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Webinar on gas storage regulation and security of supply: ACER and CEER analyses

Tuesday, 17 May 2022 / 10:00 – 11:30 CET

Agenda

- **Introductory remarks**
  Pedro Verdelho – CEER Vice President and Chair of ACER and CEER Gas Working Group
- **European Commission intervention**
  - Rémi Mayet, Deputy Head of Unit, DG ENER B.4, Energy security and safety, European Commission

- **Presentation of ACER-CEER work**
  - CEER Reflection Paper on long-term energy storage
    - Benoît Esnault (Vice-Chair, ACER-CEER GWG)
  - ACER Report on national usage and regulations across the EU
    - Juan Lopez Vaquero (Policy Officer - Energy Infrastructure, ACER) and Chris Cuijpers (Advisor, CREG)
  - ACER-CEER note on the revision of the SoS and gas storage Regulation
    - Benoît Esnault (Vice-Chair, ACER-CEER GWG)

- **Panel discussion**
  - Doug Wood, Gas Committee Chair at European Federation of Energy Traders
  - Boyana Achovski, Secretary-General, Gas Infrastructure Europe
  - Ilaria Conti, Head of Gas at the Florence School of Regulation
- **Q&A**
- **Conclusions**
  - Jan Kostevc (Team Leader - Energy Infrastructure, ACER)

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Reinforcing the EU Security of Supply - European Commission's legislative proposal on gas storage

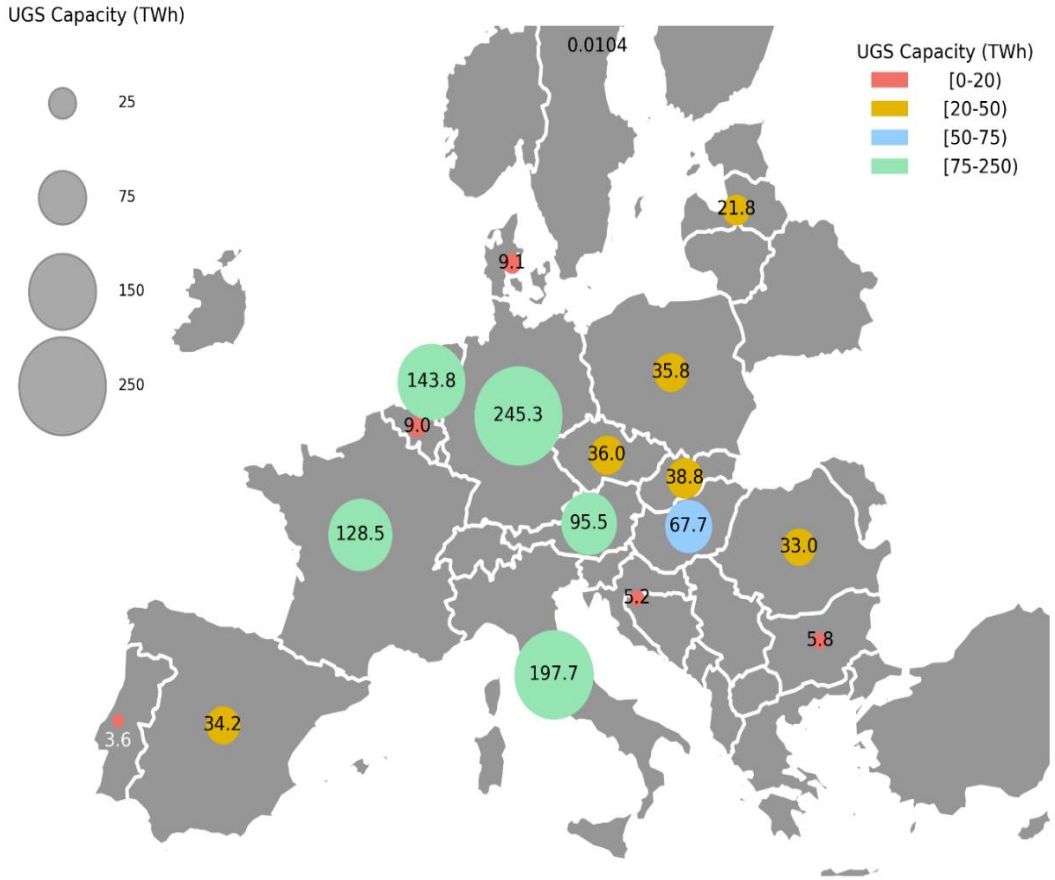
Rémi Mayet, Deputy Head of Unit, DG ENER B.4, Energy security and safety, European Commission

Context of the proposal

- Russian military aggression against Ukraine.
- Underground storage important resource for security of supply and the Union.
- A gap of 10% before/during the winter
- Worries about the summer/winter spread.

Sequence

- *REPowerEU Communication of 8 March announcing a common target.*
- *Legal proposal on 23 March.*
- *European Council of 25 March.*
- *Trilogue 16/17 May.*



Storage proposal – key elements

An enhanced gas SoS architecture based on the following elements:

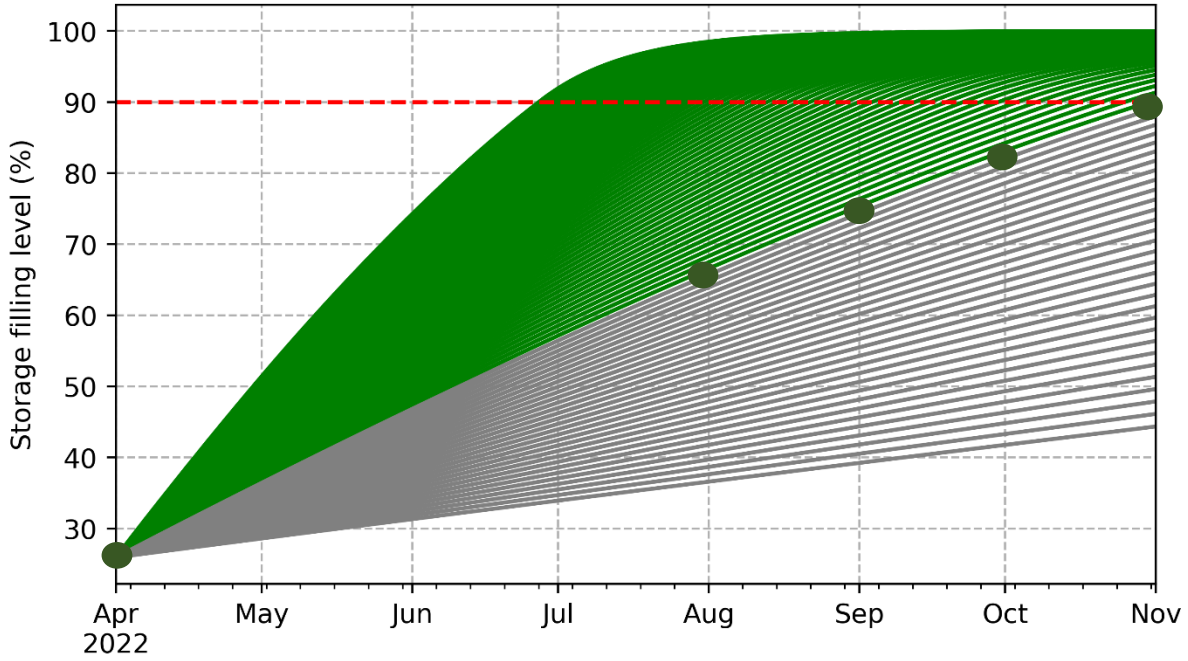
- **a target:** 80-90% in Nov. for 2022/23 onwards — new!
- **a filling trajectory** with control points — new!
- **a set of tools for** Member States to fill storage, inclu — new!
  - including **incentives**
  - deterrent **sanctions** and **fines** — new!
  - **certification** — new!
- a reinforced **monitoring system** — new!

