

Procurement and pricing of reserves

Updated May 2nd 2024

Remedial action	Frequency containment reserves			Frequency restoration reserves	
FFR	FCR-D upward	FCR-D downward	FCR-N	aFRR	mFRR
Fast Frequency Reserve (Snabb frekvensreserv)	Upward Frequency Containment Reserve - Disturbance (Frekvenshållningsreserv -Störning uppreglering)	Downward Frequency Containment Reserve - Disturbance (Frekvenshållningsreserv -Störning nedreglering)	Frequency Containment Reserve - Normal (Frekvenshållningsreserv -Normaldrift)	Automatic Frequency Restoration Reserve (Automatisk Frekvens-återställningsreserv)	Manual Frequency Restoration Reserve (Manuell Frekvens-återställningsreserv)
Upward regulation	Upward regulation	Downward regulation	Symmetrical upward and downward regulation	Upward and/or downward regulation	Upward and/or downward regulation
Procurement Bids on capacity market	Procurement Bids on capacity market	Procurement Bids on capacity market	Procurement Bids on capacity market	Procurement Bids on capacity market	Procurement Bids on capacity market and energy activation market
Capacity remuneration Pay as cleared. Cleared volumes and prices are published weekly on Aktörsportalen . More information is available in Swedish in the document FFR marknadslösning 2023 .	Capacity remuneration Pay as cleared. Prices per MW are published on Mimer .	Capacity remuneration Pay as cleared. Prices per MW are published on Mimer .	Capacity remuneration Pay as cleared. Prices per MW are published on Mimer .	Capacity remuneration Pay as cleared. Prices per MW are published on Mimer .	Capacity remuneration Pay as cleared. Prices per MW are published on Mimer .
Energy remuneration No energy remuneration.	Energy remuneration No energy remuneration.	Energy remuneration No energy remuneration.	Energy remuneration According to up or down regulating prices. Prices are published on Mimer .	Energy remuneration According to up or down regulating prices. Prices are published on Mimer .	Energy remuneration Pay as cleared. Remuneration according to up or down regulating prices. Prices are published on Mimer .

More detailed information on the requirements is available in Swedish in the BSP agreement and associated regulatory documents. They are available for download on Svenska kraftnät's webpage: <https://www.svk.se/aktorsportalen/leverantor-av-balanstjanster-bsp/bsp-avtalet/>

Gate closure for different reserves is presented in Figure 1. The reserves FCR-N, FCR-D upward and FCR-D downward are procured during two complementary auctions one day (D-1) ahead. The majority of the capacity for FCR is procured in the first auction, the rest is procured in the second auction. The reserve aFRR is procured D-1.

The procurement of mFRR takes place on the capacity market and on the energy market. Capacity from the capacity market is procured during one day (D-1) ahead. Energy bids for mFRR are cleared during the operating hour if needed. Bids for mFRR shall be submitted no later than 45 minutes before the operating hour. A called bid on the capacity market implies a commitment to submit a bid on the energy market. The reserve FFR, which is not included in Figure 1, is procured on a yearly basis. FFR is cleared two times per week (Monday and Friday).

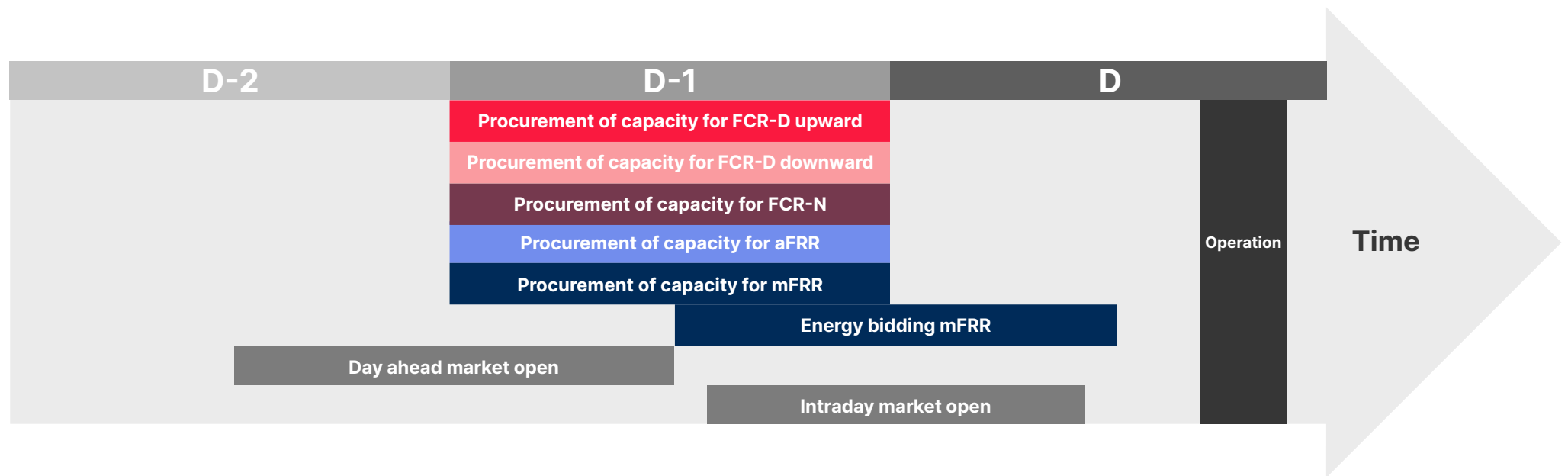


Figure 1. Procurement and pricing of reserves. The reserve FFR is not included in the figure as it is procured on a yearly basis.

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