



Grid reserve procurement 2024

13.02.2023

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If you have questions, feel free to contact us at: 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

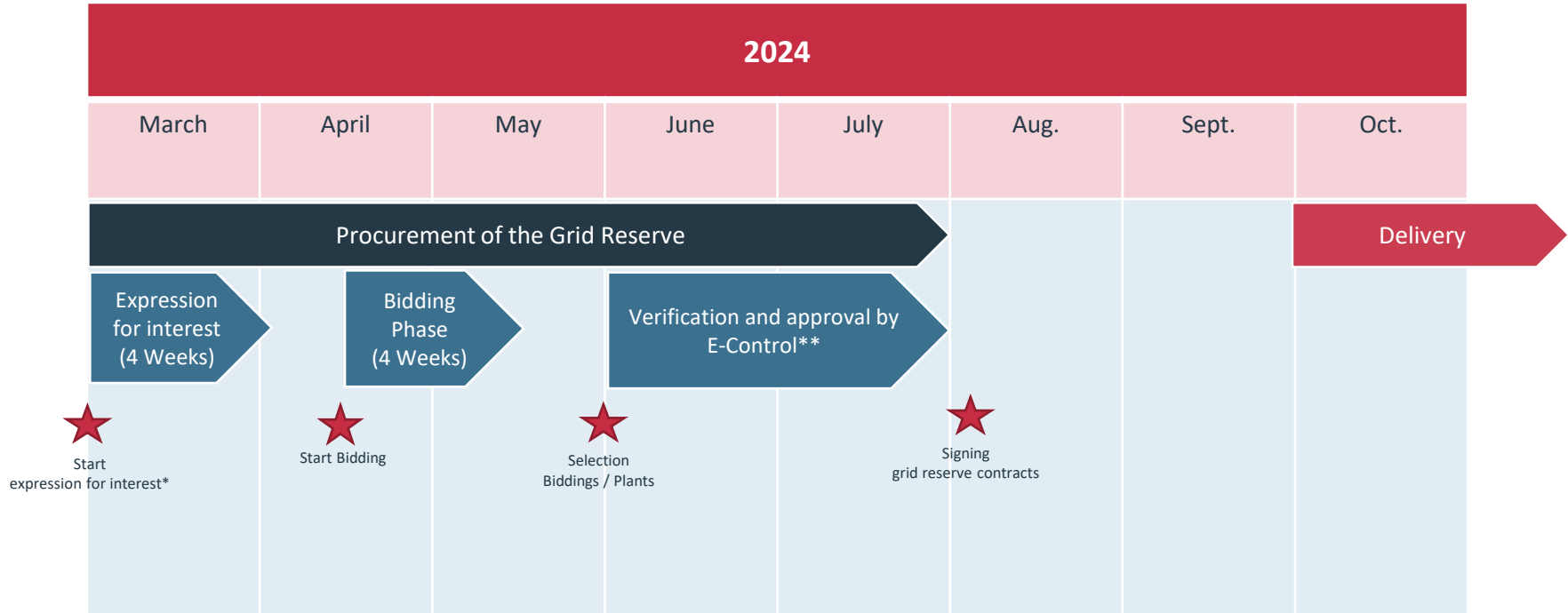
Redispatching / Congestion Management

- 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 2024



*According to EIWOG not later than February 29.

