

# WEM Datacube Documentation

## Market Summary Datacube

Column Name	Data Type	Description
interval	Date/Time	5-min dispatch interval
system_demand	Decimal	Total system demand (MW)
total_injection	Decimal	Total generation (MW)
total_withdrawal	Decimal	Total scheduled load, e.g. battery charging (MW)
cont_raise_qty	Decimal	Contingency Raise ESS – cleared quantity (MW)
cont_lower_qty	Decimal	Contingency Lower ESS – cleared quantity (MW)
reg_raise_qty	Decimal	Regulation Raise ESS – cleared quantity (MW)
reg_lower_qty	Decimal	Regulation Lower ESS – cleared quantity (MW)
rocof_qty	Decimal	RoCoF Control Service – cleared quantity (MW.s)
energy_price	Decimal	Energy market spot price (\$/MWh)
cont_raise_price	Decimal	Contingency Raise ESS – spot price (\$/MW/hr)
cont_lower_price	Decimal	Contingency Lower ESS – spot price (\$/MW/hr)
reg_raise_price	Decimal	Regulation Raise ESS – spot price (\$/MW/hr)
reg_lower_price	Decimal	Regulation Lower ESS – spot price (\$/MW/hr)
rocof_price	Decimal	RoCoF Control Service – spot price (\$/MW.s/hr)

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## Facility SCADA and Facility Schedule Datacubes

### Facility SCADA

Column Name	Data Type	Description
interval	Date/Time	5-min dispatch interval
facilityCode	Text	<a href="#">Facility registration code</a> , e.g. EDWFMAN_WF1 = Emu Downs Wind Farm
initialMw	Decimal	Facility output at the start of the interval (MW)

### Facility Schedule

Column Name	Data Type	Description
facilityCode	Text	<a href="#">Facility registration code</a> , e.g. EDWFMAN_WF1 = Emu Downs Wind Farm
interval	Date/Time	5-min dispatch interval
contingencyRaise	Decimal	Cleared Contingency Raise ESS dispatch quantity (MW)
contingencyLower	Decimal	Cleared Contingency Lower ESS dispatch quantity (MW)
energy	Decimal	Cleared energy dispatch quantity (MW)
regulationRaise	Decimal	Cleared Regulation Raise ESS dispatch quantity (MW)
regulationLower	Decimal	Cleared Regulation Lower ESS dispatch quantity (MW)
rocof	Decimal	Cleared RocoF Control Service dispatch quantity (MW.s)

# Facility Schedule Example

Alinta Pinjarra U1 and U2 on 1 December 2023 at 8:00AM

facilityCode	interval	contingencyLower	contingencyRaise	energy	regulationLower	regulationRaise	rocof
ALINTA_PNJ_U1	1/12/2023 8:00	22.073		70	30	0	662.453
ALINTA_PNJ_U2	1/12/2023 8:00	24.738	6	70	30	0	662.453

**Alinta Pinjarra U1 (ALINTA\_PNJ\_U1)** is scheduled for the following energy and ESS services in this dispatch interval:

- 70 MW of energy
- 30 MW of Regulation Lower ESS (but did not clear for Regulation Raise ESS)
- 22.073 MW of Contingency Lower ESS (not did not clear for Contingency Raise ESS)
- 662.453 MW.s of RoCoF Control Service ESS

**Alinta Pinjarra U2 (ALINTA\_PNJ\_U2)** is scheduled for the same services as ALINTA\_PNJ\_U1, but is also cleared for 6 MW of Contingency Raise ESS.