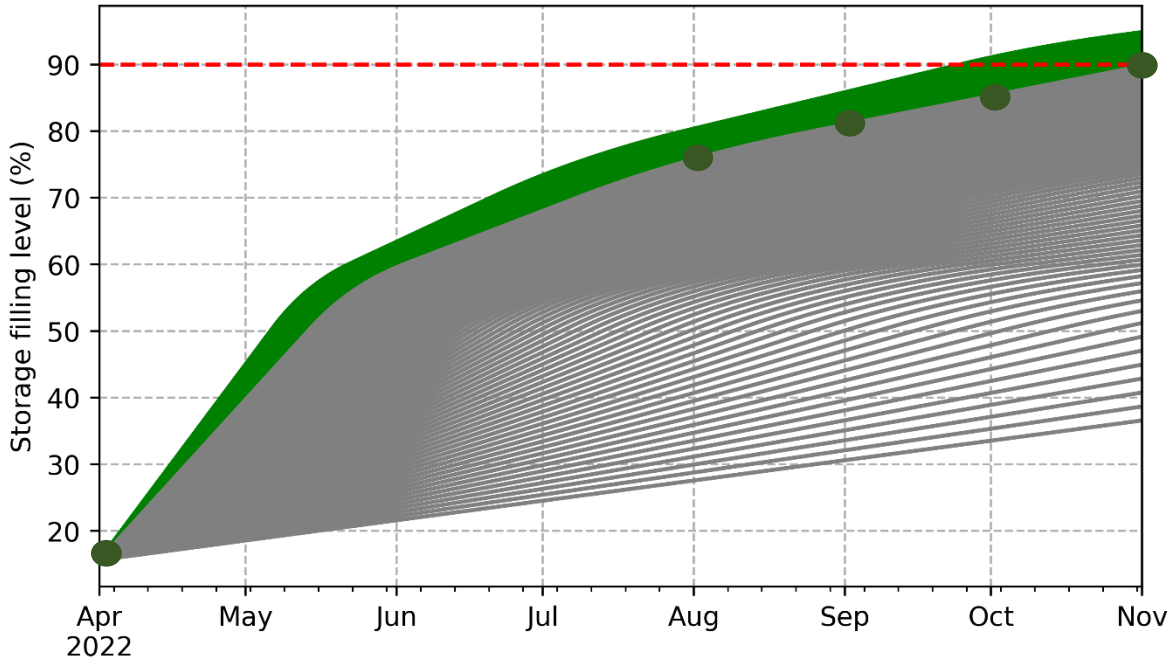
new!

Reaching the November target

Trajectories to monitor with flexibility

Depends on the filling level in the early filling season and the individual injection curve of each Member State





There are MS with higher degree of flexibility (multiple possible trajectories that allow reaching the target) → minimum trajectory with proportional control points

There are Member States with less flexibility → trajectory might not be totally linear.

Storage proposal- Tools for Member States

Member States should take all necessary measures that can be:

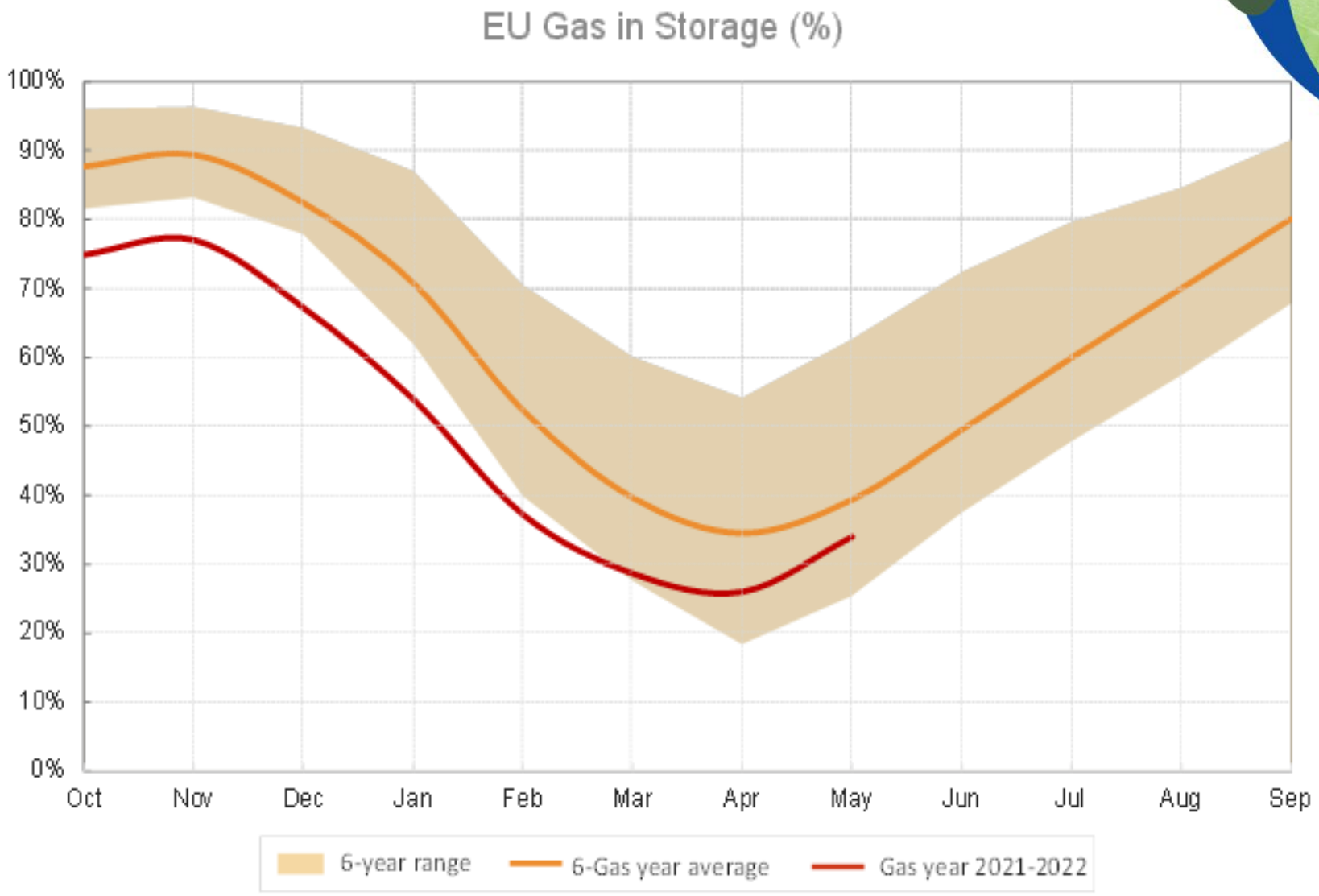
- obligation on storage owners to **tender capacities**
- obligation of gas suppliers for **minimum storage**
- obligation on TSOs to **purchase strategic stocks** for the safe operation of the system
- obligation on capacity holders to **“use it or lose it”**
- using **platforms for the purchase of LNG**
- **incentives / compensation to market participants** for shortfall of revenues

Storage proposal – burden-sharing

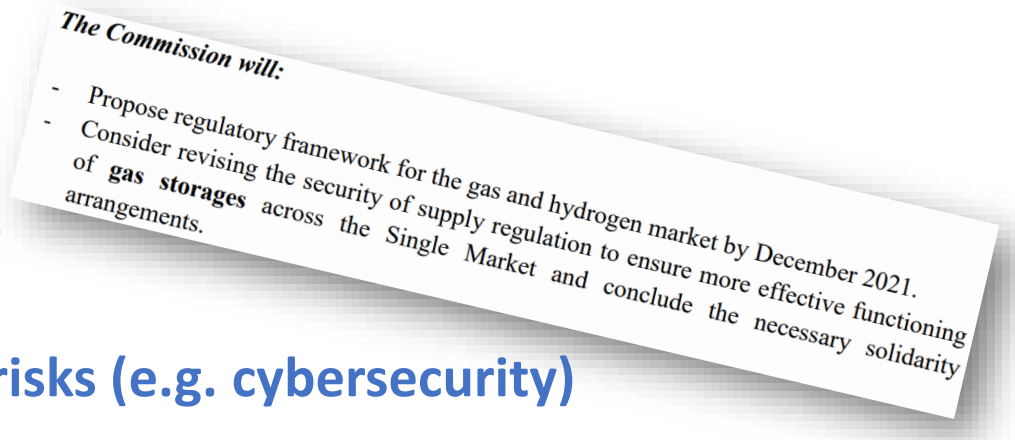
- Insurance - everyone benefits, everyone contributes.
- A fair balance, including for MS with high storage capacities.
- Hybrid targets: capacity and consumption
- Member States without storage:
    - **Store at least 15% of annual gas consumption** in Member States with storage (unless technical limitations - e.g. no connection) *...or (derogation)...*
    - **Other burden-sharing mechanism** can be agreed on bilateral basis based on **protected customers volumes, technical limitations**

Thank you for your attention !