**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. 5 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.



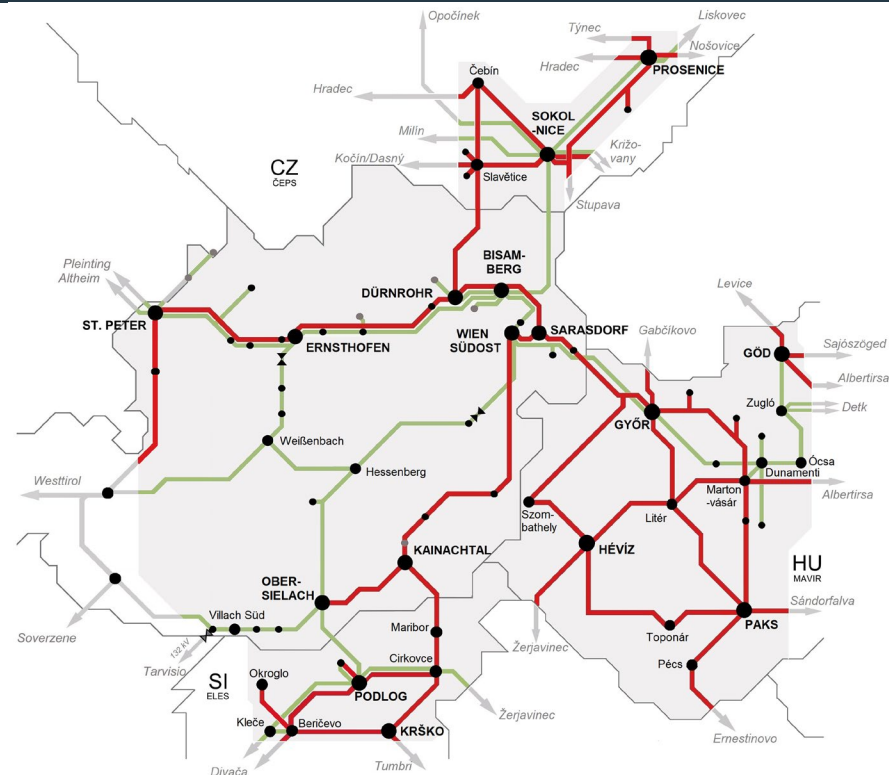
Eligibility criteria

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 CO₂/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, for this tender period before 30.09.2023

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:
 - CO₂-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 2024 procurement 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 2024):

	Capacity	Value of the offer	April	May	June	July	August	September	October
Provider 1	100 MW	1,40 Mio.€	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve
Provider 2	100 MW	1,20 Mio.€	Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Market	Market
Provider 3	100 MW	1,00 Mio.€	Market	Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve

- After conclusion of contract (mid of march 2025):

	Capacity	Value of the offer	April	May	June	July	August	September	October
Provider 1	100 MW	1,40 Mio.€	GR or Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve
Provider 2	100 MW	1,20 Mio.€	Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Market	Market
Provider 3	100 MW	1,00 Mio.€	Market	Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve

- After conclusion of contract (mid of april 2025):

	Capacity	Value of the offer	April	May	June	July	August	September	October
Provider 1	100 MW	1,40 Mio.€	Market	GR or Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve
Provider 2	100 MW	1,20 Mio.€	Market	GR or Market	Grid Reserve	Grid Reserve	Grid Reserve	Market	Market
Provider 3	100 MW	1,00 Mio.€	Market	Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve

Bidding (IV/VII)



Tolerance range

- After conclusion of contract (mid of august 2025):

	Capacity	Value of the offer	April	May	June	July	August	September	October
Provider 1	100 MW	1,40 Mio.€	Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	GR or Market	GR or Market
Provider 2	100 MW	1,20 Mio.€	Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Market	Market
Provider 3	100 MW	1,00 Mio.€	Market	Market	Grid Reserve	Grid Reserve	Grid Reserve	GR or Market	GR or Market

- After conclusion of contract (mid of september 2025):

	Capacity	Value of the offer	April	May	June	July	August	September	October
Provider 1	100 MW	1,40 Mio.€	Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	GR or Market
Provider 2	100 MW	1,20 Mio.€	Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Market	Market
Provider 3	100 MW	1,00 Mio.€	Market	Market	Grid Reserve	Grid Reserve	Grid Reserve	Market	Market

- Final decision:

	Capacity	Value of the offer	April	May	June	July	August	September	October
Provider 1	100 MW	1,20 1,40 Mio.€	Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve
Provider 2	100 MW	1,20 Mio.€	Market	Grid Reserve	Grid Reserve	Grid Reserve	Grid Reserve	Market	Market
Provider 3	100 MW	0,60 1,00 Mio.€	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)

Bidding (VI/VII)



Reference value - formula

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

$AW_{SP,M}$	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 CO₂ – Emissions (gCO₂/kWh_{el}) is prioritized



Amendments to last year's procedure

Amendments to the 2023 procedure



Summary

1. *No two-year product (according to. § 23.b (7) ElWOG 2010)*
2. *The number of possible availability tests by APG will be reduced from 10 to 5*
3. *A maximum unavailability for a product will be defined*
4. *The significance value will be reduced according to the E-Control report about the situation on the Austrian electricity market in relation to the grid reserve*
5. *Clarification, that an approval by E-Control is required for a grid reserve contract*
6. *Clarification, what the terminology “revision” means*
7. *Obligation to include flexibility for the revision periods*

Further information



Questions and answers about the grid reserve process (FAQs as a download option):

<https://markt.apg.at/en/power-grid/grid-reserve/>

Expression of interest with all necessary information and forms:

<https://markt.apg.at/en/power-grid/grid-reserve/expression-of-interest/>

Bidding phase with all necessary information and forms:

<https://markt.apg.at/en/power-grid/grid-reserve/offer-phase/>



Thank you for your attention

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