

ESB Networks & EirGrid Joint System Operator Programme Webinar

09 July 2026





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This session will not be recorded; however, by joining this webinar on Teams, your name will be visible to other attendees on the call today.

The Q&A at the end of the session will be limited to the questions posted on Slido which relate directly to the content presented today.

Agenda

1 Introduction & Recap of Previous Webinars

2 Review of TSO-DSO Obligations Under PR6

3 The TSO-DSO Operating Model & Coordination Framework

4 The 5 Pillars of JSOP & 2026 Milestones

5 MYP 2027 -2030 Call for Input & Next Steps

6 Q&A

Speakers



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Introduction & Recap of Previous Webinars



DSO	Distribution System Operator
JSOP	Joint System Operator Programme
TSO	Transmission System Operator



Why?

Resilient Electricity Supply
TSO-DSO co-ordination is essential for a successful energy transition and long-term resilience of electricity supply and demand.

Optimised System
An approach which optimises the electricity system as a whole rather than focusing on the distribution or transmission systems in isolation.

JSOP is Core Theme for PR6
The TSO-DSO Operating Model is a core theme of the Joint TSO-DSO Price Review 6 Incentive.

A Future-Fit Power System
The JSOP aims to establish and secure a power system that is future-fit and enabled by widespread demand side flexibility.

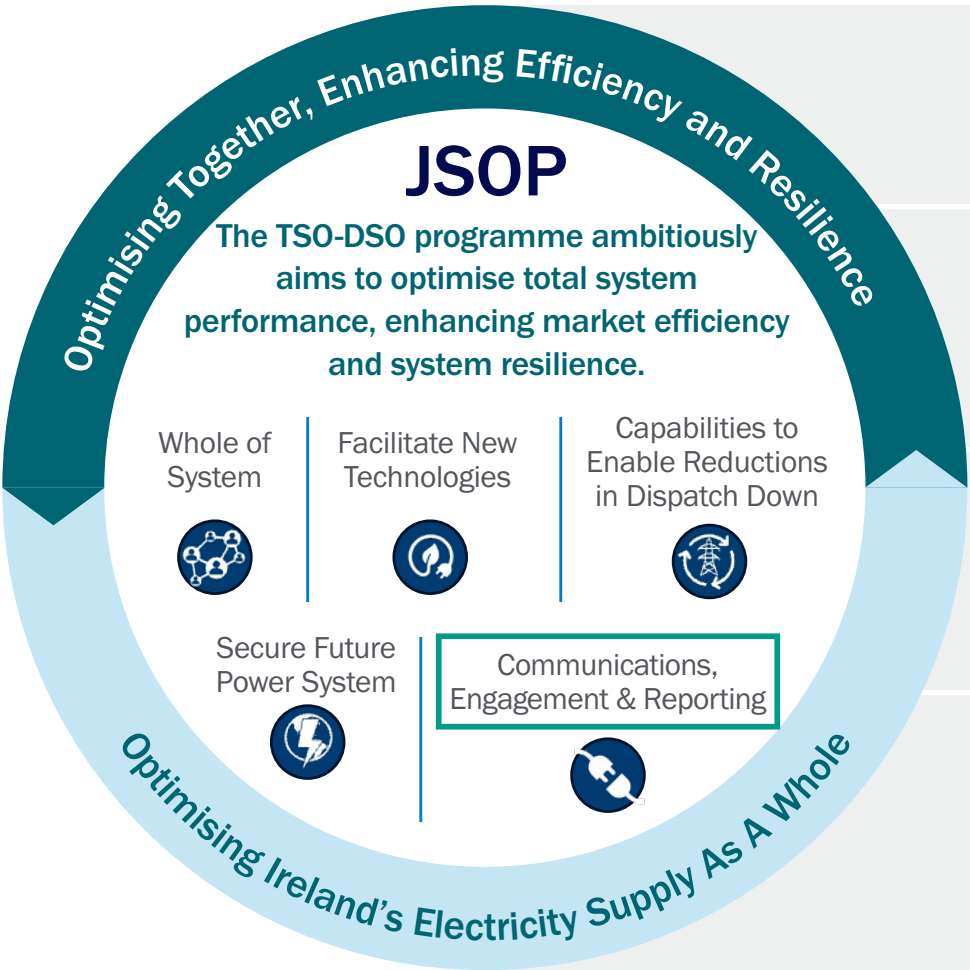
How?

Flexible and Efficient Energy Supply
The TSO and the DSO will work together to ensure efficient procurement and dispatch decisions are made across TSO and DSO led markets

Coordination of System Operators
By improving processes for demand side units' participation in all markets and coordination on the technologies required to achieve significant demand side flexibility.

Distribution-Connected Customers
Building a working system where there is flexibility of resources which aims to provide services to both System Operators and are able to stack revenues across different markets.

