# Storage auction

Additional Yearly Volume – Storage Year 2021-2022

Please keep your microphone muted

# AGENDA

- Welcome and way of working

- Required regulatory documents
- Planning
- Product description + Storage tariffs
- Auction rules
- Allocation Rules

# Welcome and way of working


- Please keep your microphone muted
- Questions can be asked <u>in written</u> via the chat and will be addressed at the end of the session
- Slides will be shared after the info session on the webpage of the Auction
- For further questions after this info session, reach out to your **key account managers** or our mailbox **info.storage@fluxys.com**

# Required regulatory documents for participating the auction

BECOME **STORAGE USER**

- Request for SSA / ACS
  - ✓ Signature Participant representative
    *(countersigned Fluxys)*

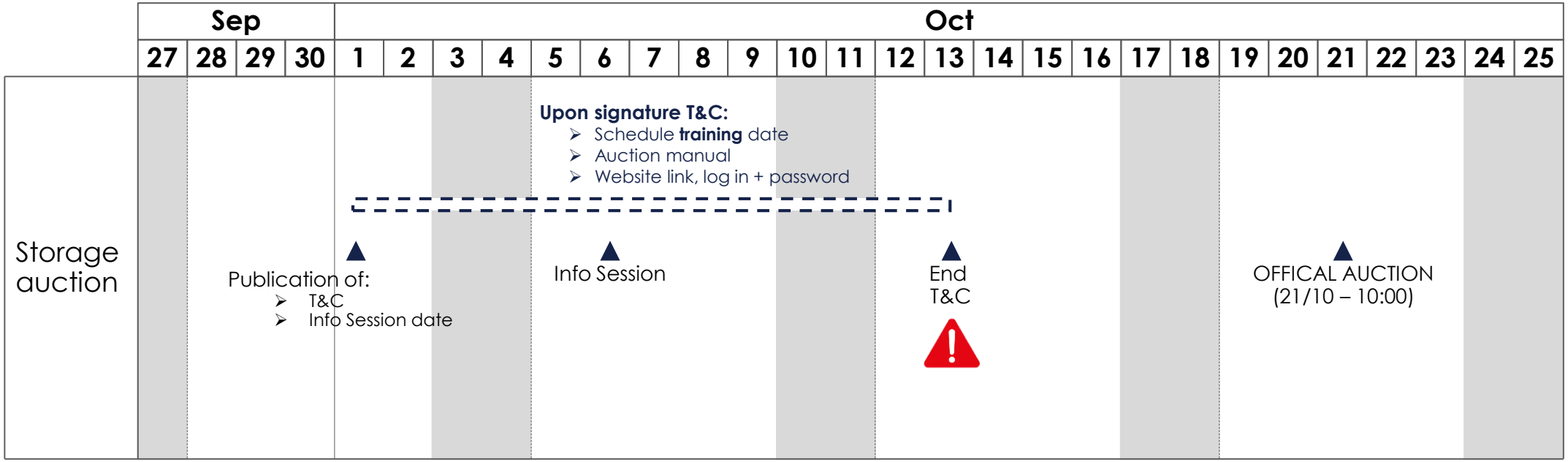
BECOME **PARTICIPANT** OF AUCTION

- Request TCAW (**T**erms & **C**onditions **A**uction **W**indow)
  - ✓ Signature Participant representative
    *(countersigned Fluxys)*

BECOME **BIDDER** OF AUCTION

- Power of Attorney (included in TCAW)
  - ✓ Signature Participant representative
    *(Fluxys sends Registration Evaluation -> Schedule 2 of TCAW)*
  - ✓ When accepted Fluxys ➔ User-accounts for Bidder(s)

# Storage auction - planning



# STORAGE PRODUCTS

AUCTION PRODUCT

## VOLUME

- Amount: **636 GWh Storage Volume**
- Injection & Send Out capacity: **No**
- DAM/NNS: **Yes**
- Period: **15/04/2021 – 14/04/2022**
- Volume restrictions: **No**

