



# Grid reserve procurement 2023

21.02.2023

# Agenda

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- **Eligibility criteria**
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  - Reference Value
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- **Summary**

If you have questions, feel free to contact us at: [netzreserve@apg.at](mailto:netzreserve@apg.at)



# Introduction

# Introduction



## Grid Reserve

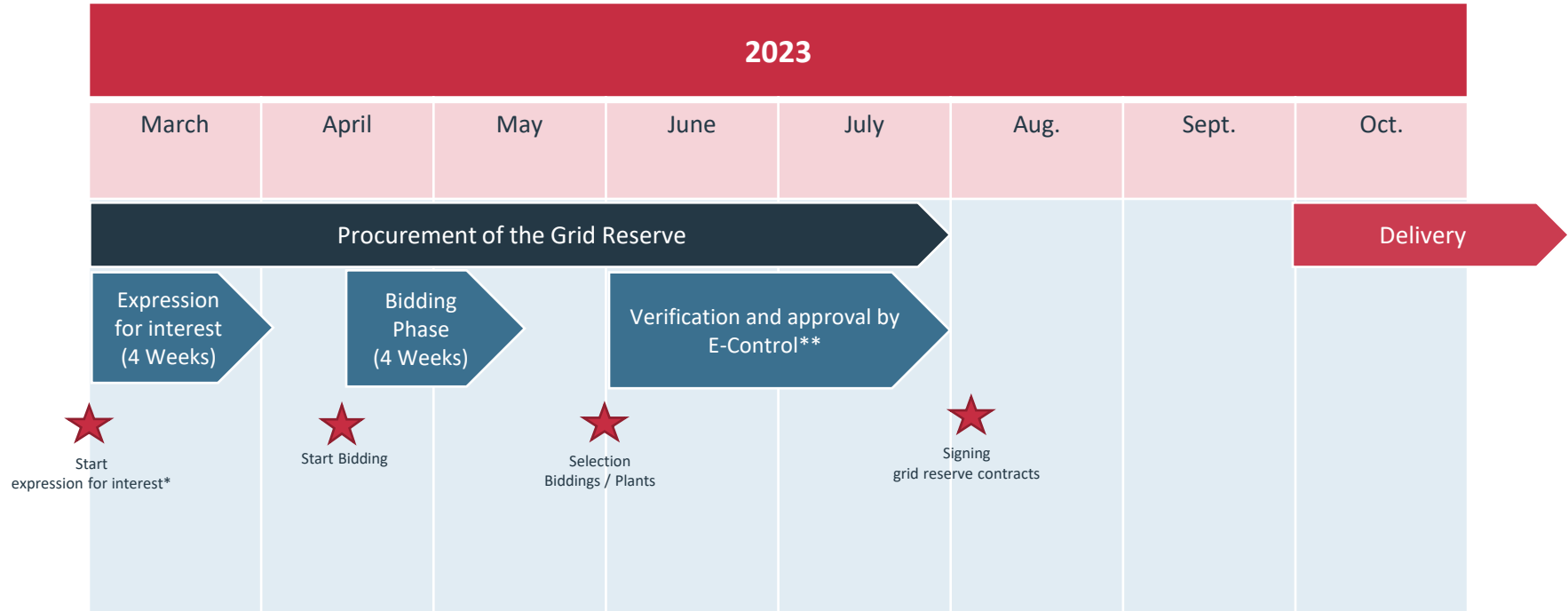
- With the grid reserve APG intends to secure its requirement for redispatch → corresponds to the **capacity reserve of units that can be activated for redispatch („EPM“)**
- §23 of the 2021 ElWOG regulates the procedure of dimensioning and procurement legally:
  - Annual analysis of demand for grid reserve (system analysis)
  - Annual procurement in a transparent, non-discriminatory and market-oriented tendering process

## Redispatching / Congestion Management

- All contracted grid reserve units need an additional contract for redispatching, thus the contracted units are available for redispatching measures by APG
- Compensation for an activation in addition to the grid reserve payments is calculated on actual costs
- Decision on activation of redispatch units is made independently of the grid reserve (availability, effectiveness and cost).

# Tender Timetable

# Tender Timetable 2023



\*According to EIWOG not later than February 28.