Facilitating New Technology & System Services
Actively progressing and testing the co-ordination on the technologies by system operators to achieve 15-20% demand side flexibility by 2025 and 20-30% demand side flexibility by 2030.



Webinar 01

- Focused on the WHY?
- Background to JSOP
- Introduction to operating model
- Challenges on the system
- Drivers for change

June 2024

Webinar 02

- Focused on the WHAT?
- High level process
- Challenges on the system
- High level use cases

June 2024

Webinar 03

- Focused on the HOW?
- Discuss key/mature concepts and how they impact participants
- Development approach
- Approach to further industry engagement

December 2025

Webinar 04

- Focus on the NOW
- Discuss JSOP's progress and plans
- MYP 2027 -2030 Call for Input & Next Steps



July 2026!



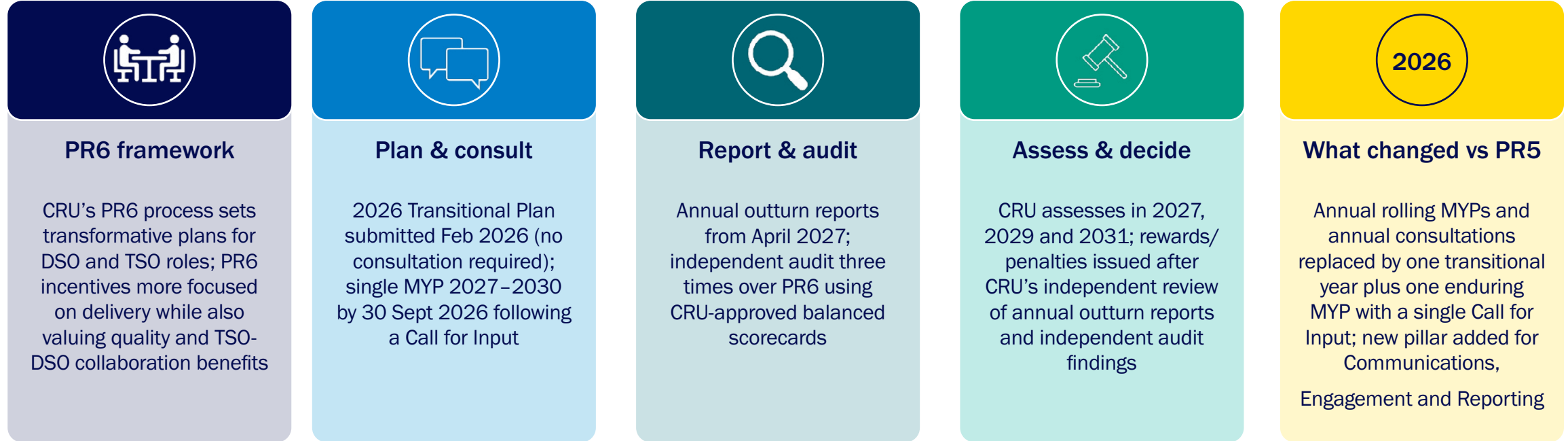


Review of TSO-DSO Obligations under PR6



Background - The PR6 Planning & Assurance Cycle

CRU	Commission for Regulation of Utilities
DSO	Distribution System Operator
MYP	Multi-Year Plan
TSO	Transmission System Operator



Requirement	Feb - 26	Sep - 26	Apr - 27	Apr - 28	Apr - 29	Apr - 30	Apr - 31
2026 annual plan submission	X						
2026 annual scorecard submission	X						
Multi-year plan submission		X					
Multi-year scorecard submission		X					
Outrun report			X	X	X	X	X
Audit report			X		X		X
Assessment and reward / penalty given			X		X		X

Consistent with the PR6 Final Determination (CRU2025197), the joint programme is guided by five high-level strategic objectives:

Deliver infrastructure and capabilities at pace to support decarbonisation

Enhance system efficiency while protecting customer interests

Ensure compliance with security of supply standards

Drive smarter, more flexible, digitally enabled networks

Customers are engaged & part of decision making



The TSO-DSO Operating Model & Coordination Framework



A TSO-DSO Operating Model is a description of the set of agreements, frameworks, rules, processes, protocols, and systems that enable safe and secure coordination between the TSO and DSO, ensuring they inform each other about actions that impact the other's operations in the near-time and real-time timeframes, to agree on how to operate distribution-connected resources participating in both TSO and DSO market/service arrangements.



