

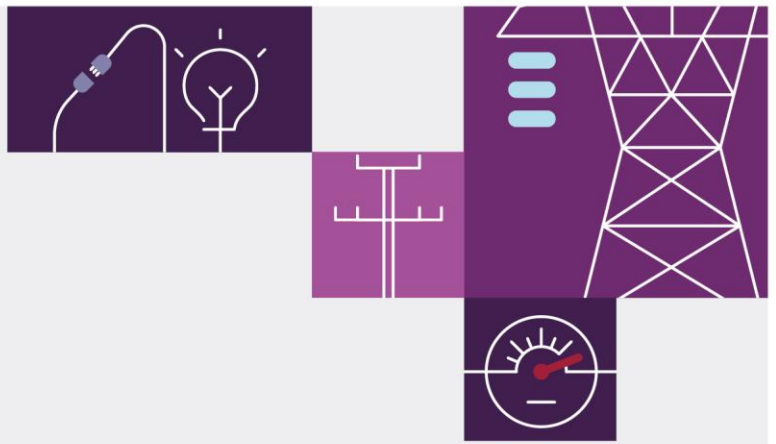
WEM Relaxed Constraints

April 2026

Q1 2026

A summary of the total number, frequency and type of Constraints that were relaxed in order to resolve infeasible dispatch solutions





Important notice

Purpose

Under clause 7.2.7 of the ESM Rules, AEMO must as soon as practicable after the end of each quarter, publish on the WEM Website a report summarising the total number, frequency and type of Constraints that were relaxed under clause 7.2.6 during that quarter.

Disclaimer

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Relaxed Constraints

1.1 Introduction

Under clause 7.2.6 of the Electricity System and Market (ESM) Rules, AEMO may “relax” Constraints used in the Central Dispatch Process to resolve infeasible dispatch solutions. If the WEM Dispatch Engine (WEMDE) is not able find a feasible solution, it determines which Constraints to relax¹ and by how much using the concept of Constraint Violation Penalty (CVP²), whereby the cost of relaxing a Constraint depends on its associated CVP value.

Under clause 7.2.7(b) of the ESM Rules, AEMO must as soon as practicable after the end of each quarter, publish on the WEM Website a report summarising the total number, frequency and type of Constraints that were relaxed under clause 7.2.6 during that quarter.

1.2 Summary of relaxed Constraints

Table 1 shows the breakdown of relaxed Constraints by category and Trading Month. Note that a Constraint that was relaxed in multiple intervals has been counted multiple times.

Table 1 – Breakdown of category and Trading Month of relaxed Constraints for Q1 of 2026

Constraint Type	Description	January	February	March	Total
Tranche Quantity Upper Bound Constraint (Dispatch Algorithm Formulation 2.4.2)	Constraint that implements the upper bound on the Tranche Quantity variable.	1556	595	1050	3201
Tranche Quantity Lower Bound Constraint (Dispatch Algorithm Formulation 2.4.3)	Constraint that implements the lower bound on the Tranche Quantity variable.	134	2115	5729	7978
Contingency Reserve Raise Requirement Constraint (Dispatch Algorithm Formulation 2.4.12)	Constraint that ensures the quantity of procured Contingency Reserve Raise is greater than or equal to the requirement.	1	2	0	3
Ramp Up Constraint (Dispatch Algorithm Formulation 2.4.13)	Constraint that ensures that a Registered Facility’s Dispatch Target for energy is within its Ramp Rate Limit based on the Registered Facility’s Initial MW quantity.	38	23	77	138
Ramp Down Constraint (Dispatch Algorithm Formulation 2.4.15)	Constraint that ensures that a Registered Facility’s Dispatch Target for energy is within its Ramp Rate Limit based on the Registered Facility’s Initial MW quantity.	110	58	38	206
Essential System Service Enablement Minimum Constraint (Dispatch Algorithm Formulation 2.4.18)	Constraint that ensures Registered Facilities are not dispatched for less than their Enablement Minimum for the relevant Essential System Service.	284	557	1108	1949

¹ In the context of the WEM Dispatch Engine, relaxed Constraints are also called violating Constraints.

