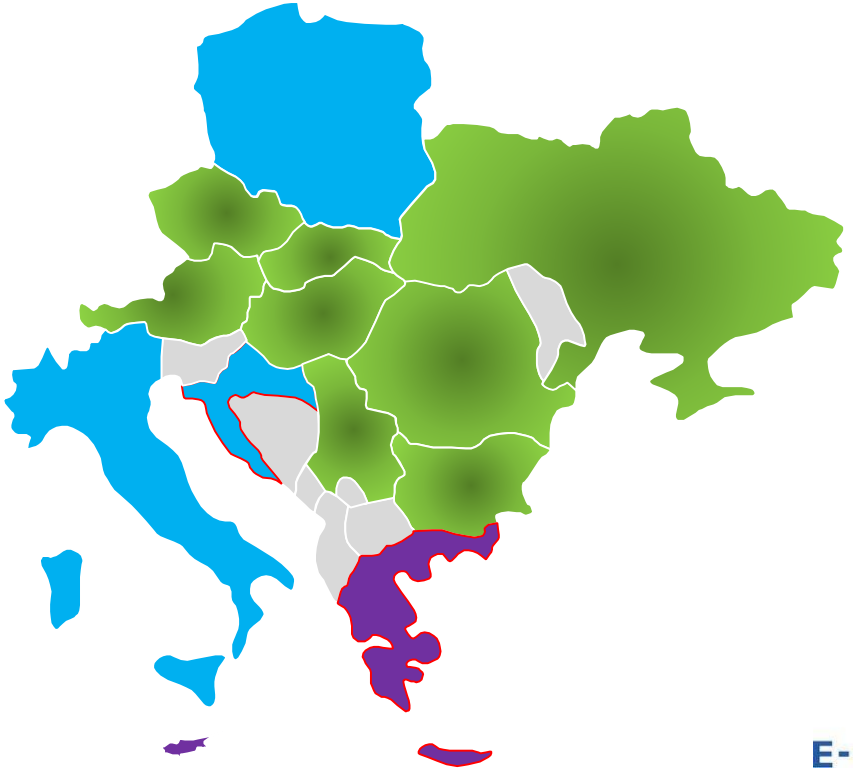
Replays on topics

Questionnaire participating MSs & CPs 56 questions (1-22 LNG, 23-56 storage)

- LNG
- Storage
- LNG and storage infrastructure
- Future infrastructures



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Legal framework

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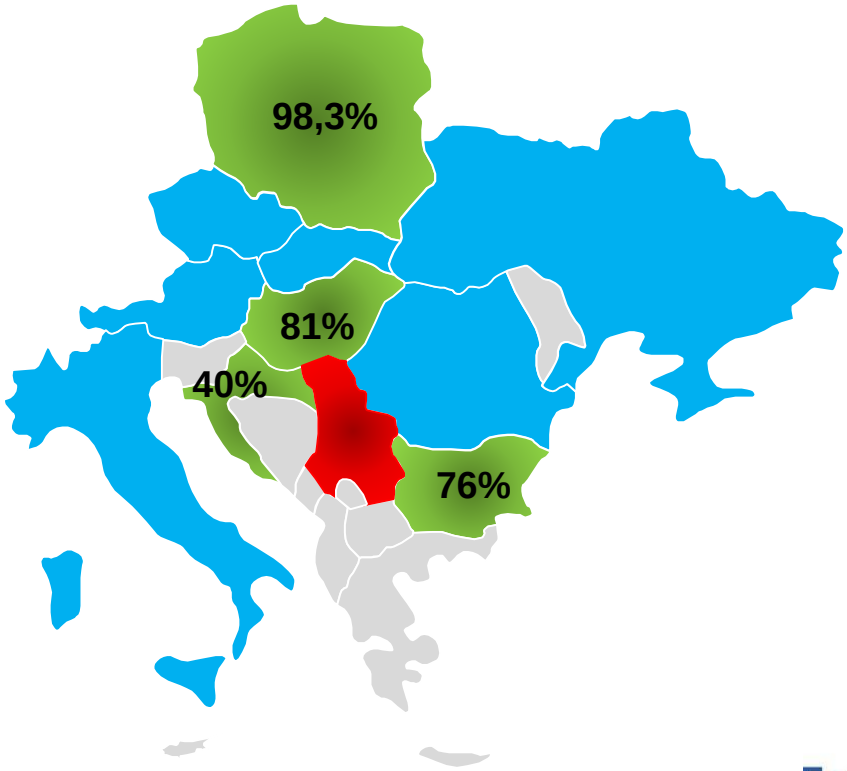
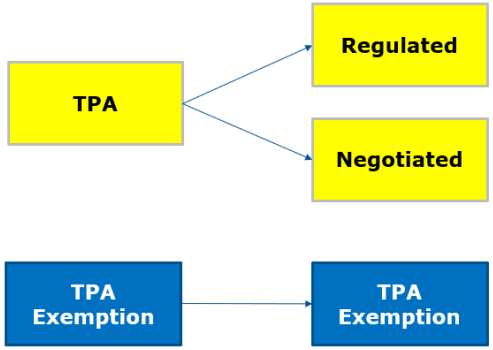
Q23a: Share of storage capacities offered under TPA *(working gas capacity, %):*