What it is

- Conceptual aspects and principles of how the TSO and DSO will functionally operate
- Defines roles and responsibilities
- Describes the interfaces and information shared and used in TSO and DSO operations
- Includes medium-term and short-term operational timeframes



Why it is important

- Ensures a coherent approach to optimising and coordinating operation of the electricity system
- Defines governance, accountability, and control for operational decision making
- Facilitates changes in production and consumption while delivering efficient solutions consumers

TSO-DSO Op Model Updates & Upcoming Activity

DSO Distribution System Operator
TSO Transmission System Operator



2025 H2

Conceptual design

TSO-DSO Operating Model conceptual design completed and jointly agreed, including a phased implementation approach

2026 H1

Implementation actions

Phase 1 implementation actions identified to help develop an agreed implementation approach

2026 H1

Coordination Framework

Framework approach developed — allowing coordination to scale between TSO & DSO

2026 H2

Phase 1 detailed workshops & outputs, Phase 2 scoping

Joint sessions between TSO & DSO to develop final detailed aspects required to agree an implementation approach for Phase 1 of the operating model. This also enables the scope of Phase 2 to be agreed

Ongoing activity

TSO/DSO Co-ordination Framework Concept

DSO	Distribution System Operator
JSOP	Joint System Operator Programme
TSO	Transmission System Operator



What It Is

- Joint TSO-DSO initiative to define a structured “coordination framework” across major operational interfaces
- Framework to allow coordination to be formalised between TSO & DSO, organising relevant rules, processes, methodologies, protocols, interfaces, etc.
- Covers topics such as market interoperability, primacy rules, data exchange, governance, change management, reporting, etc.



Benefits of this Framework Concept

- Scalable foundation for JSOP maturity as the programme evolves
- Single source of truth for TSO-DSO rules, processes and interfaces
- Regulatory clarity and auditability for whole-of-system obligations
- Greater transparency and more efficient joint operations

Market Access



Governance & Policy



Operational Coordination



Data, System & Implementation





The 5 Pillars of JSOP and 2026 Milestones



JSOP Pillar Overview

WOS

SFPS

FNT

CERDD

CER

Whole of System (WOS)



Focuses on optimising the system as a whole rather than treating the transmission and distribution systems separately

Secure Future Power System (SFPS)



Addresses long-term challenges and leverages opportunities created by high renewables penetrations, high volumes of distributed energy resources (DER), and widespread demand side flexibility

Facilitate New Technologies (FNT)



Unlocks the potential in processes and systems to support the co-ordination of transmission and distribution operations, and markets being developed. Supports the government's Climate Action Plan targets

Capabilities to Enable Reductions in Dispatch Down (CERDD)



Contributes towards the objective of developing initiatives which will have a key role in reducing dispatch down of renewable generation

Communications, Engagement and Reporting (CER)



Promotes transparency of new processes through effective communication and stakeholder engagement activities

The 5 Pillars of JSOP & 2026 Milestones

WOS

SFPS

FNT

CERDD

CER

ToE Table of Equivalence



JSOP Joint System Operator Programme

Whole of System (WOS)

Focuses on optimising the system as a whole rather than treating the transmission and distribution systems separately

1

Deliver a unified TSO-DSO Operating Model

2

Establish a robust TSO-DSO coordination and governance arrangements

3

Integrate wholesale and local flexibility markets

4

Enhance data exchange, forecasting and operational visibility across the electricity system

5

Support compliance with EU network codes and Ireland's 2030 energy objectives



WOS1.1 - Operating Model Phase 1 Detailed Conceptual Design and Implementation Approach Agreed



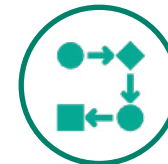
WOS1.2 - Operating Model Detailed Conceptual Design – Phase 2 Scope Agreed



WOS1.3 - TSO/DSO Co-ordination Framework Concept Agreed



WOS1.6 - Table of Equivalences (ToE) Developed



WOS2.2 - EU Network Code on Demand Response – Implementation Assessment



WOS3.1 - TSO/DSO Data Exchange: Project Brief



WOS3.2 - TSO/DSO Data Exchange: Project Charter & Funding Approach

The 5 Pillars of JSOP & 2026 Milestones

WOS

SFPS

FNT

CERDD

CER

UFLS Under Frequency Load Shedding

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JSOP Joint System Operator Programme

Secure Future Power System (SFPS)

Addresses long-term challenges and leverages opportunities created by high renewables penetrations, high volumes of distributed energy resources (DER), and widespread demand side flexibility

1

Strengthen technical standards and grid connection requirements

2

Enhance emergency demand shedding arrangements

3

Maintain and improve power system restoration capabilities

4

Support a secure and resilient energy transition



SFPS3 - Adopt Updated Demand Standards – D-Code Modification



SPFS5 - Submit for approval the Fault Ride-Through (UVRT) Requirements for Type A Generators



SFPS6.1 - Complete UFLS (Demand Shedding) Studies



SFPS7 - Power System Restoration – Technical Review

The 5 Pillars of JSOP & 2026 Milestones

WOS

SFPS

FNT

CERDD

CER

QTP Qualification Trial Process



JSOP Joint System Operator Programme

Facilitate New Technologies (FNT)