BACK-UP SLIDES


EU Gas in Storage (%)
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
6-year range
6-Gas year average
Gas year 2021-2022

Security of Supply Regulation – Dec. package



The Commission will:

- Propose regulatory framework for the gas and hydrogen market by December 2021.
- Consider revising the security of supply regulation to ensure more effective functioning of **gas storages** across the Single Market and conclude the necessary solidarity arrangements.

- **Adaptation to the energy transition and new risks (e.g. cybersecurity)**

  Extended to renewable gases, future common cybersecurity rules in the gas sector.

- **Making solidarity operational**

  Default arrangements applicable if no bilateral arrangement agreed, ex-post control of compensation.

- **More effective gas storage, enhanced European role of storage**

  Part of mandatory risk assessment, agreed at regional level.

- **Joint procurement of strategic stocks**: enabling or stock-tacking provisions

Security of supply → Energy security & resilience

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CEER Reflection Paper on Regulation of Long-Term Energy Storage from a Sector-Coupling Perspective: Lessons from gas storage

Benoît Esnault (Vice-Chair of the ACER-CEER Gas Working Group)

Purpose of the paper on long-term storage from a regulatory perspective

- Develop an analysis of storage regulation based on the experience of gas storage
- Issue identification
  - Define storage: taking a quantity of energy at a given moment to deliver it later according to needs
  - Storage timing from a sector coupling perspective: continuum between very short term and season (including few days, few weeks)
  - Specific focus on gas storage, including its application to hydrogen
- Relevant parameters to address regulation
  - Technological options and their economic characteristics: economies of scale, contestability
  - Market design and business models
  - Investment and infrastructure planning
- Lessons from national experiences
  - Case studies: Czech Republic, France, Germany, Italy, Spain, Great Britain

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Main topics

Why and how to regulate

- The role of storage in energy systems
- Market vs system value
- Market failures & essential facility concept
- Technological options
- Role of storage in various business models

Findings from gas storage

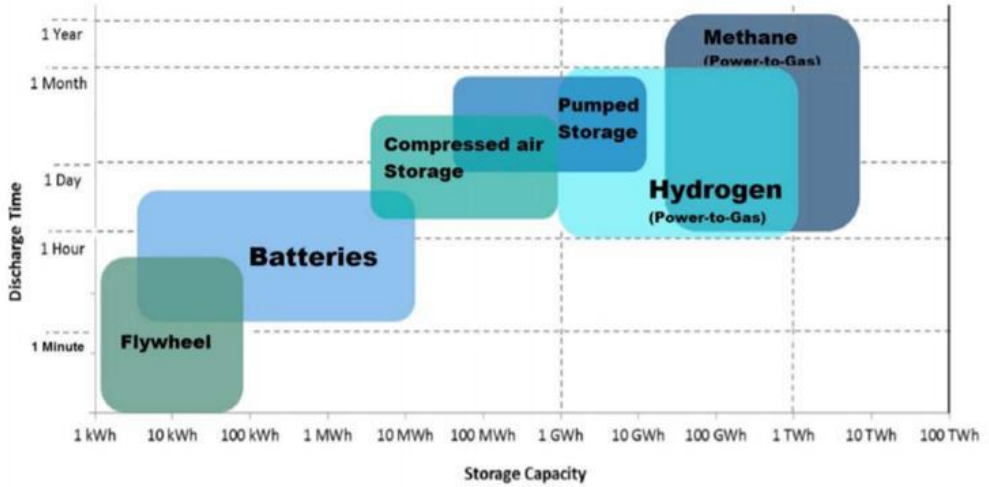
- Diversity of situations
- Third-party access regimes in the EU: regulated or negotiated
- Strategic storage & storage obligations
- Combination of market-based allocation and cost-recovery measures

Recommendations

- Infrastructure development
- SoS criteria to support scenarios
- Support competition
- Regulate when necessary
- Dynamic regulation

Various technological solutions

- There are several technological options
  - From short term to season
  - Small to large volumes
  - Combine storage of electricity and storage of gases (including hydrogen)
- The value of storage
  - **Market value**: short-term and seasonal price spreads (arbitrage purposes or participation in balancing markets)
  - **System value**: insurance value (security and quality of supply), system optimisation (cost savings allowed by storage use), and environmental benefits (avoid vRES curtailment).



Source: School of Engineering, RMIT University (2015)

How to address storage regulation?

- Regulatory intervention has several purposes
  - Address detrimental market failures
  - Grant access to essential facilities
  - Correct insufficient valuation of externalities leading to wrong anticipations from market actors
  - Regulation should avoid distorting competition with other flexibility sources
  - **Deal with gaps between market and system values**
- Objectives of regulation
  - system's management optimisation
  - security of supply
  - supporting competition among energy suppliers
- Role of system/infrastructure operators
  - Grant third party access when relevant
  - Ensure the continuity of supply
  - Question about the link between services and dedicated assets: LNG terminals provide examples of specific services associated with the "internalisation" of storage (bundled products)

Lessons from underground gas storage

- Regulation differs between countries, according to the level of competition and the rôle of storage in the value chain
- Infrastructure planning: co-optimisation of transmission and storage
  - Natural gas upstream cannot provide all the needed flexibility (peak demand above the maximum supply capacity)
  - Underground storage is a necessary buffer in many countries
- Storage secures gas trading; it has been vital for wholesale market development
- TPA regimes
  - Regulated vs negotiated access
- Security of supply (where regulated)
  - In some countries, the measures aim at securing the amount of gas in storages at the beginning of the heating season
  - Storage obligations vs strategic storages
  - Strategies to maximise market-based storage booking and filling (low reserve prices)
  - The cost of security of supply is recovered from consumers benefitting from it (who have the most variable demand profile)

Recommendations

- **Long-term planning:**
  - Storage needs and means should be integrated into the network planning process based on scenarios that incorporate assumptions on supply and demand profiles and the expected level of supply reliability.
- **Existing assets as a lever for RES development:**
  - Relying on existing gas facilities to maintain a high level of security of supply and gradually substitute natural gas with decarbonised solutions, making gas storage a transitional lever to maximise the use of renewable energies by avoiding conversion losses.
- **Identifying the relevance of regulation:**
  - Energy storage may be regulated if there is a risk that individual decisions do not lead to appropriate capacities or volumes of stored energy.
  - If the system's overall efficiency is improved by centralised management of energy storage facilities, then third party access or storage services might be put in place.

Recommendations

- **Storage support to competition**:
  - With the development of intermittency, it may be more difficult for suppliers to meet their obligations to their customers and the system (particularly balancing commitments).
  - Storage could therefore get a renewed importance in terms of competition: in terms of the market players' competitiveness, access to storage may be needed to preserve a level playing field in supply.
- **Measures dedicated explicitly to security of supply:**
  - If there is a risk of under-sizing or insufficient energy storage for security of supply purposes, possible measures, such as strategic storage or guarantees of a minimum level of storage, may be taken.
  - Allocating capacity at market value via well-designed auctions, for instance, could also promote high volumes of stored energy, completing cost recovery from the categories of consumers who benefit from security of supply.
- **Dynamic approach to regulation**:
  - European regulators are aware of the extent of the uncertainty affecting future developments in the European energy system. They, therefore, advocate a dynamic approach to regulation, which allows the regulatory framework to be adapted to market circumstances and industry needs.