100%

different percentages

0% full exemption





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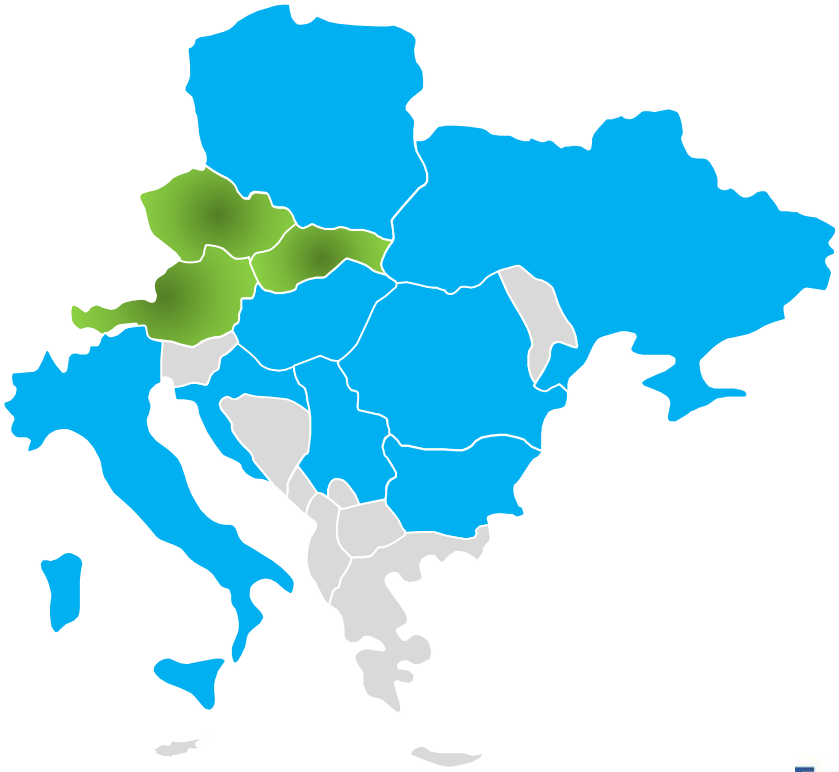
Q24: *Is the storage system* ***regulated or at market conditions****?*

Regulated access

Negotiated access



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Q26a-f: *Number of storage* ***companies****, storage* ***facilities*** *and storage* ***types***

Country	26. a) How many storage companies do operate in your country?	26. b) How many storage facilities do you have in your country?	26. c) How many storage facilities do you have in your country?		
			[salt]cavities	aquifer	depleted gas fields
Austria	**5**	8	-	-	8
Serbia	1	1	-	-	1
Czech republic	3	8	1	1	6
Hungary	2	5	-	-	5
Poland	1	7	2	-	5
Italy	3	**13**	-	-	**13**
Greece	-	-	-	-	-
Slovakia	2	2	-	-	2
Romania	2	7	-	-	7
Bulgaria	1	1	-	-	1
Ukraine	1	**12**	-	2	**10**
Malta	-	-	-	-	-
Croatien	1	1	-	-	1

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Q27-Q30: Interconnection of storages *with other countries and TSO/DSO network*

Country	27. What is the number of the storage facilities in your country directly interconnected (with dedicated pipeline) with other countries?	28. What is the number of facilities of other countries directly interconnect (with dedicated pipeline) with your country?	29. What is the number of facilities directly interconnected with the TSO(s) network?	30. What is the number of facilities directly interconnected with the DSO(s) network?
Austria	2	1	1	**8**
Serbia	-	-	1	-
Czech republic	1	1	8	5
Hungary	-	-	5	-
Poland	-	-	7	-
Italy	-	-	**13**	**-**
Greece	-	-	-	-
Slovakia	2	1	2	2
Romania	-	-	7	-
Bulgaria	-	-	1	-
Ukraine	-	-	**12**	**-**
Malta	-	-	-	-
Croatia	1	-	1	-

Network capacity allocation and network system charges

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***Q35: Who books** the transport capacity to or from the storage facilities?*

- Shippers
- Storage operator
- Both
- Third entity books

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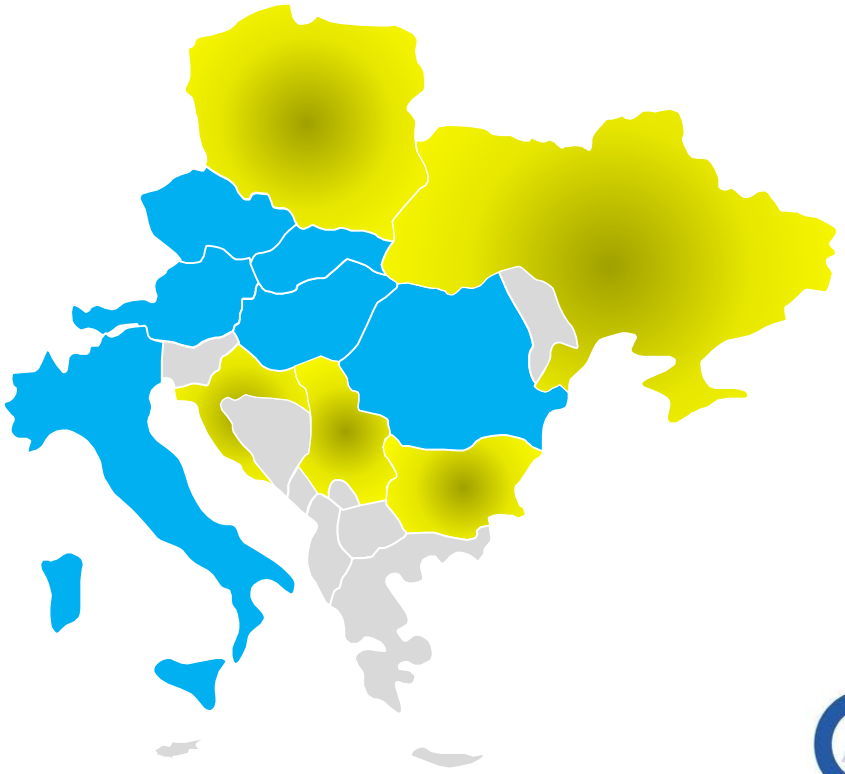
Q36: *Is the* ***entry/exit charge the same for all*** *the storage system operators (if more than 1):*

