

Primacy Rules for Service Conflicts Use Case Prioritisation Supporting Slides Open Networks WS1A P5

December 2021

Finalised Primacy Principles

The table below shows the finalised set of Primacy Principles, as previously discussed in the Focus Group and the product workshops:

Each Primacy Rules must (in priority order)
Deliver the least Whole Electricity System cost to consumers
Facilitate Fair, Accessible and Efficient Markets
Be clear, transparent, consistent, inclusive and deliverable

Underpinning these principles, there is a requirement to ensure the ESO and DNOs can continue to (in priority order):

- Efficiently manage national system balance and overall operability
- Ensure Transmission Network Security, and
- Ensure Distribution Network Security.

Use Case Scoring Criteria: Negative Criteria

Criteria	Reason for Criteria	Services Removed
Has the service ceased or will cease in the next 12 months?	Rules are unlikely to provide benefit as the service will close ahead of product delivery.	ODFM
Is the service rarely procured?	We want to focus on the highest value services. We have therefore de-prioritised the rarest ones.	GTLF, BM Start Up, Additional GTs, Demand Turn Up
Is the service very specific to a particular technology/generally only at Transmission level?	As above	Pumped Storage – specific services
Emerging Services. Those in development either through the main businesses or via innovation.	The details of these services are too uncertain to develop defined rules. For those under innovation, they may not eventually be deployed.	Dynamic Moderation, Dynamic Regulation, Quick Reserve, Slow Reserve, Distributed Restart, the Non-DSO Services, DNO led Reactive Power services, RaaS.
No potential for conflict.	Where there is no potential for conflict, then there is no need to develop Primacy Rules.	The interaction of DNO outages and services on different assets.

Use Case Scoring Criteria: Positive Criteria (1)

The table below show the final set of positive criteria used to initial condense the number of Use Cases:

Criteria	Definition	Reason for Criteria	Scale
Procured Volumes	Amount of service procured by the ESO/DNO available to them at any given time.	Focussing on the largest services.	1 is low volume 5 is high volume
Complexity of solution delivery	How easy is it to implement basic (Minimum Viable Product) Primacy rules for the Use Case combination?	Focussing on deliverables solutions first.	1 is long delivery time and high complexity. 5 is short delivery time and low complexity.
Likelihood of conflict	Based on the operating scenario, how often are Use Cases likely to coincide?	Focussing on the highest volume of conflict first.	1 is not very likely (emergency circumstances). 5 is very likely (in steady state/Pre-Fault).
Existing Mitigation Actions	Based on service stack-ability and other mitigations (e.g. existing data sharing).	Focussing on areas with no current ways of managing conflict.	1 means good mitigations already exist. 5 means no mitigations exist.

Outcome of Use Case Scoring

	Current and In-Development Services		Service validation	Sustain (GTU/DTD)	Sustain (GTD/DTU)	Secure (GTU/DTD)	Secure (GTD/DTU)	Dynamic (GTU/DTD)	Dynamic (GTD/DTU)	Restore (GTU/DTD)	Restore (GTD/DTU)	Generation led ANM (export limitation)	Demand led ANM (import limitation)	DNO Outages (Planned)	DNO Outages (Unplanned)
	Service Area	Service		0	0	0	0	0	0	0	0	0	0	0	0
Same Asset	BM	The Balancing Mechanism (BM)	0	11	10.5	12	10.5	11.5	10	10.5	9	16.5	15.5	15.5	15.5
Same Asset	BM	Balancing Mechanism Wider Access	0	11	10.5	12	10.5	11.5	10	10.5	9	16.5	15.5	14.5	14.5
Different Asset Same Area	BM	The Balancing Mechanism (BM)	0	15	14.5	16	14.5	15.5	14	14.5	13	16.5	14.5	0	0
Different Asset Same Area	BM	Balancing Mechanism Wider Access	0	15	14.5	16	14.5	15.5	14	14.5	13	16.5	14.5	0	0
Different Asset Same Area	Reserve	STOR	0	15	14.5	16	14.5	15.5	14	14.5	13	15.5	12.5	0	0
Different Asset Same Area	Frequency Response	Firm Frequency Response (FFR)	0	14	13.5	15	13.5	14.5	13	13.5	12	14.5	13.5	0	0
Different Asset Same Area	Frequency Response	Mandatory Response Services	0	14	13.5	15	13.5	14.5	13	13.5	12	14.5	13.5	0	0
Different Asset Same Area	Constraint Management	DER TCM (RDPs)	0	14	13.5	15	13.5	14.5	13	13.5	12	15.5	12.5	0	0
Different Asset Same Area	Inertia	Stability Pathfinder	0	14	13.5	15	13.5	14.5	13	13.5	12	15.5	13.5	0	0
Different Asset Same Area	Capacity Market		0	15	14.5	16	14.5	15.5	14	14.5	13	16.5	14.5	0	0

Use Cases to take forward

We can only take subset of the highest use cases forward. This should balance deliverability and ambition to solve the widest number of cases.

The ones we propose to take forward are:

- **STOR** and **generation-led ANM** on **different assets** in the same area.
- **DNO services** and the **transmission constraint management** service on **different assets** in the same area.
- The **BM** and **generation-led ANM** on **different assets** in the same area.*

**We foresee significant complexity in this use case and so we aim to investigate potential rules and systems in ED1 with implementation expected to in ED2. Due to its scale and importance we will be taking it forwards so that progress can be made, with testing and implementation of the rules expected in the subsequent increments.*

We hope that initial selection will then help unlock an number of others.

Next Steps

- Develop the Primacy Rules Framework.
- Create the first Rules for the chosen Use Cases

Ref	Product Element	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	
0.1	Develop and agree Primacy principles and a prioritised list of likely use cases	Dark Green	Dark Green	Dark Green																		
1.1	Develop draft Primacy Rules				Dark Green	Dark Green	Dark Green	Dark Green														
1.2	Develop the necessary processes and information sharing needed to support the rules					Dark Green	Dark Green	Dark Green														
1.3	Implement the designed processes and information flows								Light Green	Light Green	Light Green											
1.4	Test the rules											Light Green	Light Green	Light Green								
1.5	Review the rules and processes and establish roll out process													Dark Green	Dark Green	Dark Green						
1.6	Publish V1.0 of Rules, proposed review periods and target date for roll-out at scale																Dark Green	Dark Green				
1.7	Establish Governance process for Primacy rule reviews																Dark Green	Dark Green	Dark Green	Dark Green	Dark Green	
1.8	Implement Rules and Processes across DNOs																Light Green	Light Green	Light Green	Light Green	Light Green	Red