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ACER Report on National Storage Usage and Regulations across the EU

Juan Lopez Vaquero (Policy Officer - Energy Infrastructure, ACER) and
Chris Cuijpers (Advisor, CREG)

Aim, Scope, Data Sources

Aim

- Get an updated picture of gas storage use and regulation in EU-27: collect factual updated information for ongoing debate on storage, for info sharing
- Verify data used in ENTSOG WSO 2021-2022 (1 October 2021)
- Complements the CEER paper on LT storage

Scope

- General indicators on storage (availability, use, types and location)
- Type and description of storage regulation
- Validation of ENTSOG WSO and AGSI+ data
- Storage obligations (capacity booking obligations, supplier obligations, strategic storage)
- Monitoring and compliance with obligations
- Tariff regime, capacity products
- Ongoing national discussions to revise storage regulation/obligations

Sources

- 18 NRAs (100% coverage of MS with UGS): Austria, Belgium, Bulgaria, Croatia, Czechia, Denmark, France, Germany, Hungary, Italy, Latvia, Netherlands, Poland, Portugal, Romania, Slovakia, Spain & Sweden. Sixteen questions, 30 pages of NRA input!!
- AGSI+, GIE and GSE data

Main policy-relevant messages

- **Type of storage regulation varies:** 11 Member States have opted for regulated third-party access rules and **regulated** tariffs. In comparison, in the other 7 Member States, access to storage is **negotiated** between users and operators.
- **Book and usage of storage**: On 1 October 2021, the booked storage capacity in Austria, Germany, the Netherlands and Slovakia was significantly above the actual used capacity due to low filling levels of storages used or controlled by Gazprom.
- **Gas in storage obligations varies**: 11 Member States have some storage obligations. In 7 Member States, there are no storage obligations at all.

Report published on 7 April 2022
Downloadable at: https://www.acer.europa.eu/events-and-engagement/news/acer-reports-national-gas-storage-usage-and-regulations-across-european

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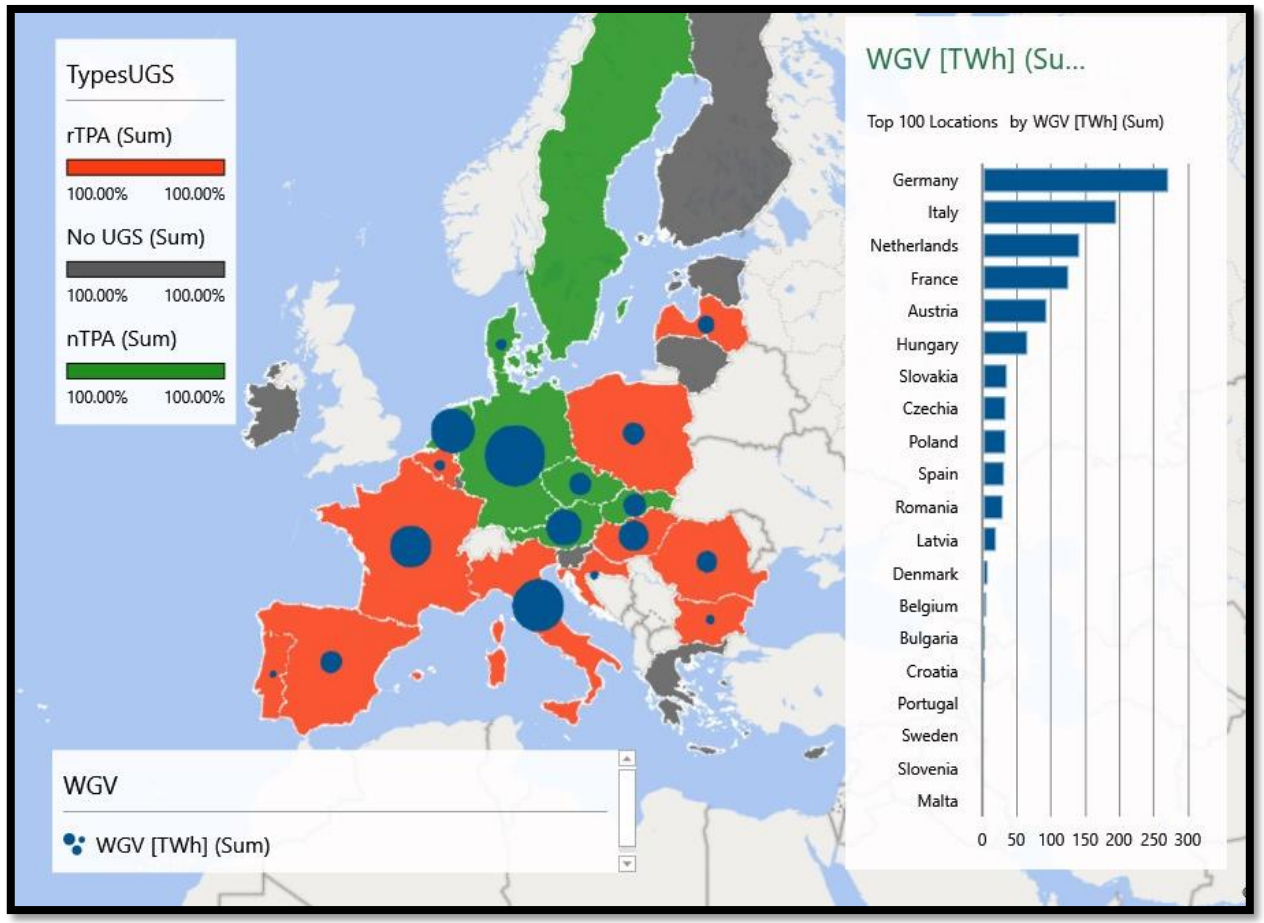
General Storage Indicators

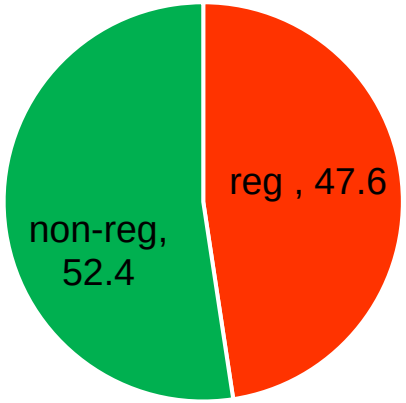
- On 1 October 2021, the average filling level amounted to 72%, representing nearly 20 % of the EU-27 annual gas consumption.
- The total EU-27 storage capacity ('WGV') is approximately 27% of the EU-27 annual gas consumption.
- Two MSs have a larger storage capacity than their national gas consumption (Austria and Latvia), which is used at the regional level (e.g., serving mainly Southern Germany and the Baltics, respectively).
- The 9 MS without storage represent less than 5% of EU-27 annual gas consumption.