## DAM/NNS

- **100% interruptible** injection & Send out capacity
- DAM = **extra capacity** provided by Fluxys BE
- NNS = **Non-nominated** capacity
- Max Daily available capacity is published on the **Electronic Data Platform**
- The available quantities can **change every hour**
- **Capacity** is **allocated** between storage users on a **pro rata** basis, according to the requested quantities of DAM/NNS.
- See back-up for historical DAM/NNS availabilities

# Storage tariffs

## TARIFFS

| | |
|---|---|
| VOLUME | Volume = **cleared price**<br>*If cleared price = reserve price -> Volume = Regulated price (~€1,95/MWh)* |
| INJ+SO | **1. SBU rights**<br>× No additional inj/so costs<br>× No extra transmission cost, unless when exceeding the SBU inj/so rights (not the case if SSU is capped)<br>✓ Fuel cost = **1% of injection / 0,5% of send out nomination**<br><br>**2. DAM/NNS Service (100% interruptible)**<br>✓ Injection: **€0,39/MWh**<br>✓ Send out: **€0,23/MWh**<br>You pay the **maximum hourly excess** for the day<br>✓ Transmission (only entry in grid): **€0,04/MWh**<br>✓ Fuel cost = **1% of injection / 0,5% of send out nomination** |

# Auction rules - Authentication procedure

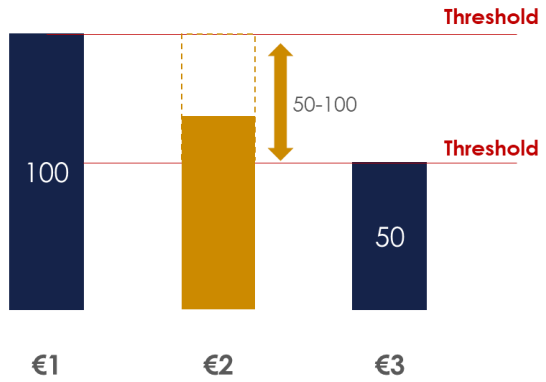
- **Auction manual + User-account + Password + URL auction website** will be sent to Bidder once required regulatory documents are approved by Storage operator;
- **Training session of the auction platform** will be organized with the Bidder(s) separately after approval of regulatory documents;
- Auction will be **scheduled** at least **2 days prior to the Auction Start Date;**
- Bidders must **change their initial Password** before the Auction Starts (an E-mail will be sent for every change of password);
- It is recommended for Bidders to print, prior to the auction, the **FALL-BACK bidding form** in case of a technical problem.
  - !! Once FALL-BACK form is used, specific Bidder needs to continue bidding with the fall-back bidding form.

# Auction rules

## Basic elements for the Auction process

- Price Setting mechanism = Cleared Price
- Reserve price = proposed Regulated tariff (~€1,95/MWh)
- Multiple Rounds with Ascending Price
- **Obligatory Bidding as from start of auction** (no bid = 0)
- Bids need to be valid* and are sealed and binding
- Publication of Round Price before each Round
- Publication of total demand of Round after end of each Round

***Valid bid:**




## Ascending Clock

**Start Price** = Reserve Price

**First Cycle** (major price steps):

1. **Demand first round <= Offer** ; the auction is conclusive
   *Cleared price* = ***Reserve price*** *with Allocated Quantities = Bids*
2. **Demand > Offer** ; *Price increased in steps of €0,2*
3. **Demand < Offer** ; Price of the previous round is taken to initiate the Second Cycle with smaller price steps

**Second Cycle** (minor price steps):

1. **Demand > Offer** ; **Price increased** in steps of €0,05;
2. **Demand = Offer** ; the auction is conclusive
   *Cleared price* = ***Round price*** *with Allocated Quantities = Bids*
3. **Demand < Offer** ; the auction is conclusive
   *Cleared price* = ***Price previous round*** *with allocation through the allocation procedure (see slide 17)*
4. **Demand > Offer but** Round price Second Cycle = last Round Price First Cycle
   *Cleared Price* = ***last Round price of Second Cycle*** *with allocation through the allocation procedure (see slide 17)*