Yes

No

not applicable (only 1 SSO)



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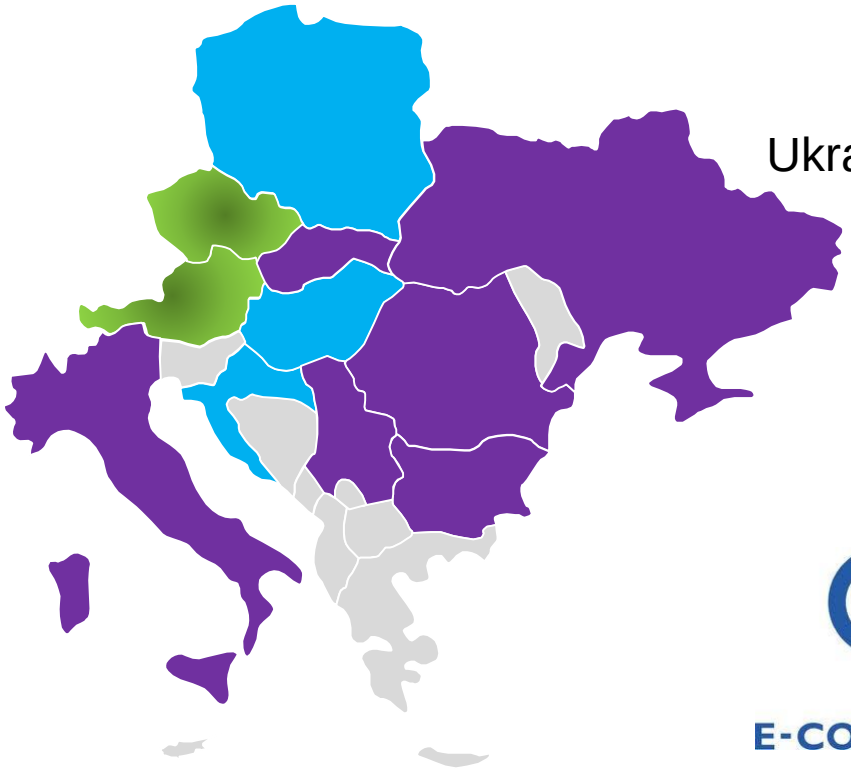
***Q37**: Do you apply **entry fee** (from the storage into the transmission/distribution system) or/and **exit fee** (from the transmission/distribution system the into storage)?*

Entry fee

Exit fee

Entry & Exit fee



Ukraine: 0/0

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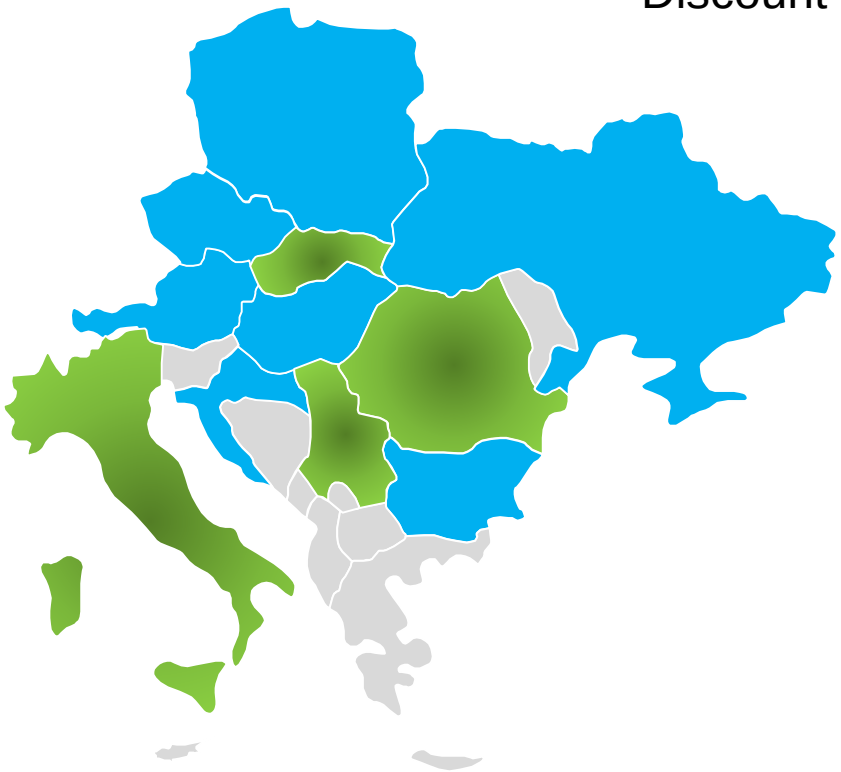
Q39: *Are the entry/exit tariffs into the network system* ***discounted*** *towards the real entry/exit tariffs calculated according to your entry/exit methodology?*