\*\*According to EIWOG not longer than eight weeks



# General Conditions

# General Conditions (I/III)



## Subject of the service provision

- During the contract duration, the providers of grid reserve agree to operate the unit and keep it available for activation by APG
- The grid reserve providers have to deliver schedules (redispatch measures, availability) and online metering data for checking the availability of units (also for units < 25MW)

## Effects on participating in the electricity market

- Grid reserve units are obliged to reserve their performance for activations by APG. Participation in the electricity market is not permitted.
- Generation units and energy storages are permitted to participate in the electricity market for charging storages.
- Consumption units must be able to provide the grid reserve capacity for redispatch to APG
- Exemptions to these obligations are coordinated revisions (between Provider and APG)



# General Conditions (II/III)



## Activation for redispatch measures (“EPM Activation”)

- With existing redispatch-contract (provider and APG): activation is not based on ability and capability
- Without existing redispatch-contract: contract has to be concluded
- When a unit is activated, economic disadvantages and costs are reimbursed. Costs for the provision of grid reserve capacity are excluded.
- The provider commits to implement and use the communication system defined by APG
- Coordination with the responsible TSO is necessary

## Activation tests and test runs

- APG is allowed to test the availability of the unit by test calls (max. 10 times per year).
- The provider has the possibility to undertake tests without an activation by APG (after revisions or official requirements). Tests have to be coordinated with APG. For these exceptional test-cases the energy can be marketed in the electricity market.

# General Conditions (III/III)



## Remuneration

- The grid reserve fee remunerates the reservation of grid reserve units
- Activations are compensated on actual costs.

## Contractual penalties / reduction of remuneration

- In case of unavailability outside the coordinated period for maintenance, a penalty in the amount of one month's fee will be incurred. This only applies if the unavailability has not been reported to APG.
- If an unavailability (outside the coordinated maintenance period) has been reported to APG, it will incur a penalty of twice the daily fee.
- If an unavailability falls under "force majeure", the terms of the contract are mutually suspended for the period of unavailability.

## Maintenance

- Maintenance periods are possible but must be announced at the time of the call for entries to the bidding process.
- The maintenance period specified by the provider, influences the selection criterion.



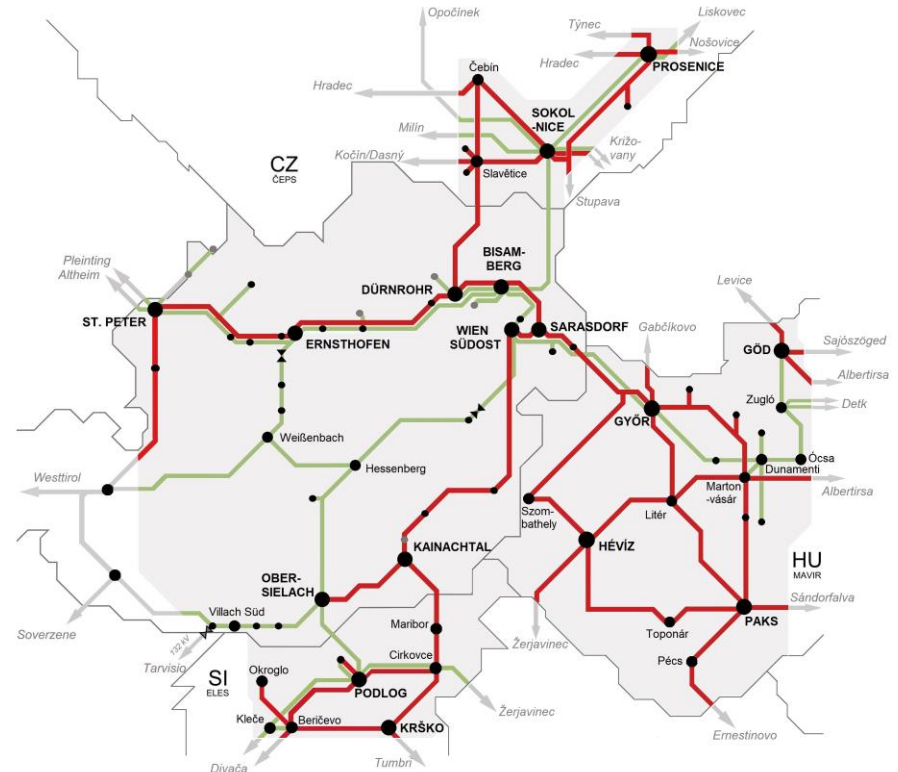
# Eligibility criteria

# Eligibility criteria (I/V)



## Grid connection / location, minimum capacity & technology

- The feed-in and feed-out needs to be predominantly (> two thirds) in the highlighted grid area (map on the right)
- Pooled units: location-criterion applies for every partial unit
- Minimal capacity 1MW per unit
- No restrictions to a specific technology