# Demand in First Round <= Offer -> Auction conclusive

| Major price step | Bids & Demand | | | | |
|---|---|---|---|---|---|
| | Offer | S1 | S2 | S3 | ∑ |
| 2,65€ | 100 | | | | |
| 2,55€ | 100 | | | | |
| 2,35€ | 100 | | | | |
| 2,15€ | 100 | | | | |
| **1,95€** | **100** | **40** | **30** | **20** | **90** |

**Demand <= Offer**

- Allocations = Bid Shipper
- Cleared Price = Reserve Price

# Demand > Offer -> Next Round major Price step

| Major price step | Bids & Demand | | | | |
|---|---|---|---|---|---|
| | Offer | S1 | S2 | S3 | Σ |
| 2,65€ | 100 | | | | |
| 2,55€ | 100 | | | | |
| 2,35€ | 100 | | | | |
| **2,15€** | **100** | **40** | **40** | **60** | **140** |
| 1,95€ | 100 | 40 | 50 | 60 | 150 |

**Demand > Offer**

- Price increased with Major Price Step (0,2€)

# Demand = Offer -> Auction conclusive

| Major price step | Bids & Demand | | | | |
|---|---|---|---|---|---|
| | Offer | S1 | S2 | S3 | ∑ |
| 2,65€ | 100 | | | | |
| **2,55€** | **100** | **30** | **20** | **50** | **100** |
| 2,35€ | 100 | 35 | 30 | 50 | 115 |
| 2,15€ | 100 | 40 | 40 | 60 | 140 |
| 1,95€ | 100 | 40 | 50 | 60 | 150 |

**Demand = Offer**

- Allocation = Shippers Bid
- Cleared Price = Round Price

# Demand < Offer -> Next Round to Second Price Cycle

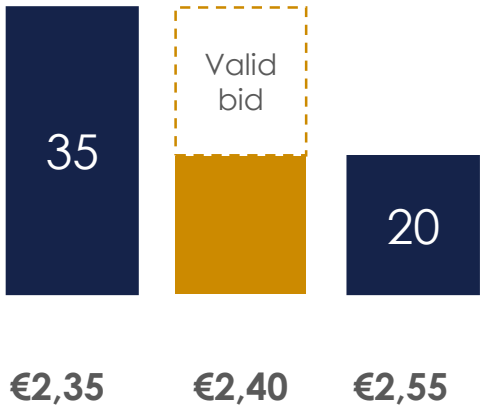
| Major price step | Bids & Demand | | | | |
|---|---|---|---|---|---|
| | Offer | S1 | S2 | S3 | ∑ |
| 2,65€ | 100 | | | | |
| **2,55€** | **100** | **20** | **20** | **10** | **50** |
| 2,35€ | 100 | 35 | 30 | 50 | 115 |
| 2,15€ | 100 | 40 | 40 | 60 | 140 |
| 1,95€ | 100 | 40 | 50 | 60 | 150 |

**Demand < Offer**

- Start price for next cycle is Price of previous round

# Demand > Offer -> Next Round minor Price step

Shipper 1:




| Major price step | Minor price step | Bids & Demand | | | | |
|---|---|---|---|---|---|---|
| | | Offer | S1 | S2 | S3 | ∑ |
| | 2,45 € | 100 | | | | |
| | **2,40€** | **100** | **35** | **20** | **50** | **105** |
| 2,35€ | | 100 | **35** | **30** | **50** | 115 |
| 2,15€ | | 100 | 40 | 40 | 60 | 140 |
| 1,95€ | | 100 | 40 | 50 | 60 | 150 |
| **2,55€** | | 100 | **20** | **20** | **10** | **50** |

**Demand > Offer**

- Price increased with Minor Price Step (0,05€)

**Valid bids**

S1: between 20 and 35
S2: between 20 and 30
S3: between 10 and 50

# Demand = Offer -> Auction conclusive

| Major price step | Minor price step | Bids & Demand | | | | |
|---|---|---|---|---|---|---|
| | | Offer | S1 | S2 | S3 | ∑ |
| | **2,45 €** | **100** | **30** | **20** | **50** | **100** |
| | 2,40€ | 100 | 35 | 20 | 50 | 105 |
| 2,35€ | | 100 | 35 | 30 | 50 | 115 |
| 2,15€ | | 100 | 40 | 40 | 60 | 140 |
| 1,95€ | | 100 | 40 | 50 | 60 | 150 |

