

# ECP 2-4 Constraints Forecast

Constraints Analysis for Solar and Wind

Final Assumptions

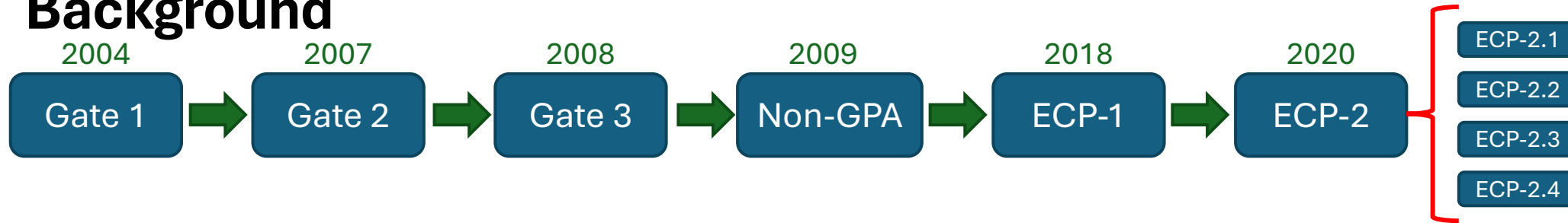


# Agenda

- Background
- Key Metric: Total Dispatch Down
- Analysis Process
- Assumptions
- Study Scenarios
- Timeline and Status



# Background



- The Enduring Connection Policy (ECP) 2-4 is the fourth of initially three, now four batches of connection offers for Renewable Energy Sources (RES) planned under ECP 2 by the Commission for Regulation of Utilities (CRU).
- The ECP 2-4 Constraints Analysis is carried out by EirGrid (as mandated by CRU/20/060 decision on ECP 2) to forecast dispatch down levels for ECP 2-4 wind and solar projects.
- EirGrid plans to publish 12 regional constraints reports that will provide ECP 2-4 developers with information on forecasted dispatch down levels in each region.
- ECP 2-4 applicants include:

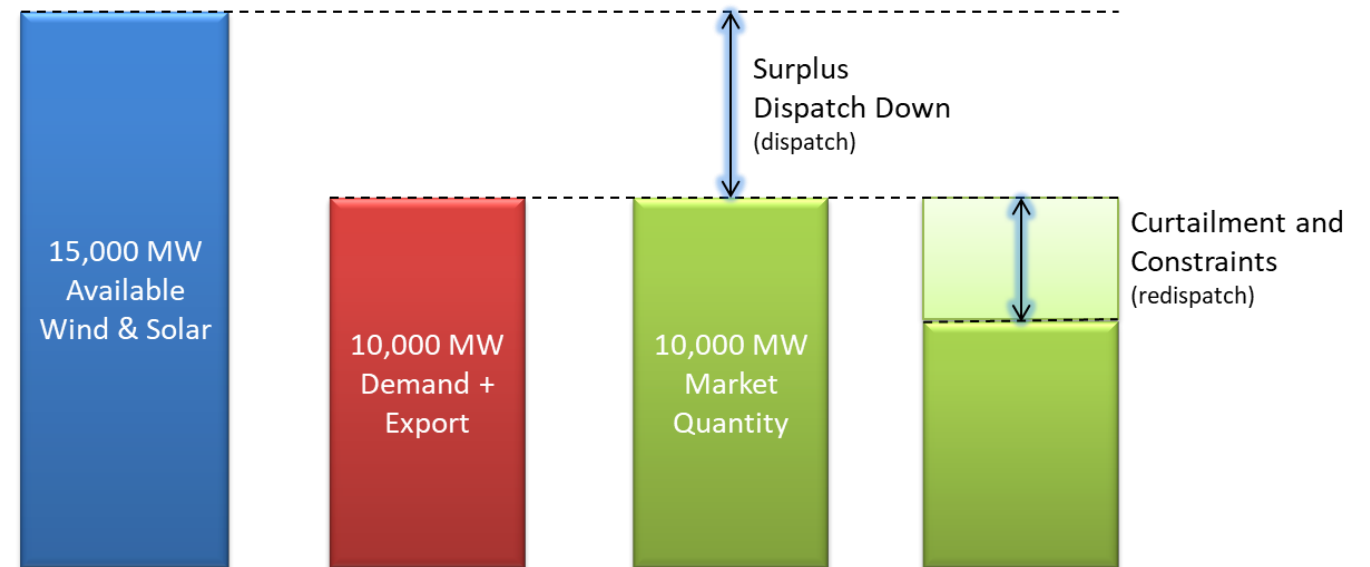
Wind	Solar	Battery
509 MW	1839 MW	1703 MW