Yes

No

Discount from 50% to 90%



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Specific services

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Q40: *Do you have* ***regulatory requirements concerning minimum storage level*** *(e.g. strategic reserves)?*

No

Yes

Ukraine: No, it was in the past

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Q41+ 41a: *Do you have any of the following* ***options?*** *Please indicate the* ***quantity dedicated in MWh****.*

Country	Strategic Reserve	Supplier booking obligation	Traders and importers booking obligation	TSO booking obligation	N/A	Quantity dedicated in MWh
Austria					X	
Serbia					X	
Czech Republic		X				Supplier is obliged to keep 30 % of its security of supply quantity in UGS. However, all UGS in the EU may be used.
Hungary	X	X				Strategic reserve: 12 723 644 MWh Universal service providers' storage obligation: 22 442 874 MWh
Poland	X					Importers are obliged to keep gas reserves - 30 times average daily net import (import minus export) - 12 874 012 MWh for gas year 2018/19.
Italy	X					48.846.000 MWh
Slovakia		X				
Romania		X	X	X		245.000 for TSO 23.497.181,018 for suppliers and traders
Bulgaria	X	X				strategic reserve-1216700 booking obligation- from 10% till 20% from year consumptions of protected customers
Ukraine					X	
Croatia		X				There is requirement prescribed that suppliers with PSO have to book storage capacity in proportion enabling sufficient supply of household final customers using PSO service.

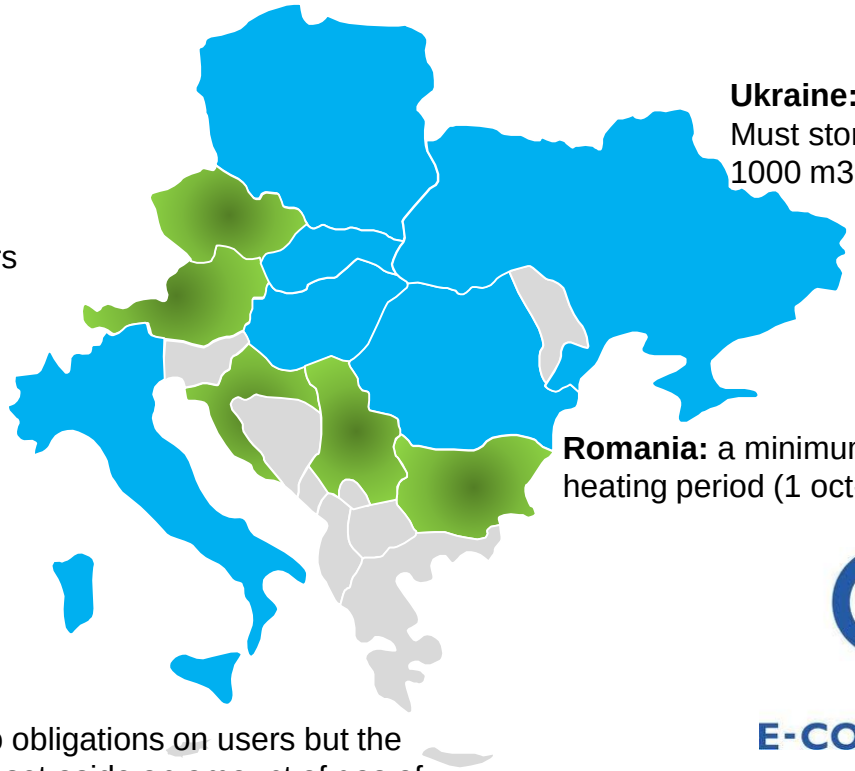
Q42a+b: *Are there any* ***regulatory/legal restrictions on injection and withdraw*** *over the year, or* ***obligations to hold certain amounts*** *of gas in store at certain times? If yes, please explain.*

No

Yes

Poland: Compulsory gas reserves are equal 30 times average daily net import (import minus export) – shippers are not entitled to withdraw gas during gas year. The right to withdraw this gas has TSO and only in case of emergency situation (the decision of Ministry of Energy to allow TSO to withdraw the gas is necessary)

Slovakia: In the event of a state of emergency in the gas sector, the SSO shall be obliged at the decision of the Ministry, to interrupt the withdrawal of gas from the storage facility for those gas market participants who store gas for consumers located outside the defined territory, to ensure the technical safety of a network in the defined territory



Ukraine: Storage users Must store not less then 1000 m3 gas in storages

Hungary: Universal service providers are required to have natural gas stocked in underground storage facilities. The level of the stocks in storage on October 1 should be at least 60% of the level of the highest winter consumption in the past ten years of their customers.

Romania: a minimum level in the heating period (1 oct-31 march)

Italy: there are no obligations on users but the Ministry decide to set aside an amount of gas of the SSO as strategic reserve