NRA from MS	CON -Annual Gas Consumption [TWh]	WGV (WGV)* [TWh]	GIS [TWh]	GIS/WGV [%]	WGV/CON [%]	GIS/CON [%]
Austria	93.29	95.48 (95.2)	51.13	53.6%	102.3%	54.8%
Belgium (**)	193.50	9.00 (9.0)	7.85	87.2%	4.7%	4.1%
Bulgaria	32.50	6.27 (10.6)	4.42	70.5%	19.3%	13.6%
Croatia	33.62	5.22 (5.5)	4.70	90.0%	15.5%	14.0%
Czechia (***)	94.03	36.07 (44.4)	27.89	77.3%	38.4%	29.7%
Cyprus	0.00	0.00	0.00			
Denmark	31.35	9.08 (10.5)	7.50	82.6%	29.0%	23.9%
Estonia	4.50	0.00	0.00			
Finland	25.97	0.00	0.00			
France	451.10	128.46 (136.4)	118.56	92.3%	28.5%	26.3%
Germany(****)	962.12	274.72 (266.4)	156.31	56.9%	28.6%	16.2%
Greece	63.14	0.00 (3.9)	0.00			
Hungary	113.15	67.70 (69.6)	56.66	83.7%	59.8%	50.1%
Ireland	58.75	0.00	0.00			
Italy	750.57	197.73 (244.7)	169.33	85.6%	26.3%	22.6%
Latvia	11.73	21.80 (24.2)	17.41	79.9%	185.8%	148.4%
Lithuania	26.23	0.00	0.00			
Malta	4.11	0.00	0.00			
Luxemburg (**)	8.09	0.00	0.00			
Netherlands	408.11	143.81 (144.6)	84.10	58.5%	35.2%	20.6%
Poland	219.99	35.79 (49.1)	34.47	96.3%	16.3%	15.7%
Portugal	66.81	3.57 (3.6)	1.78	49.9%	5.3%	2.7%
Romania	127.35	32.99 (45.5)	23.94	72.6%	25.9%	18.8%
Slovakia	52.64	38.75 (47.1)	27.87	71.9%	73.6%	52.9%
Slovenia	9.71	0.00	0.00			
Spain	360.83	34.25 (34.2)	25.09	73.3%	9.5%	7.0%
Sweden	14.57	0.01 (0.1)	0.01	66.3%	0.1%	0.0%
EU-27 TOTAL	**4217.76**	**1140.70 (1244.5)**	**819.02**	**71.8%**	**27.0%**	**19.4%**

Type of storage regulation



EU-27 storage capacity (WGV) in %



-Regulated TPA rules and regulated tariffs in 11 MS
-Negotiated access between the storage users and SSO in 7 MS

Regulated (r-TPA) vs. negotiated (n-TPA) third-party access storage regimes, storage working gas volume.

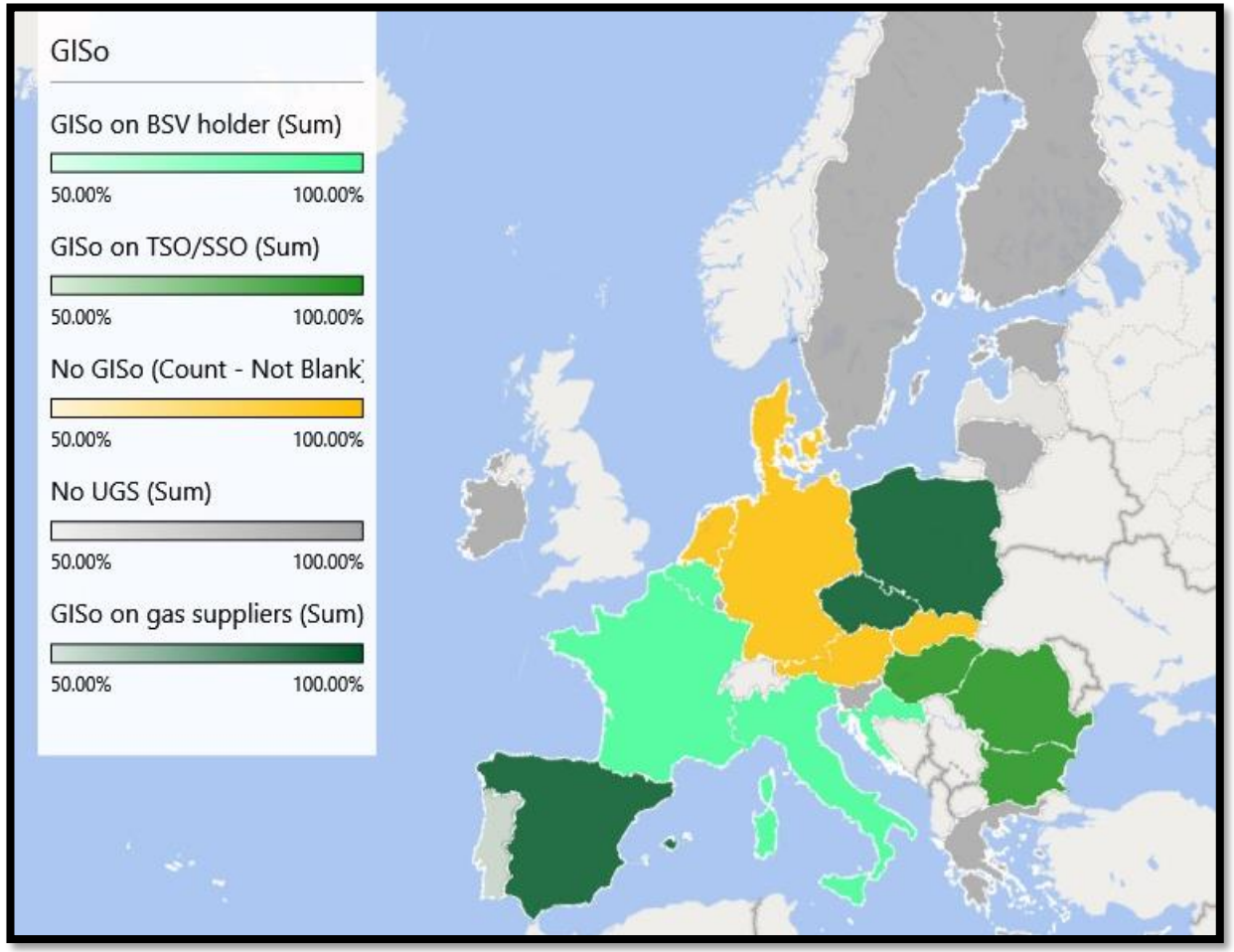
Booked Storage Volumes (BSV)

- On 1 October 2021 => booked storage capacity in AT, DE, NL, PT, and SK was significantly above the actual used capacity.
  - AT, DE, NL and SK explained by low filling levels of GP booked/ controlled UGS
  - In PT, not so atypical (little seasonality in households, gas-to-power higher in summer)
- UIOLI rules to release booked but not used storage capacity applied in some MSs
- MSs applying storage obligations on gas suppliers impose indirectly the booking of corresponding UGS capacity

		booked storage	gas in storage	booked but not used capacity
NRA from MS	BSV	BSV/WGV [TWh]	GIS/WGV [%]	anti-hoarding rules (see Q.10 for country details)
Austria	94,5	99,0%	53,6%	No
Belgium	9,0	99,6%	87,2%	yes, UIOLI
Bulgaria	3,7	58,2%	70,5%	
Croatia	5,2	100,0%	90,0%	
Czechia	28,3	78,7%	77,3%	No
Cyprus				
Denmark	7,6	83,1%	82,6%	
Estonia				
Finland				
France	128,5	100,0%	92,3%	yes, UIOLI
Germany	265,8	96,7%	56,9%	no
Greece				
Hungary	67,7	100,0%	83,7%	yes, UIOLI
Ireland				
Italy	179,3	90,7%	85,6%	yes, UIOLI
Latvia	18,9	86,7%	79,9%	No
Lithuania				
Malta				
Luxemburg				
Netherlands*	136,4	94,8%	58,5%	No
Poland	34,6	96,8%	96,3%	
Portugal	3,1	87,7%	49,9%	No
Romania	23,8	72,2%	72,6%	Yes
Slovakia	38,8	92,6%	71,9%	No
Slovenia				
Spain	25,4	74,3%	73,1%	No
Sweden	0,0	0,0%	66,3%	
EU-27 TOTAL	**1070,5**	**93,9%**	**72,0%**	

Gas in Storage (GIS) obligations

- 11 NRAs reported the existence of gas in storage (GIS) obligations to:
  - to inject/keep gas volumes in storage sites/systems related to sales/customer types
  - to respect minimum levels (technical requirements, anti-hoarding anticompetitive measures, or security of supply purposes)
- 7 NRAs (AT, DK, DE, LV, NL, SK and SE) inform of no storage obligations.
- Different models for:
  - monitoring compliance with GIS obligations
  - addressing non-compliance (where applicable)



Storage tariff regime

Different tariff and access regimes coexist:

- 11 NRAs report **regulated access** to storage, 7 NRAs opted for a **negotiated access**
- Negotiated access based on reasonable and non-discriminatory technical and economic terms, with reference tariffs published in most cases.
- **Tariff value setting**: regulated/negotiated tariffs are generally the result of an auction.