# Total Dispatch Down – constraint forecast

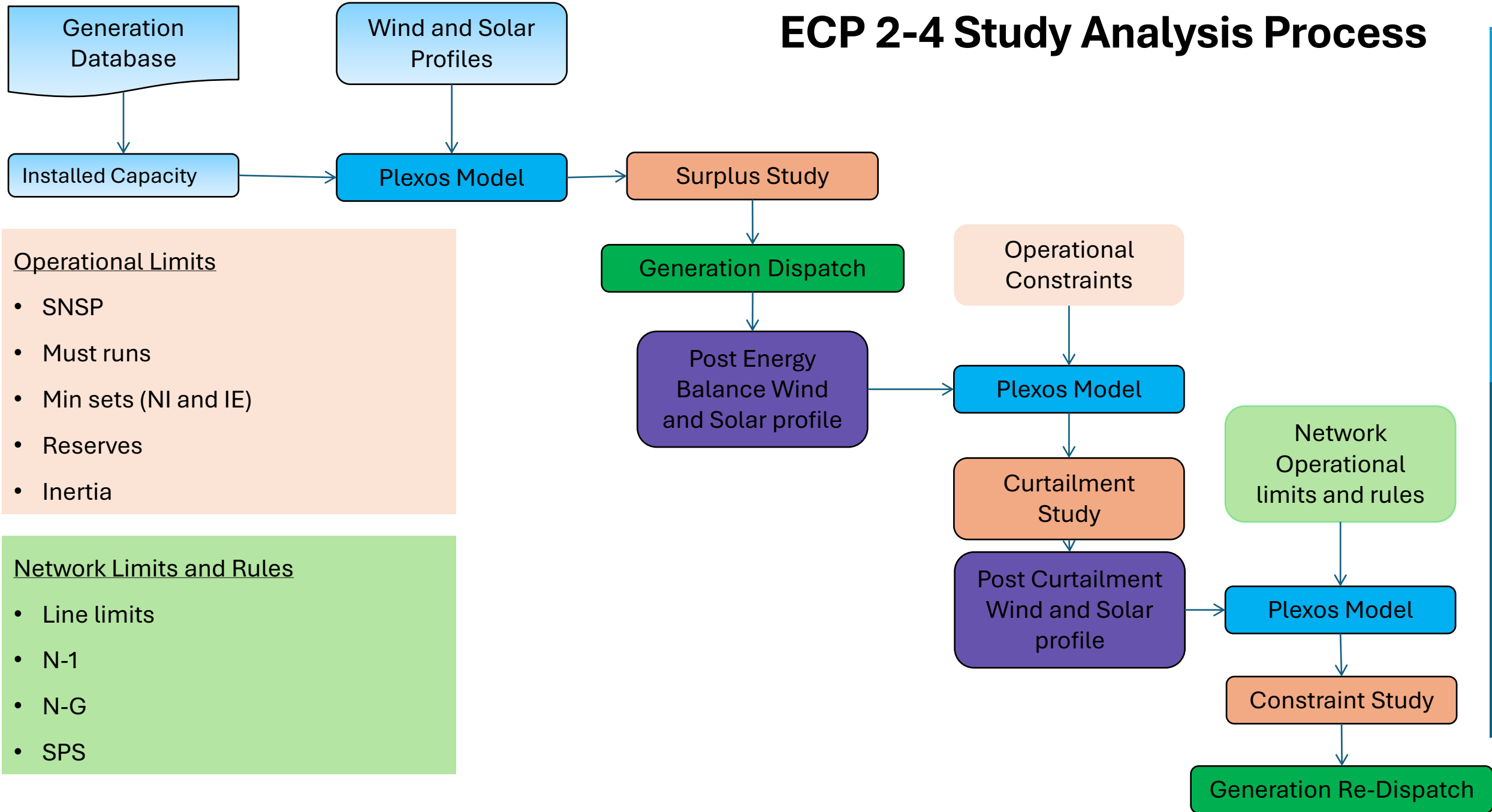
## Total Dispatch Down

- Sum of Surplus, Curtailment & Constraint

Type of Dispatch Down	Definition
<b>Surplus</b>	Dispatch down applied for energy balancing when generation exceeds demand + interconnector export.
<b>Curtailment</b>	Dispatch Down applied to ensure operational limits are met.
<b>Constraint</b>	Dispatch Down applied to manage network constraints.