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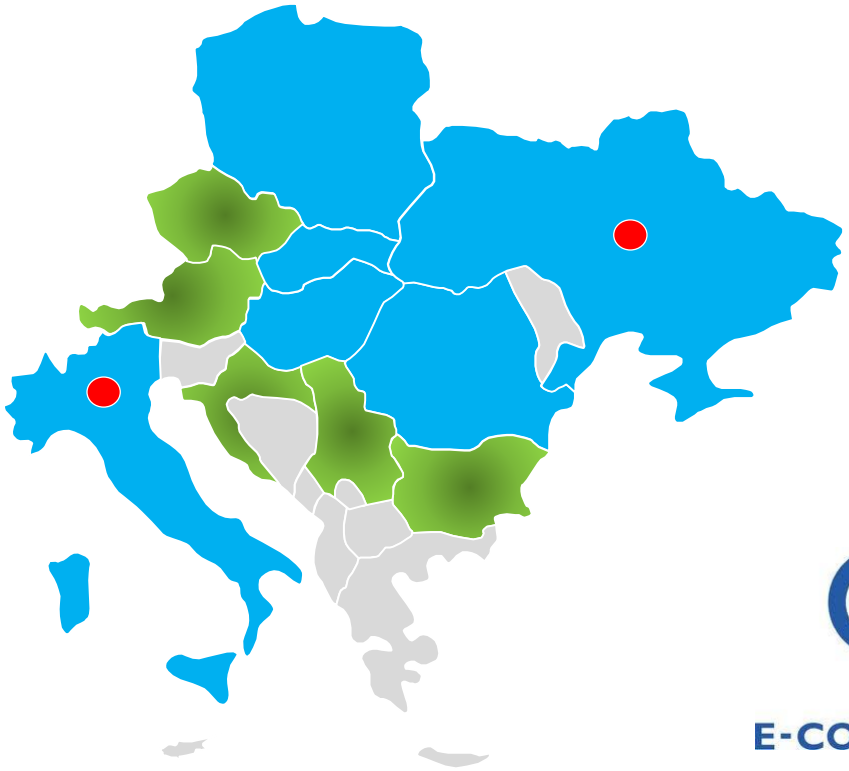
***Q43:** If **obligatory storage levels** apply, are they subject to any **cost-benefit analysis**?* ● Yes

Obligatory storage levels (according to Q42a)

No obligatory storage levels (according to Q42a)



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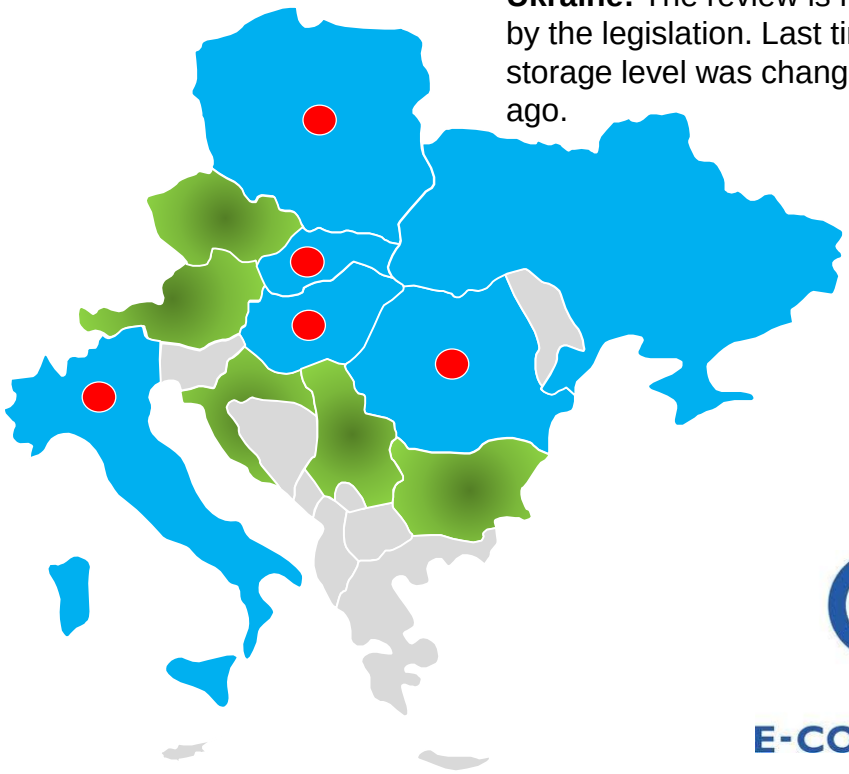
Q44: *Is the* ***need for*** *having such obligation* ***(obligatory storage) reviewed*** *on a regular basis?* ● Yes

Obligatory storage levels (according to Q42a)

No obligatory storage levels (according to Q42a)



Ukraine: The review is not foreseen by the legislation. Last time obligatory storage level was changed two years ago.

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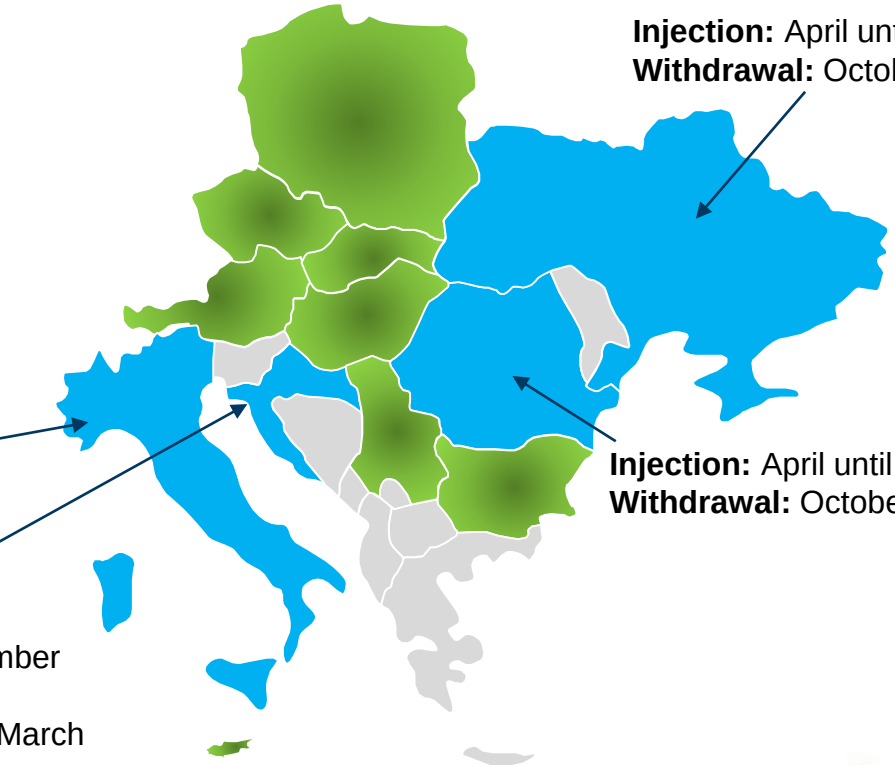
Q45: *Are* ***injection and withdrawal times fixed by law*** *during the storage year?*