**Demand = Offer**

- Allocation = Shippers Bid
- Cleared Price = Round Price

# Demand in Second Price Cycle < Offer -> Auction conclusive

| Major price step | Minor price step | Bids & Demand | | | | |
|---|---|---|---|---|---|---|
| | | Offer | S1 | S2 | S3 | ∑ |
| | **2,45 €** | **100** | **30** | **20** | **10** | **60** |
| | 2,40€ | 100 | 35 | 20 | 50 | 105 |
| 2,35€ | | 100 | 35 | 30 | 50 | 115 |
| 2,15€ | | 100 | 40 | 40 | 60 | 140 |
| 1,95€ | | 100 | 40 | 50 | 60 | 150 |

**Demand < Offer**

- Allocation Procedure
- Cleared Price = Price of previous Round

# The Allocation algorithm = Linear interpolation between the last Bids for each shipper

| Minor Price step | Bids & Demand | | | | |
|---|---|---|---|---|---|
| | Offer | S1 | S2 | S3 | ∑ |
| 2,45 € | 100 | 30 | 20 | 10 | 60 |
| **2,40€** | 100 | 35 | 20 | 50 | 105 |
| **Delta of Bids** | | **5** | **0** | **40** | 45 =∑of Delta |
| **% Delta's** | | **11%** = 5 / 45 | **0%** = 0 / 45 | **89%** = 40 / 45 | 100% |
| **% Delta applied on Remaining** | | 4 = 11% of 40 | 0 = 0% of 40 | 36 =89% of 40 | 40 |
| Add to Bid last round | | **34** | **20** | **46** | 100 |

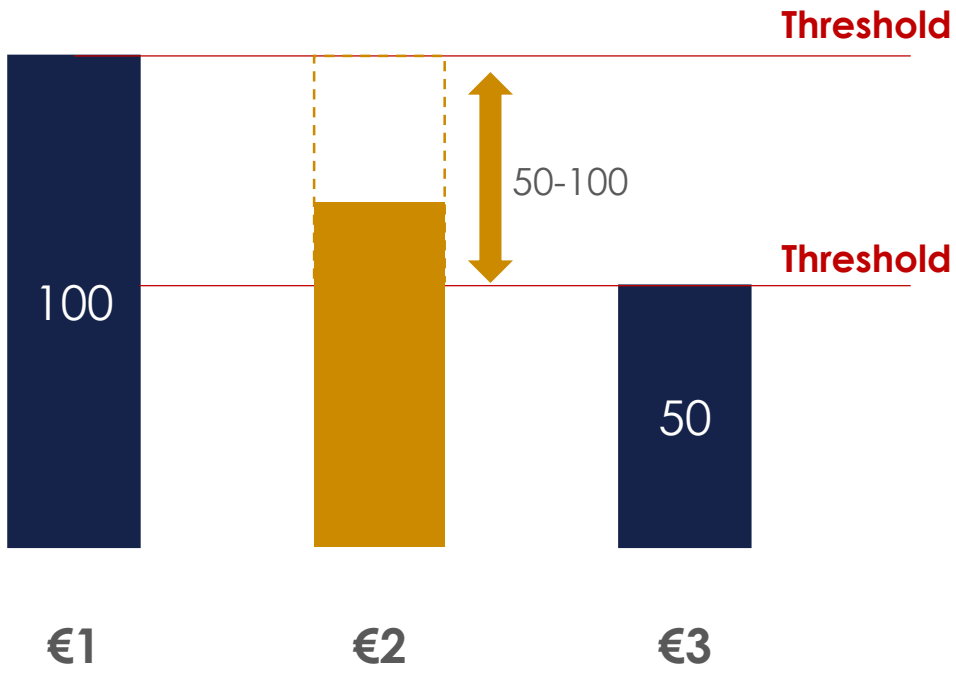
Cleared price

**Remaining compared to offer = 40**

Minimum allocation of 50 000 MWh

# Back up

# Valid bids



# DAM/NNS availabilities