# ECP 2-4 Study Analysis Process

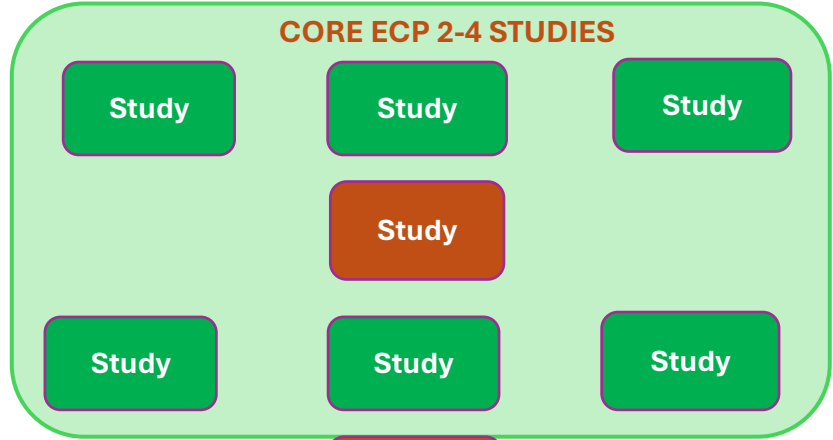
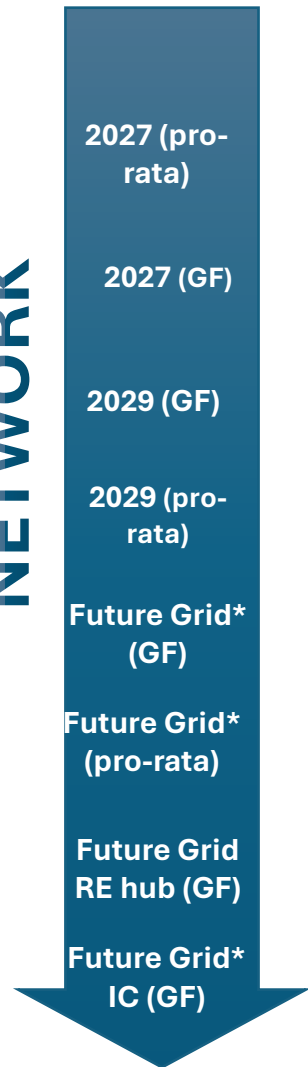


# ECP 2.4 Study Scenarios

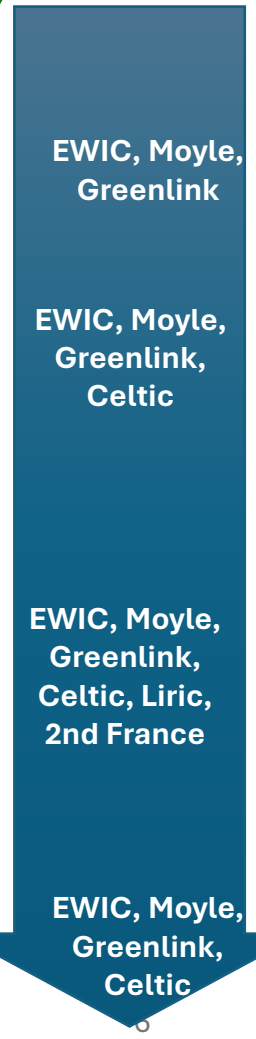
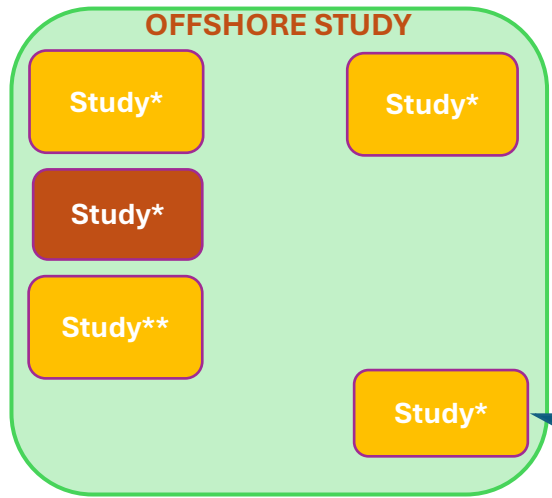
## GENERATION