Unlocks the potential in processes and systems to support the co-ordination of transmission and distribution operations, and markets being developed. Supports the government's Climate Action Plan targets

1

Drive innovation through coordinated TSO-DSO technology trials

2

Improve flexibility and demand response participation

3

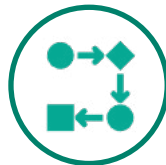
Enable the integration of emerging low-carbon technologies and storage

4

Remove barriers and create pathways for new services and market participants



FNT1 – TSO-DSO Collaboration on QTP Trial(s)



FNT3 - Implement Pilot 2 (Dynamic Instruction Sets) Improvements



FNT5 – TSO-DSO Electricity Storage Sandbox Project Initiation



FNT9 - Commence Hybrid MEC Sharing Implementation

Capabilities to Enable Reductions in Dispatch Down (CERDD)

Contributes towards the objective of developing initiatives which will have a key role in reducing dispatch down of renewable generation

1

Enhance TSO-DSO coordination of reactive power and voltage management

2

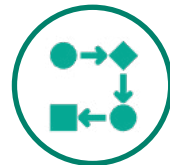
Optimise renewable generation performance through proactive operational reviews

3

Enable the secure integration of flexible distributed energy resources

4

Develop co-ordinated capabilities which can reduce dispatch down and maximise renewable energy utilisation through a whole-system approach



CERDD4.1 - Trial of the Annual Reactive Power Settings Review Process



CERDD4.3 - Plan for Reactive Power Management at Transmission / Distribution Interfaces



CERDD6 - Protocols for New Flexible Connections

Communications, Engagement & Reporting (CER)

Promotes transparency of new processes through effective communication and stakeholder engagement activities

1

Focus on communicating and engaging with relevant stakeholders

2

Planning industry sessions, webinars, knowledge transfer, updates at forums focusing on receiving and incorporating feedback

3

Standardising methods of TSO-DSO communication and reporting and developing a governance model for national coordination including European stakeholders

4

Coordination with SONI and NIE Networks as required



CER2 - PR6 Multi-Year Plan 2027-2030 (Call for Input & final submission)



CER4 - JSOP Stakeholder Engagement Plan



CER5 - Public Webinar and Customer Feedback



CER6 - Input to EU Network Code Developments



MYP 2027-2030 Call for Input



Call for Input on JSOP MYP 2027-2030 & Next Steps

MYP Multi-Year Plan



01



Call for Input intended to be published next week. Views on and input into the TSO-DSO PR6 MYP 2027–2030 for the TSO-DSO Coordination Incentive are invited over a six-week period.

02



The finalised MYP 2027–2030 will be submitted to the CRU by **30 September 2026**

03



The CRU will issue its decision on deliverables, milestones, and weightings for the 2027–2030 period by **31 December 2026**.

Call for Input on JSOP MYP 2027-2030 & Next Steps (continued)



Responses can be submitted through the EirGrid Consultation Portal or via the ESB Networks JSOP mailbox: jsop@esbnetworks.ie



Please note that, in the consultation response document(s), the **DSO and TSO will jointly respond to respondents' comments and feedback within the scope of this call for input only**. Comments and feedback outside of scope will not be included in the response document(s).



If your response is marked as confidential, it will not be shared outside of EirGrid plc, ESB Networks, and the Commission for Regulation of Utilities (CRU). If your response is not marked as confidential, it may be shared publicly in our response document, on the EirGrid consult.ie portal, and with CRU, and may be shared with relevant third parties as requested.



Q&A

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Q&A

Please use the Slido link for comments, reactions, or questions on JSOP.



<https://app.sli.do/event/iqK2NLFF7nYbkGipRQuVJs/live/questions>



Adrienne Behan
ESB Networks, JSOP Lead



Martin Kerin
EirGrid, JSOP Lead

We'd love to hear your feedback!

Please use the QR code to submit your feedback
or kindly go to chat box to click the survey link.





Thank You

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Appendix



CER	Communications, Engagement & Reporting	MYP	Multi-Year Plan
CERDD	Capability to Enable Reductions in Dispatch Down	NCDR	Network Code on Demand Response
CRU	Commission for Regulation of Utilities	NEDS	National Energy Demand Strategy
DCU	Demand Consumption Unit	PR6	Price Review Six
DER	Distributed Energy Resource	QTP	Qualification Trial Process
DSO	Distribution System Operator	SFPS	Secure Future Power System
EV	Electric Vehicle	ToE	Table of Equivalence
FNT	Future New Technology	TSO	Transmission System Operator
JSOP	Joint System Operator Programme	UFLS	Under Frequency Load Shedding
LDES	Long Duration Energy Storage	UVRT	Under Voltage Ride Through
LEU	Large Energy User	WOS	Whole of System
MEC	Maximum Export Capacity		