# Eligibility criteria (II/V)



## General requirements for generation capacities

- The lead time (time until the max. grid reserve capacity is reached from moment of request) must not exceed 10 hours.
- Generation must be continuously available at full capacity; if storage is limited at least 6 hours of activation time has to be guaranteed. This applies equally if reactivated.
- The time for a new activation (shutdown + minimum downtime + subsequent start-up until the needed grid reserve capacity is reached) must not exceed 18 hours.
- Upper limit for CO<sub>2</sub>/kWh (according to EIWOG)
- No production of radioactive waste
- Confirmation of the connection network operator about the exclusion of possible grid restrictions
- Decommissioning notifications for generation plants >20 MW

# Eligibility criteria (III/V)



## Additional requirements for foreign generation capacities

- Reporting on decommissioning comparable with the procedure in Austria
- The TSO abroad can activate the units for redispatch purposes via APG only (separate contract)
- A commitment declaration regarding the non-participation in the energy market to their NRA
- Confirmation of the foreign NRA, TSO and, if applicable, connection network operator for the possible participation in the grid reserve

# Eligibility criteria (IV/V)



## Requirements for consumption units in Austria

- Reducing or time-shifting the consumption to the full extent of capacity (offered reducible grid reserve capacity of the plant) must be possible temporarily, but at least for 6 hours, even in the case of repeated activation
- The lead time (time between request for activation and reaching the max. power reduction) must not exceed 10 hours.
- The time for reactivation (time between the end of an activation and reaching the maximum power reduction again) must not exceed 18 hours.
- Confirmation of the connection network operator regarding any power transmission restrictions required

# Eligibility criteria (V/V)



## Requirements for aggregators in Austria

- The offered grid reserve capacity must be available for at least 6 hours continuously, even in the case of reactivation
- The lead time (time until the grid reserve capacity is reached) must not exceed 10 hours.
- The time for a reactivation (time between the end of an activation and reaching the grid reserve capacity again) must not exceed 18 hours.
- For each aggregated individual generation unit:
  - CO<sub>2</sub>-limits according to EIWOG and absence of radioactive waste
  - Decommissioning notifications for generation plants >20 MW





# Bidding

# Bidding (I/VII)



## Participating capacities and products

- Any unit deemed eligible by APG can participate in the bidding phase and submit a bid for any of the possible products (1-year, summer or winter).
- If a part of a unit can be operated independently, a separate bid may be submitted for each part, provided that the sub-units have been prequalified separately by APG. The sum of the capacity of the separated bids cannot outreach the full capacity
- Providers submitting a bid for an annual product are obliged to lay a bid for the winter- and summer-product for the exact unit.
- For any aggregated individual unit with a grid reserve capacity greater than 1MW an individual bid for each unit is necessary, unless there is an exception agreed with APG.
- A provider can combine several offers into one combination offer.
- Revisions during the delivery period are possible but must be announced in the bidding phase beforehand

# Bidding (II/VII)



## Tolerance range

- Pursuant to §7 of the ElWOG, a tolerance of one calendar month for delaying the beginning and shortening the end of the delivery period is granted
- For the 2023 delivery period a tolerance range can only be granted for the summer product
  - Providers can choose a starting period between April and June and ending period between August and October
  - The unit has to be available for redispach even when activation for the grid reserve is paused.
- The contracted period can be shortened monthly – extension is not possible
- Those months covered by the shortening of the delivery period are not eligible for payments of the grid reserve fee
- For units with a statement for temporarily or permanently decommissioning, the summer product period is set from April 1 to September 30. It is not possible to use the tolerance months.

# Bidding (III/VII)



## Tolerance range

- Bidding phase (April 2023):

	Capacity	Value of the offer
Provider 1	100 MW	1,40 Mio.€
Provider 2	100 MW	1,20 Mio.€
Provider 3	100 MW	1,00 Mio.€

April	May	June	July	August	September	October
Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve
Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Market	Market
Market	Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve

- After conclusion of contract (mid of march 2024):

	Capacity	Value of the offer
Provider 1	100 MW	1,40 Mio.€
Provider 2	100 MW	1,20 Mio.€
Provider 3	100 MW	1,00 Mio.€

April	May	June	July	August	September	October
GR or Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve
Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Market	Market
Market	Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve

- After conclusion of contract (mid of april 2024):

	Capacity	Value of the offer
Provider 1	100 MW	1,40 Mio.€
Provider 2	100 MW	1,20 Mio.€
Provider 3	100 MW	1,00 Mio.€

April	May	June	July	August	September	October
Market	GR or Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve
Market	GR or Market	Grid Reserve	Grid Reserve	Grid Reserve	Market	Market
Market	Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve

# Bidding (IV/VII)



## Tolerance range

- After conclusion of contract (mid of august 2024):

	Capacity	Value of the offer
Provider 1	100 MW	1,40 Mio.€
Provider 2	100 MW	1,20 Mio.€
Provider 3	100 MW	1,00 Mio.€

	April	May	June	July	August	September	October
Provider 1	Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	GR or Market	GR or Market
Provider 2	Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Market	Market
Provider 3	Market	Market	Grid Reserve	Grid Reserve	Grid Reserve	GR or Market	GR or Market

- After conclusion of contract (mid of september 2024):

	Capacity	Value of the offer
Provider 1	100 MW	1,40 Mio.€
Provider 2	100 MW	1,20 Mio.€
Provider 3	100 MW	1,00 Mio.€

	April	May	June	July	August	September	October
Provider 1	Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	GR or Market
Provider 2	Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Market	Market
Provider 3	Market	Market	Grid Reserve	Grid Reserve	Grid Reserve	Market	Market

- Final decision:

	Capacity	Value of the offer
Provider 1	100 MW	<b>1,20</b> <del>1,40</del> Mio.€
Provider 2	100 MW	1,20 Mio.€
Provider 3	100 MW	<b>0,60</b> <del>1,00</del> Mio.€

	April	May	June	July	August	September	October
Provider 1	Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve
Provider 2	Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Market	Market
Provider 3	Market	Market	Grid Reserve	Grid Reserve	Grid Reserve	Market	Market

# Bidding (V/VII)



## Reference Value

- Offers are checked on the basis of the reference value:
  - The reference value is determined from the volume-weighted average of the offers
  - The most expensive 10% of the offered capacities are not considered in the determination
- Offers that exceed the calculated reference value significantly are reported to E-Control (NRA)
- The significance threshold is published by APG before the bidding process starts
- To ensure comparability, each offered price per MW and month is considered when calculating the reference value (monthly specific offering value)

$$AW_{SP,M} = \frac{AW}{T_{PM} * \left( P_{ges} * \frac{T_{PD} - \sum_{n=1}^N T_{RD,n}}{T_{PD}} + \sum_{n=1}^N P_{res,n} * \frac{T_{RD,n}}{T_{PD}} \right)}$$

$AW_{SP,M}$	monthly specific offering value (€/MW)
$AW$	Value of the offer over the entire product period (€)
$T_{PM}$	Offered product period (months)
$P_{ges}$	total grid reserve capacity (MW)
$T_{PD}$	Offered product period (Days)
$N$	Revisions during the offered product period (Quantity)
$T_{RD,n}$	planned duration of revision (days of the n-th revision)
$P_{res,n}$	available grid reserve capacity during the n-th Revision (MW)

# Bidding (VII/VII)



## Election process

- § 23b ElWOG states, that the grid reserve shall be procured to the lowest possible costs, which is followed in the election process
- The calculation of costs for each offer considers the offered value, the timespan of maintenance and the available capacity during maintenance
- Offers with shorter periods for maintenance are preferred over those with longer periods
- If the same annual specific bid value is calculated for two different bids:
  - Offer with higher actual availability is ranked lower (preferred)
- In case the actual availabilities are identical:
  - Offer with the lower specific CO<sub>2</sub> – Emissions (gCO<sub>2</sub>/kWh<sub>el</sub>) is prioritized





# Amendments to last year's procedure

# Amendments to the 2022 procedure



## Summary

1. *No two-year product (according to. § 23.b (7) EIWOG 2010)*
2. *For any aggregated individual unit with a grid reserve capacity greater than 1MW an individual bid for each unit is necessary, unless there is an exception agreed with APG.*
3. *For units with a statement for temporarily or permanently decommissioning, the summer product period is set from April 1 to September 30. It is not possible to use the tolerance months.*
4. *Economic unavailability of consumption units*
  - *If units are restricted to provide consumption capacity for grid reserve due to unforeseeable economic events, the contractual obligations may be suspended for the remaining term of the contract*
  - *If the unit should be operating during this period, it can be activated for redispatch according to the redispatch contract*

# Further information



Questions and answers about the grid reserve process:

[FAQs-Netzreserve](#)

Expression of interest with all necessary information and forms:

<https://markt.apg.at/netz/netzreserve/interessensbekundung/>

Bidding phase with all necessary information and forms:

<https://markt.apg.at/netz/netzreserve/angebotsphase/>



# Thank you for your attention

If you have any questions, please contact us at [netzreserve@apg.at](mailto:netzreserve@apg.at)