## NETWORK



ECP 2.3 – 13 scenarios  
 Industry proposed – 18 scenario  
 ECP 2.4 proposed – 16 Scenarios



## INTERCONNECTION

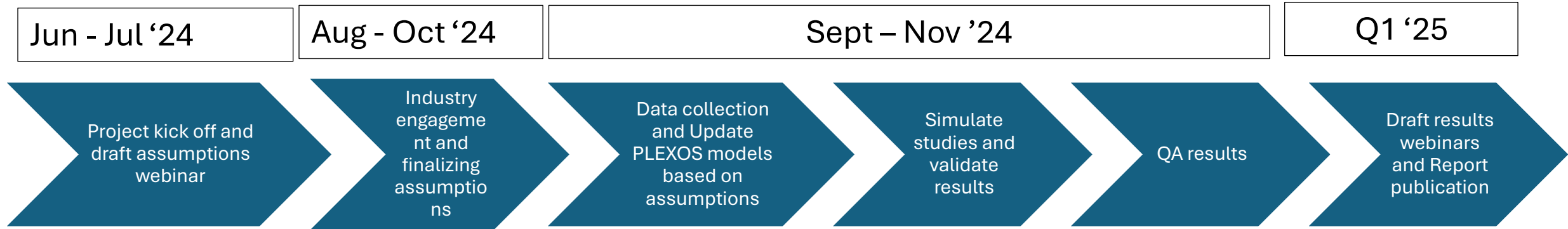
\* SOEF 1.1 based network  
 \*\* potential solutions associated with Re hubs

# Assumptions in ECP 2.4

Assumption	ECP 2.4
Article 12/13 implementation	2027 – base scenario with pro-rata, sensitivity grandfathering 2029 and Future Grid – base scenario with grandfathering , sensitivity pro-rata
Demand	NRAA 2024-2033
Conventional Generation	NRAA 2024-2033 and capacity auction
RES generation (Ireland)	Updated with ECP 2.4 list
Onshore Wind Profile	Profiles from 2020. Each node using a representative profile from that area
Offshore Wind and solar Profile	Synthesised 2020 offshore profile (procured from an external vendor).
Operational Constraints	SNSP : 2027 – 85%, 2029 – 90%, FG – 95% Inertia : 23GWs for all years (Including Sync Comp) Min sets – 2027 – 7 (4,3), 2029 – 4 (2,2), FG – 3

Assumption	ECP 2.4
Interconnector	2027 – EWIC, Greenlink, Moyle (Export 400MW). 2029 – EWIC, Greenlink, Moyle (Export 500MW), Celtic, North-South 2. Future Grid – EWIC, Greenlink, Moyle (Export 500MW), LirIC, Celtic, North-South 2, 2 <sup>nd</sup> France*.
Batteries	Based on current offers and applications. Used for maintaining reserve (POR, SOR, TOR1 & TOR2). 2 cycle per day limit. Portion of the longer duration storage to provide energy arbitrage
Outage assumptions (Transmission)	Consistent with ECP 2.3 and ECP 2.2
Reinforcement Assumptions	2027 and 2029: Network Delivery Portfolio Future Grid: SOEF 1.1 Roadmap
Northern Ireland Assumptions	Update with NI generation data and network data
DLR	10-30% additional line rating based on the wind ( <b>still to confirm</b> )
Potential solutions associated with Re hubs	<b>Details still to be confirm</b>

# Timeline



## Work Plan and status

- First industry stakeholder engagement meeting – Mid July '24 [**completed**]
- Industry scenario proposal - End of August '24 [**Received**]
- Engagement with Industry representative – September '24 [**Done**]
- Second industry stakeholder engagement meeting – **Mid October '24**
- Final assumptions publication – **Dec'24**
- Draft Results – Q1 '25
- Final area results webinars – Q1 '25



Thank You