² For more information about Constraint Violation Penalties see [WEM Procedure: Dispatch Algorithm Formulation](#)

Constraint Type	Description	January	February	March	Total
Essential System Service Enablement Maximum Constraint (Dispatch Algorithm Formulation 2.4.19)	Constraint that ensures Registered Facilities are not dispatched for more than the Enablement Maximum for the relevant Essential System Service.	157	80	54	291
Essential System Service Joint Ramping Up Constraint (Dispatch Algorithm Formulation 2.4.20)	Constraint that ensures the combination of the dispatched quantities for Registered Facilities that are providing both energy and Regulation Raise cannot be greater than the Maximum Upwards Ramp Rate of those Facilities.	1	0	0	1
Essential System Service Joint Ramping Down Constraint (Dispatch Algorithm Formulation 2.4.21)	Constraint that ensures the combination of the dispatched quantities for Registered Facilities that are providing both energy and Regulation Raise cannot be greater than the Maximum Downwards Ramp Rate of those Facilities.	1	0	0	1
Essential System Service Joint Capacity Constraint 1 (Dispatch Algorithm Formulation 2.4.22)	Constraint that ensures a Registered Facility that is providing Regulation Raise, and one or both of Contingency Reserve Raise and/or Contingency Reserve Lower, is dispatched such that it can provide all Essential System Services concurrently.	98	72	50	220
Essential System Service Joint Capacity Constraint 2 (Dispatch Algorithm Formulation 2.4.23)	Constraint that ensures a Registered Facility that is providing two or more of the following services: energy, Regulation Lower, Contingency Reserve Raise, and Contingency Reserve Lower, is dispatched such that it can provide all Essential System Services concurrently.	250	417	820	1487
Essential System Service Energy and Regulation Constraint 1 (Dispatch Algorithm Formulation 2.4.24)	Constraint that ensures the dispatch of a Registered Facility that provides Regulation Raise together with energy occurs within bounds specified by the Essential System Service Trapezium.	3	0	0	3
Generic 'Network' Constraint (Dispatch Algorithm Formulation 2.4.27, ESM Rule 7.2.4(e))	Generic Constraint with a Constraint Type of 'Network'. These Constraints are invoked and revoked by AEMO to represent various Network conditions.	154	110	63	327
Generic 'Other' Constraint (Dispatch Algorithm Formulation 2.4.27, ESM Rule 7.2.4(f))	Generic Constraint with a Constraint Type of 'Other'. These Constraints are invoked and revoked by AEMO to represent various non-Network conditions.	0	8	0	8
Fast Start Inflexibility Profile Mode 2 Constraint (Dispatch Algorithm Formulation 2.4.29)	Constraint that ensures the time, T2, provided in Real-Time Market Submissions for Dispatch Inflexibility Profiles for Fast Start Facilities are respected.	5	3	7	15
RoCoF Control Service Requirement Constraint (Dispatch Algorithm Formulation 2.4.38)	Constraint that ensures the total quantity of procured RoCoF Control Service is greater than the RoCoF Control Requirement.	0	2	11	13
Pure Storage Charge Constraint (Dispatch Algorithm Formulation 2.4.44)	Constraint that ensures Registered Facilities with Electric Storage Resources limit their energy and Essential System Service provision, subject to their charge level.	0	5	0	5
Total		2792	4047	9007	15846

AEMO acknowledges the Traditional Owners of country throughout Australia and recognises their continuing connection to land, waters and culture. We pay respect to Elders past and present.

Table 2 contains a summary of the number of Primary Dispatch Intervals in which Constraints were relaxed. The majority (57%) of intervals had no relaxed Constraints (N=0) meaning that the Dispatch Algorithm found a feasible solution without the need to violate any constraints.

Table 2 – Amount of Primary Dispatch Intervals with various numbers of relaxed Constraints for Q1 of 2026

N	0	1	2	3	4	5	6	7	8	9	10	>10
Number of Primary Dispatch Intervals with N relaxed Constraints	14,662	9079	1267	105	387	304	52	6	29	26	3	0
Percentage of Dispatch Intervals with N relaxed Constraints	57%	35%	5%	0%	1%	1%	0%	0%	0%	0%	0%	0%