

European Union / Instrument for Pre-Accession (IPA) Energy Sector Technical Assistance Project

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2013 ENERGY SECTOR PROGRAM PHASE-2 PROJECT
Workshop on gas capacity auctions

EU IPA13/CS-02.a

Energy Market Development

9th – 11th September, Ankara

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Agenda

For the rest of Tuesday 10 September

- Auctions of storage capacity.
- Buying storage capacity
 - ❑ The commercial players' point of view.
- Selling storage capacity
 - ❑ The storage operators' point of view.
- Exercise:
 - ❑ Be a commercial player – buy capacity.
 - ❑ Be the storage operator – run an auction.
 - ❑ Be a commercial player – calculate your profit/loss.

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Auctions of gas storage capacity

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Why buy gas storage capacity? If you are a commercial player

- Answer: if
 - ❑ The current spot prices for gas are low.
 - ❑ You expect the future spot prices for gas will be high.
 - ❑ You can get storage capacity at a "reasonable" price.
- Then:
 - ❑ Buy now!
 - ✓ Buy gas storage capacity and buy gas.
 - ❑ Sell later!
- The recipe for getting rich is this:
 - ❑ Buy low – sell high.
- Getting rich is easy...

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Gas storage operator – 1

Selling gas storage capacity

- EU: we do not have a strict set of rules dictating how this type of capacity should be sold.
- The prices for storage capacity are mainly dependent upon the market players' estimate of the future differences between gas summer prices and gas winter prices.
- Until recently, the storage operators had a problem:
 - ❑ Due to low price differences between summer & winter gas prices, the price for storage capacity was low.

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Gas storage operator – 2

Denmark as a case

- Denmark has two underground storage facilities.
- In total, they can store about 0.8 billion m³.
 - ❑ This is about 25% of the annual Danish-Swedish gas consumption.
- The two storages are operated by subsidiaries of the Danish gas TSO.
- You'll find a lot of information on this at <https://gasstorage.dk/>

Salt dome

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Gas storage operator – 3

Selling storage capacity in the EU



- At the end of the first decade of this century, in Western Europe, virtually all gas storage capacity was sold at auctions.
- Storage was a scarce resource
 - ❑ So auctions was the way of allocating this scarce resource.
- However, the situation changed:
 - ❑ Until last winter, the spread between summer prices and winter prices was typically less than 1.5 €/MWh.
- This caused the demand for gas storage to collapse.
- There was an oversupply of gas storage in Western Europe.
- Therefore, the storage capacity was sold partly at auctions and partly via bilateral agreements.
- At the bilateral agreements, the gas storage operators sell storage capacity to specific market players.

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Gas storage operator – 4

Selling storage capacity in the EU



- This bilateral way of selling the gas storage capacity is allowed in EU
 - ❑ As gas storage access is not regulated as tightly as gas grid access.
 - ❑ For the grid access, there are strict rules requiring equal treatment of all market players.
- In principle, selling the gas storage capacity at auctions would also ensure equal treatment of all market players
 - ❑ However, until recently, the problem for the gas storage operators was that the prices at the auctions could be close to zero...

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Gas storage operator – 5



Selling gas storage capacity in Denmark (and the rest of the EU)

- For the Danish gas storage operator, in order to cover the costs of operation the gas storages (and cover the capital costs), the spreads between winter prices and summer prices should be at least 4 €/MWh.
- With the summer-winter spreads we had until recently, the gas storage operator had a problem.
- However, due to the warm winter 2018-2019, the gas storage facilities in EU contained lots of gas at the end of the winter.
- This gave EU very low prices for the summer 2019.
- In turn, this gave higher summer-winter spreads for the gas prices.
- Currently, EU's gas storage operators are in-the-money...

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Mandatory purchase of gas storage capacity



- In some EU Member States (e.g. France), a gas retailer must buy gas storage
 - ❑ However, this is not the case in all Member States.
- I do not recommend this practice
 - ❑ As it tends to reduce the competition at the gas retail market.

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Team exercise

Buying storage capacity

Running a storage auction



- Please refer to the paper with the exercise.
- For task no. 1 and no. 3, you have the role of a commercial player
 - ❑ You work for the commercial company GasTrade.
- For task no. 2, you have the role of the storage operator
 - ❑ You run an auction.
 - ❑ We'll use a uniform price auction.
- Please note: the PowerPoint slides produced during the exercises are part of the material from the course
 - ❑ Please send the slides to anders@houmollerconsulting.dk.
 - ❑ In the next step, the slides will be sent to a representative for the participants.



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Thank you for your attention!



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