Q12: What is the storage tariff regime in place? Q13. How are tariffs set?:

Definitions partly sourced from the CEER report on barriers for gas storage product development, April 2017 (link)

1. Regulated: regulated tariffs fixed by an administrative decision of a regulatory or governmental body.
2. Negotiated: negotiated tariffs between facility owner and storage user, no administrative intervention. Indicative prices may be published.
3. Indexed: the tariff is linked to the summer/winter price spread
4. Auction: the value of the tariffs results from an auction
5. Other: none of the options above

Please describe the main considerations you deem relevant. In case that different tariff regimes / pricing methodologies are applied per distinct SSOs please inform about all options.

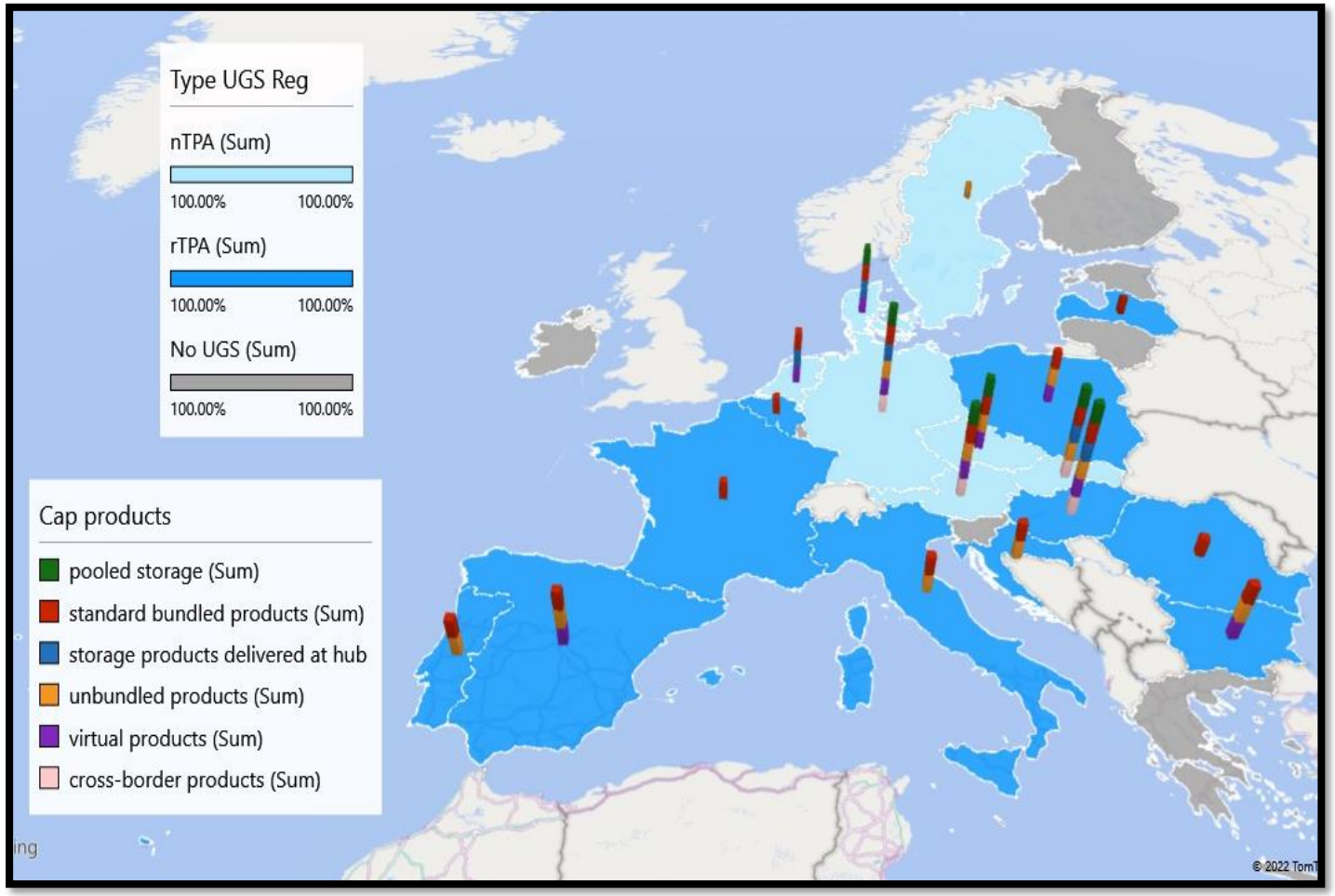
		How are tariffs set?					
NRA from MS	Description of storage tariffs	1. Regulated	2. Negotiated	3. Indexed	4. Auction	5.others	Description of tariff setting
Austria	negotiated tariff with a price-cap		X	X	X		2, 3 and 4; and published prices by SSOs; links for OGS Gas Storage, RAG Energy Storage, Uniper Energy Storage, Astroa, GSA see https://www.gie.eu/transparency/gse-transparency-template/
	reference price is the regulated tariff.						
Sweden	Negotiated tariff with a price-cap		X		X		Negotiated or resulting from an auction Please add link to SSOs tariffs' website: https://www.swedegas.se/vara_tjanster/tjanster/lagring/villkor_och_avgifter
18		**11**	**6**	**1**	**13**	**0**	
		61%	**33%**	**6%**	**72%**	**0%**	

Storage Capacity Products

Type of capacity products

-17 (all but one) offer **standard bundled** products
-12 offer **unbundled products**.
-9 **virtual products**
-6 storage **products delivered at the hub** (Austria, Denmark, Germany, Hungary, Netherlands, Slovakia).
-5 **pooled storages** (Czechia, Denmark, Germany, Hungary, Slovakia)
-4 **x-border products** (Austria, Germany, Hungary and Slovakia)

10 MS offer three or more types of capacity products



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ACER-CEER note on the revision of the Security of Supply and gas storage Regulation

Benoît Esnault (Vice-Chair of the ACER-CEER Gas Working Group)

ACER and CEER approach to the proposal for a regulation on storage

- Advice the Commission and policymakers based on European Energy Regulators' experience
  - Some Member States have implemented storage obligations or strategic stocks for a long time
  - They have experimented with some of the complexities of storage filling targets

- Objective
  - Promote workable technical options
  - Favour market-based procedures
  - Minimise the use of public funds

General comments on the Regulation project

- In terms of method
  - Measures must be exceptional, temporary and specifically targeted to the current crisis
  - Intervention should be proportionate to the goals and should avoid distorting the market where it is able to fulfil the needed level of gas in storages
  - The EU institutions should find a proper balance between top-down and bottom-up approaches

- General principles
  - Filling targets should apply a demand-based, rather than capacity-based rationale
  - For 2022, apply simple measures (but realistic), taking national specific characteristics and constraints into account
  - For 2023 and beyond: better estimate storage needs on the basis of several parameters (LNG and diversity of supply, demand seasonality, interconnection capacities)
  - Implement an EU wide monitoring of storage filling levels and of prices paid for those fillings

1. EU Storage filling requirements

- For 2022, the 80% filling target is a pragmatic option that helps safeguarding existing storage booking contracts.
- For 2023 and after, CEER and ACER recommend:
  - Determine the EU filling target and filling trajectories according to the level of expected demand
  - 90% of the working gas volume corresponded to 25% of the 2020 EU gas consumption, this ratio could serve as a basis for setting the EU filling target starting from 2023.
  - Regional vulnerability assessments should be carried out to calculate the appropriate volumes of gas to be stored on 1 November.
  - Filling targets must be known before storage capacity is allocated.
- A proper monitoring system, covering both volumes (filling levels) and prices, must be in place as of day 1.