Q45a: If yes, please indicate for the ***injection period****: the* ***beginning*** *(date) and the* ***end*** *(date)*

Q45b: If yes, please indicate for the ***withdrawal period****: the* ***beginning*** *(date) and the* ***end*** *(date)*

No

Yes



Injection: April until September
Withdrawal: October until March

Injection: April until October
Withdrawal: November until March

Injection: April until September
Withdrawal: October until March

Injection: from 1 April until 30 September of current gas year ± 30 days
Withdrawal: from 1 October until 31 March of current gas year ± 30 days

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Specific service costs

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Q47+47a: *Can you state the* ***average storage costs per MWh calculated*** *on the basis of the above-mentioned bundle product (use please the storage charge and the entry/exit tariffs to the network system to evaluate the cost) or if it is not possible, can you state a reference value? Please indicate the number (€/MWh working gas volume):*

Country	46. a) If yes, please indicate firm working gas volume for booking capacity in MWh (e.g. 20.000 MWh):	46. b) If yes, please indicate an injection period in days (e.g. 171 days):	46. c) If yes, please indicate an injection capacity in kWh/h (e.g. 5.600 kWh/h):	46. d) If yes, please indicate a withdrawal period in days (e.g. 150 days):	46. e) If yes, please indicate a withdrawal capacity kWh/h (e.g. 10.000 kWh/h):	47. a) Please indicate the number (€/MWh WGV):
Austria	20.160 MWh	125 days	6.720 kWh/h	93 days	8.960 kWh/h	4,90
Hungary	1.000 MWh	133 days	7.500 kWh/h	70 days	14.223 kWh/h	8,46
Poland	200 MWh	not specified	Kawerna: 149 kWh/h Sanok: 87 kWh/h Wierzchowice: 83 kWh/h	The withdrawal period isn't specified for this products.	Kawerna: 343 kWh/h Sanok: 248 kWh/h Wierzchowice: 227 kWh/h	5,63
Croatia	50,000 MWh	210 days		144 days		http://www.psp.hr/5-1-prices

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Q48: *Which* ***methodology*** *is used for capacity storage charges/prices?*

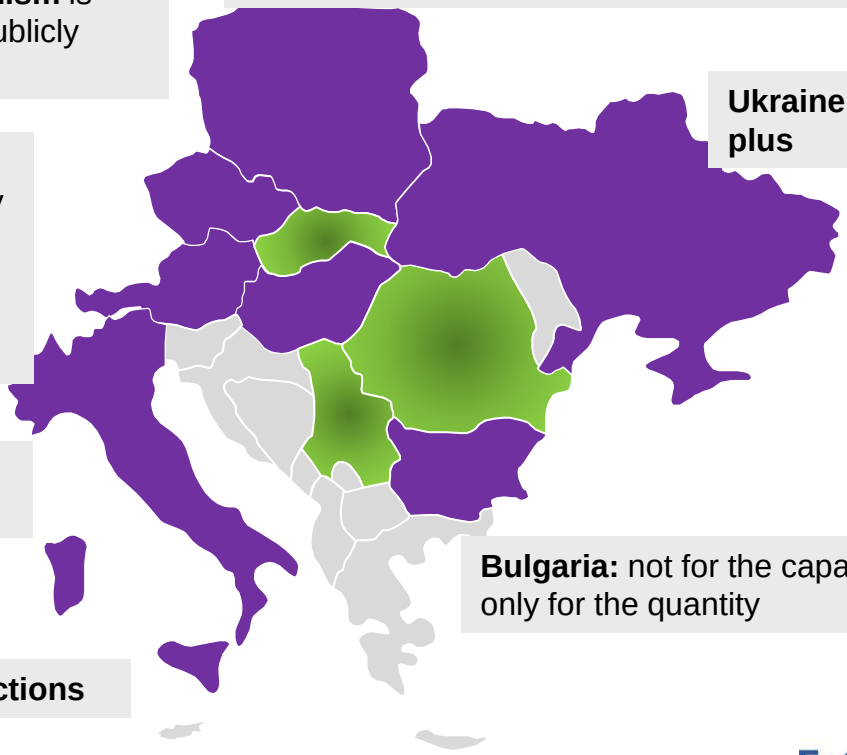
No answer

Poland: Regulated access. Storage services tariff is approved and published by NRA.

Czech Republic: Auction mechanism is used. Results of the auctions are publicly available

Ukraine: cost plus

Austria: As **storage prices are not regulated**, we do not have any information on the price policy of the SSOs. In case of an auction there is no minimum price published, but the SSOs have a price limit on their own, below which they do not allocate the capacity.



