

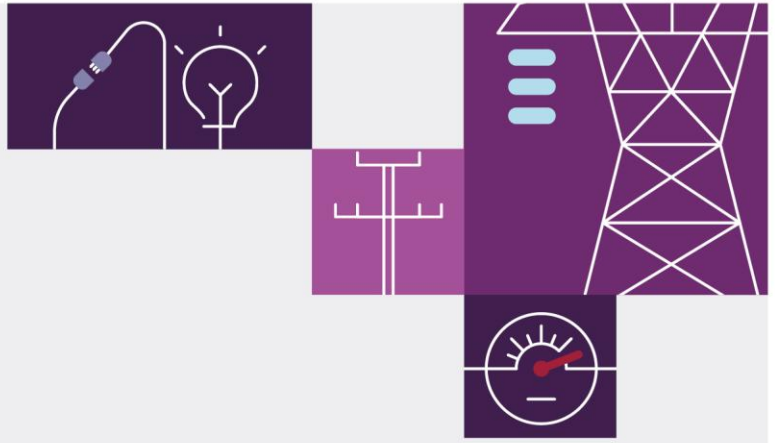
WEM Relaxed Constraints

December 2025

Q3 2025

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 Q3 of 2025

Constraint Type	Description	July	August	September	Total
Tranche Quantity Upper Bound Constraint (Dispatch Algorithm Formulation 2.4.2)	Constraint that implements the upper bound on the Tranche Quantity variable.		118	946	1064
Tranche Quantity Lower Bound Constraint (Dispatch Algorithm Formulation 2.4.3)	Constraint that implements the lower bound on the Tranche Quantity variable.		439	701	1140
Essential System Service Maximum Provision Percentage Constraint (Dispatch Algorithm Formulation 2.4.9)	Constraint that ensures the provision of an Essential System Service by a Facility is no more than a given percentage of the total Essential System Service requirement.			2	2
Regulation Lower Requirement Constraint (Dispatch Algorithm Formulation 2.4.10)	Constraint that ensures the total procured Regulation Lower Service is equal to or greater than the Regulation Lower requirement.			1	1
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.			5	5
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 Facility's Initial MW quantity.	113	343	60	516

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	July	August	September	Total
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.		5	132	137
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.	96	36	109	241
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.		8	73	81
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.		6	73	79
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.		6	41	47
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.	11	12	12	35
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.			15	15
Fast Start Inflexibility Profile Mode 2 Constraint (Dispatch Algorithm Formulation 2.4.29)	Constraint that ensures the times provided in Real-Time Market Submissions for Dispatch Inflexibility Profiles for Fast Start Facilities are respected.		2	8	10
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.		2	546	548
Contingency Reserve Lower Service Requirement Constraint (Dispatch Algorithm Formulation 2.4.53)	Constraint that ensures the total quantity of procured Contingency Reserve Lower service is greater than the Contingency Lower Requirement Variable.		14	12	26
Total		220	991	2736	3947

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.

Table 2 – Amount of Primary Dispatch Intervals with various numbers of relaxed Constraints for Q3 of 2025

N	0	1	2	3	4	5	6	7	8	9	10	>10
Number of Primary Dispatch Intervals with N relaxed Constraints	23,119	2940	356	40	33	7	0	0	1	0	0	0
Percentage of Dispatch Intervals with N relaxed Constraints	87%*	11%	1%	0%	0%	0%	0%	0%	0%	0%	87%	0%

*The majority (87%) of intervals had no relaxed Constraints (N = 0) meaning that the Dispatch Algorithm found a feasible solution without violating any Constraints.