2. National storage obligations and their fulfilment

- For 2022, national filling requirements should correspond to 22% of the average annual consumption
  - corrected according to parameters such as demand seasonality, share of LNG, dependence on Russian supplies, physical constraints in terms of access to storage capacities.
- At national level, storage targets could be translated into filling obligations per booked capacity and/or booking obligations according to suppliers' customer portfolio.
  - Obligations must take into account the market situation, namely the constraints and risks associated to purchasing gas for storage purposes
  - Obligations should be accompanied by support schemes where financial risks would prevent gas suppliers from storing gas.
- Where individual storage actions by gas suppliers are not sufficient
  - Storage filling by third entities (TSOs, SSOs or mandated entities)
  - The usage of such volumes should not interfere with the market.

3. National filling trajectories

- For 2022, filling trajectories should be
  - Indicative (non-binding)
  - Determined in liaison with national competent authorities for security of supply.

- Filling trajectories should take into account the technical characteristics of storage facilities
  - Specific approach for non-seasonal storage (and LNG)

- National filling trajectories may not necessarily be applied to individual suppliers
  - Assessed in an aggregated way.
  - Too rigid storage products could reduce their value and endanger market players' ability to effectively fulfil their obligations.

4. Burden sharing provisions and cross-border arrangements

- The current business model for gas storage already follows a logic of a fair allocation of costs based on a benefit-received principle.
- Member States without gas storage can impose gas storage obligations on suppliers in relation to gas demand of their protected customers and essential services in other EU Members States, to be stored abroad.
- Cross-border obligations for market players should take into account the actual access to storage capacities (technical and economic aspects)
- In the longer term, a bottom-up approach based on the (regional) risk analyses carried out in the framework of the application of the Security of Supply Regulation could be used to address cross-border storage use and targets.
- If the aggregated corrected national targets were below 80% of EU storage capacity, dedicated collective procedures should be implemented to fill the gap

5. Financing issues and price volatility

- Financial support to storage obligations should be addressed as an insurance policy
  - Protect market players from risks relating to high gas prices and negative seasonal spreads.
- Contracts for difference (neutralising the risk of selling at loss) or negative storage auction prices should be the privileged means.
  - CFD could replace collaterals
  - Negative storage auction price could consist of negative reserve price with ascending clock auction or descending clock auctions
- In case of insufficient bookings, storage by non-market entities should be carried out without interfering with the market, in particular in the withdrawal phase.
- Cost of support mechanisms for national obligations may be covered from levies or taxes collected from domestic consumers/taxpayers.

6. Other topics

- Transmission tariff discount of 100% for storage
  - The existing legislation already allows for tariff discounts
  - Tariff discounts could be compensated by premiums paid by those who benefit from storage

- Deadline for the certification of gas storage facilities
  - Certification procedures are lengthy,
  - Delays should better take into account the time needed to carry out the necessary investigations

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Panel discussion

Ilaria Conti, Head of Gas at the Florence School of Regulation

Boyana Achovski, Secretary General, Gas Infrastructure Europe

Doug Wood, Gas Committee Chair at European Federation of Energy Traders

FLORENCE SCHOOL OF REGULATION

ROBERT SCHUMAN CENTRE

A simple implementation of pan-EU storage obligations

Ilaria Conti, FSR
Head of Gas, Hydrogen and Decarbonisation area

www.eui.eu

Our proposal: auctioning of gas storage obligations

Features

- Filling obligation (volumes) set at EU or MS level
- On shippers, who maintain gas ownership
- Simultaneous multi-round auction per market areas.
- Negative prices bidding allowed.
- Burden sharing among MS based on pre-determined solidarity agreements (benefits and accessibility)
- If no emergency → BAU
- Secondary trading allowed

Product

- Gas capacity (GW/h) for a certain thermal year
- For a given e-e area
- Pre-defined filling level obligations at selected points in time
- Same e-e tariff applying to all

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Not reinventing the wheel

Why such a market-based mechanisms is to be preferred:

- **Known to the market**: easier and faster implementation
- **Easy monitoring**: instruments are already available
- **Modest risk**: UIOLI provisions as soon as any missing injection is detected
- **Flexible mechanism**: additional objectives/further constraints can be added

FSR agrees on storage filling obligations, but we recommend that a target storage filling level is achieved and maintained with the smallest possible impact on the functioning of the internal gas market

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Thank you for your attention!

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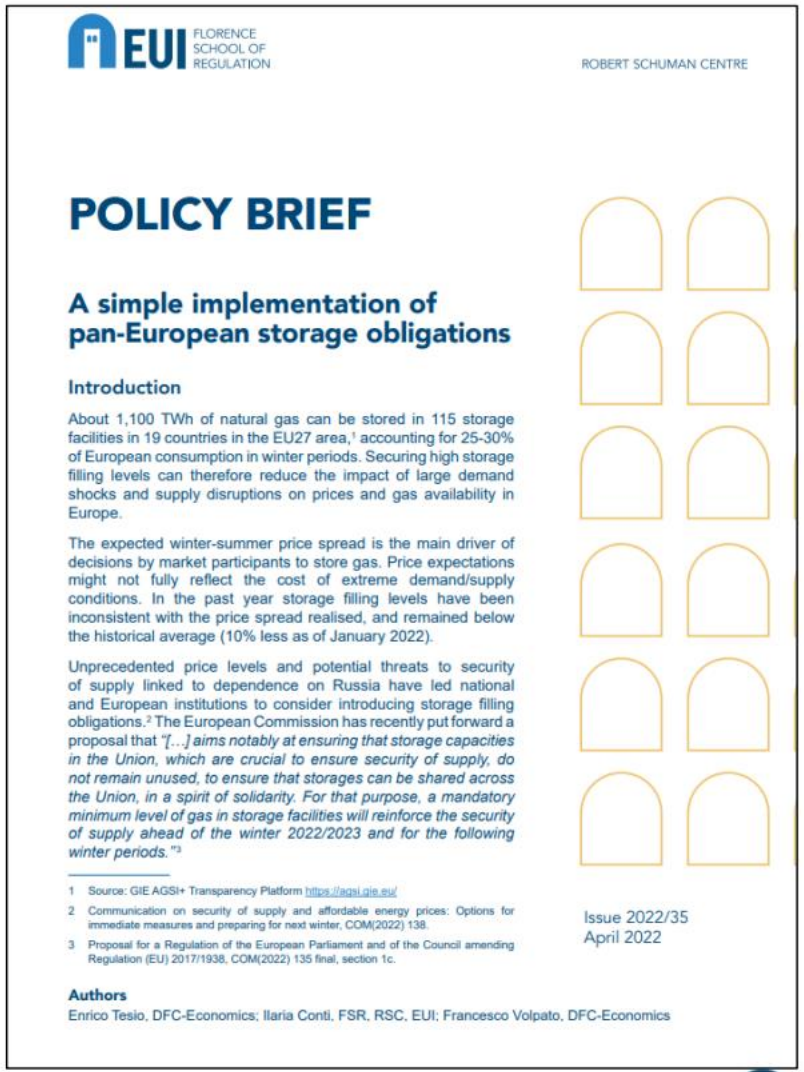

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POLICY BRIEF

A simple implementation of pan-European storage obligations

Introduction

About 1,100 TWh of natural gas can be stored in 115 storage facilities in 19 countries in the EU27 area,[1] accounting for 25-30% of European consumption in winter periods. Securing high storage filling levels can therefore reduce the impact of large demand shocks and supply disruptions on prices and gas availability in Europe.

The expected winter-summer price spread is the main driver of decisions by market participants to store gas. Price expectations might not fully reflect the cost of extreme demand/supply conditions. In the past year storage filling levels have been inconsistent with the price spread realised, and remained below the historical average (10% less as of January 2022).

Unprecedented price levels and potential threats to security of supply linked to dependence on Russia have led national and European institutions to consider introducing storage filling obligations.[2] The European Commission has recently put forward a proposal that *"[…] aims notably at ensuring that storage capacities in the Union, which are crucial to ensure security of supply, do not remain unused, to ensure that storages can be shared across the Union, in a spirit of solidarity. For that purpose, a mandatory minimum level of gas in storage facilities will reinforce the security of supply ahead of the winter 2022/2023 and for the following winter periods."*[3]

1 Source: GIE AGSI+ Transparency Platform https://agsi.gie.eu/

2 Communication on security of supply and affordable energy prices: Options for immediate measures and preparing for next winter, COM(2022) 138.