Hungary: Regulated access with a **hybrid price cap/revenue cap tariff regulation**.

Bulgaria: not for the capacity only for the quantity

Italy: storage prices are determined by **auctions**

E-CONTROL

Q48a: *Under a* ***negotiated access****, is the* ***price*** *of the storage capacity* ***published?*** ● Yes

Q48b+c: *Under a* ***regulated regime*** *which methodology is used? Please explain if other.*

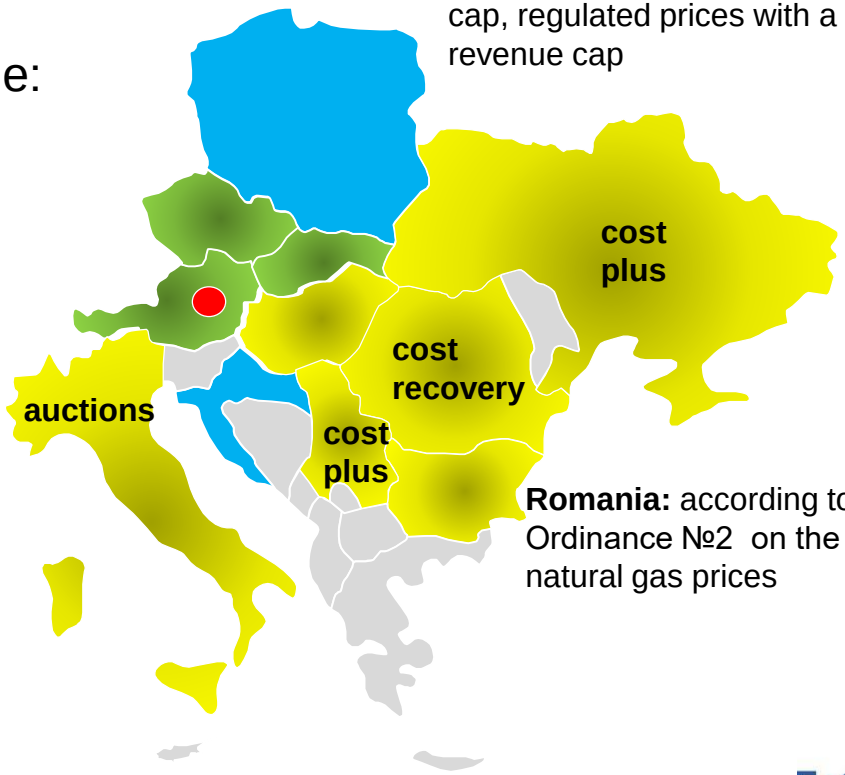
Negotiated access

Methods under regulated regime:

Revenue Cap

Benchmarking

Other



Hungary: mix of price cap/revenue cap, regulated prices with a total revenue cap

Romania: according to the Ordinance №2 on the regulation of natural gas prices

E-CONTROL

***Q50: Who approves** the tariff regulation?*

***Q49:** Duration of **regulatory period**:*

***Q51:** Is there a **regime to compensate the SSO** in case market prices do not cover the regulated costs: (e.g. allocation of losses on transmission tariffs)? If yes, please explain.*

Yes

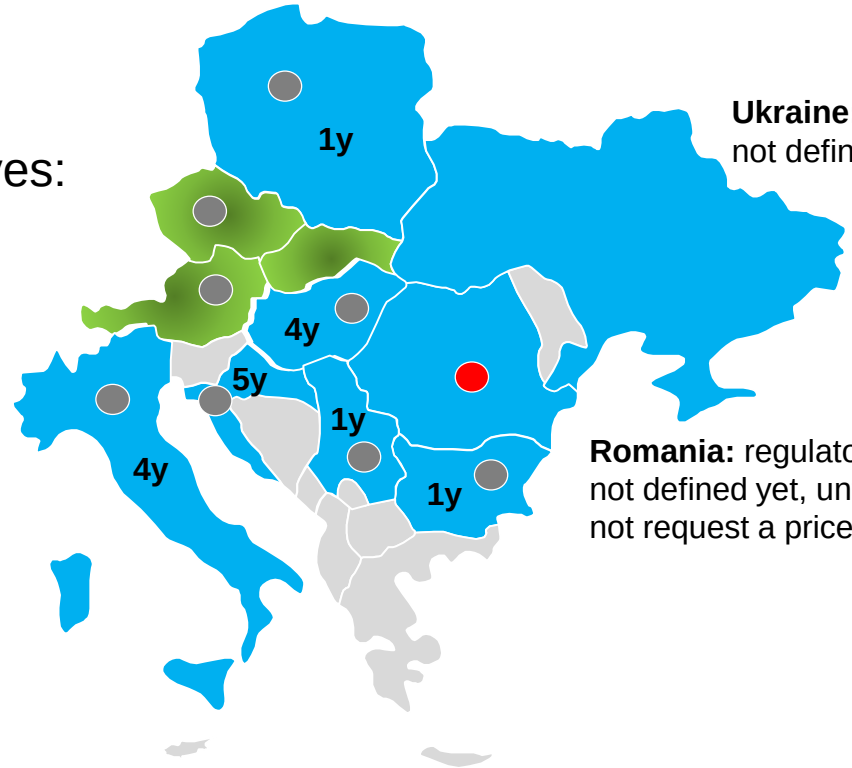
No

Negotiated access

Regulated access, approves:

NRA

Ministries



Ukraine: regulatory period: not defined by the legislation

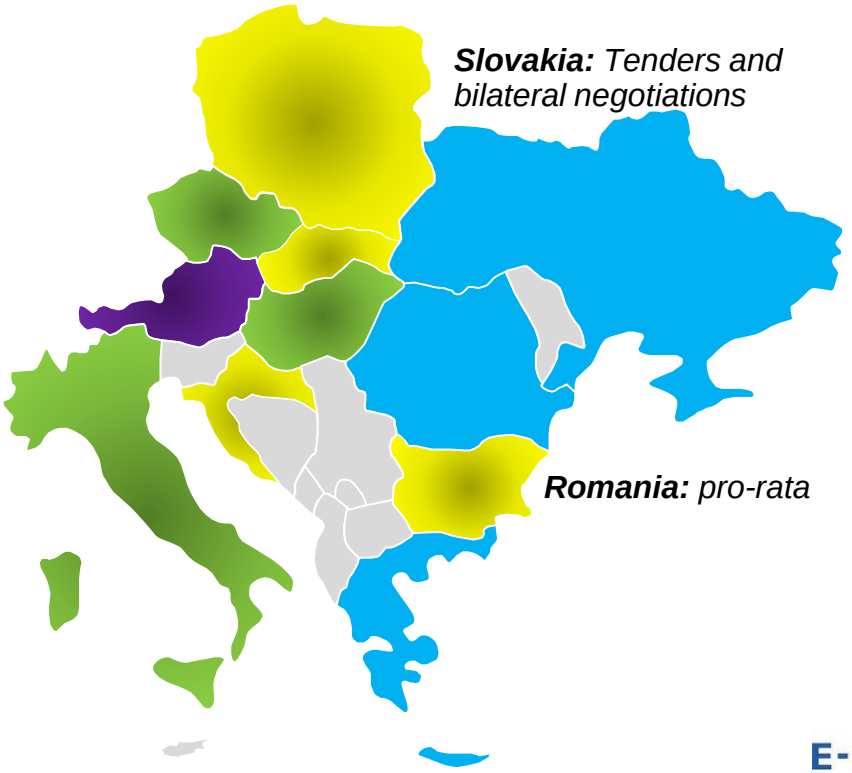
Romania: regulatory period: not defined yet, until the operator did not request a price change

E-CONTROL

Q52+52a: How** is the storage **capacity allocated**? Please explain **if other.

- First come first serve
- Auction
- First come first serve and auction
- Other

***Poland:** First served entities obliged to store gas for the purpose of security (compulsory gas reserves) Then capacity is allocated for the commercial purposes. pro rata (demand > available capacity)*



***Slovakia:** Tenders and bilateral negotiations*

***Romania:** pro-rata*

E-CONTROL

Q53: *In case an* ***auction design*** *is in place, are the* ***results published****?*

Q54: *In case if the results are not published, does the* ***NRA receive information*** *about the auction results?*

Yes

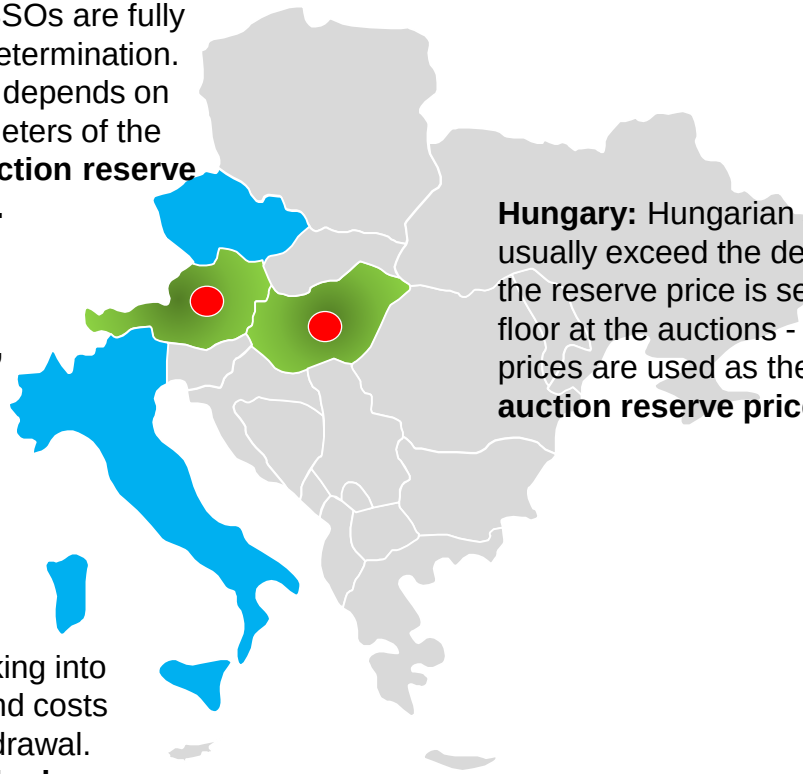
Q55+56: *How is the* ***auction reserve price determined****? Is the auction reserve price* ***published****?*

Yes

No

Czech Republic: SSOs are fully in charge of price determination. The price generally depends on the technical parameters of the offered product. **Auction reserve price is published.**

Austria: no auction reserve price determined and thus not published, NRA gets storage contracts



Hungary: Hungarian storage capacities usually exceed the demands, therefore the reserve price is serving as the price floor at the auctions - the regulated prices are used as the price cap. **No auction reserve price published.**

Italy: Criteria are fixed by NRA taking into account winter /summer spread and costs associated with injection and withdrawal. **No auction reserve price published.**

E-CONTROL