3 Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) 2017/1938, COM(2022) 135 final, section 1c.

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Possible alternatives to the model

- Price risk allocation: adjustment ex-post → helps in case of exceptional high price uncertainty
- Who participates in the auction → obligation on any shipper importing gas in the EU OR any retailer supplying EU consumers. More expensive.
- EU vs MS set obligation → bilateral agreements among MS. More (tracking gas?) and inefficient (not possible to swap capacities in case of need)
- Bundling storage with x-border transportation capacity in a certain e-e area → easier for the shipper
- Further restrictions (i.e. origin of gas stored, diversification etc)

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Gas Infrastructure Europe

Gas storage regulation and security of supply

17 May 2022

ACER-CEER Workshop

Online

Setting the scene

Different underground gas storage regulatory regimes

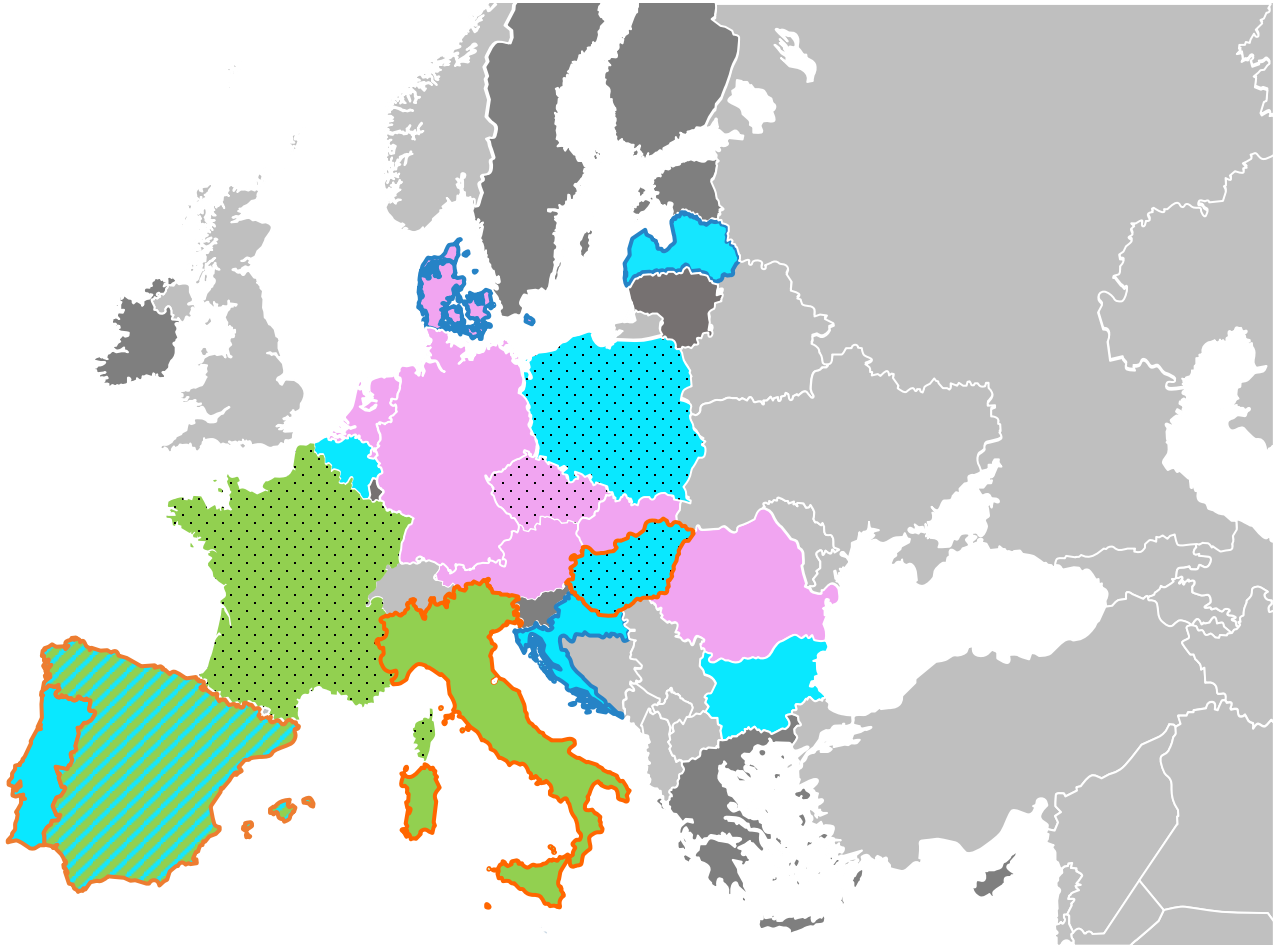
Storage Third Party Access (TPA) regimes

- Negotiated TPA
- Regulated TPA with regulated tariffs
- Regulated TPA with market-based pricing
- Regulated TPA combining regulated tariffs & market-based pricing

Different storage security of supply options

- Storage obligation
- Strategic storage
- TSO obligation

- No operational UGS



- This map represents the different regulatory regimes for underground gas storage in the European Union before the release of the European Commission's proposal for regulation revising the gas security of supply regulation and natural gas regulation on 23 March 2022.
- Some EU Member States (e.g. Austria, Czech Republic, Germany) already implemented a new storage regulation as of April 2022.

European Commission's legal proposal on gas storages
GIE final amendments

Mandatory filling target and filling trajectory

- **Minimum filling requirements timely in periods of crises**
  - For the 2022-2023 winter, need for ambitious targets while taking into account that the storage year has already started in terms of booking capacities (**no revision of contract clauses**)
  - **Efficient burden-sharing mechanism** to consider national circumstances and be articulated around a number of factors: domestic gas demand vs technical storage capacities, alternative supply routes, interconnection capacity between countries

- **Filling trajectory provides guarantee**
  - More flexibility to fill the storage sites based on **technical characteristics** (fast-cycle / seasonal storages)
  - **Number of intermediary targets** needs to be **limited** to enable storage users to benefit from arbitrage value
    - To reflect extraordinary situation for 2022 and implementation time, one intermediary target in **September**
    - From 2023 onwards, three intermediary targets in **February, September and December**

Incentivising injections before next winter

- **As a key principle, market-based pricing to allow for an efficient allocation of storage capacities along with a set of regulatory measures**
  - To compensate for missing values
  - To ensure long-term sustainability of the storage market
- **Zero tariff for storage transports as a supportive measure**
- **Financial support, before state interventions on strategic stock are released**
- **Certification procedure for SSOs needs to be clarified on certain criteria**
  - Consider obligations and requirements of an SSO according to the existing Gas Directive and Gas Regulation

Gas storage and security of supply

- Global market is short of gas; storage obligations do not remove the shortfall, though they provide a cushion to manage the risk of a sudden disappearance of supply and optionality around timing of interruptions.
  - ✓ A price signal remains the most efficient way to attract imports and allocate scarce gas resources.
  - ✓ Threats of price caps may worsen the shortage and lead to greater imposed curtailment
  - ✓ Market is already acting to fill storage

- Storage provides flexibility as well as security, and security depends on more than storage
  - ✓ Don’t isolate large amounts of flexibility in the name of security
  - ✓ Leave salt caverns available as important for smoothing imbalances and prices
  - ✓ Don’t overprescribe obligations; ensure that filling can still respond to external circumstances

- Storage has regional benefits
  - ✓ Burden sharing, but different MS have different needs and exposures– one size does not fit all
  - ✓ Better access to cross border capacity – fix bottlenecks AND improve auction rules

- The dedication of working capital to hold volumes of gas in storage may reduce availability for other measures.
  - ✓ Protect liquidity in forward markets
  - ✓ Ensure incentives are market-reflective

Let markets deliver security at the lowest price

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Q&A

Please submit your questions with your name and affiliation via the chat function.

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Conclusions

Jan Kostevc (Team Leader - Energy Infrastructure, ACER)

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Thank you!

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