19/03/2026

Constraints Forecast for ECP-GSS-1

Proposed Assumptions

Constraints Analysis for Solar and Wind

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Agenda

- Improvements
- Key Changes
- Background
- Study Scenarios
- Assumptions
- Timeline and Engagement Plan

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Improvements

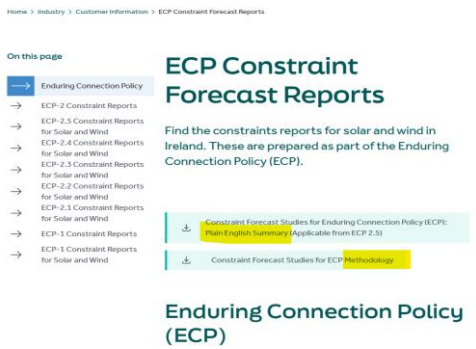
Email address

- Submit Queries
- Invites
- Updates

ecp_constraintsanalysis@eirgrid.com

Website

- Plain English documents
- Methodology Statement
- Rebranding
- Changes to landing page



Reporting

- Build on ECP2.5
- Potentially new reports

Proposed Improvements

ITP
Integrated Transmission Programme

- ECP-GSS-1 will use the Integrated Transmission Programme and Transmission Infrastructure Delivery, replacing the Network Delivery Portfolio.

LDES Modelling
Long Duration Energy Storage

- Review for long duration energy storage.

Interconnector Modelling

- Methodology update has been well received.
- Minor updates may be considered depending on feedback and internal review.

Maintenance Schedule

- Detailed analysis of transmission outage schedule used in the model.

Results

- Reviewing how results are shared with industry based on feedback.

Ongoing Analysis

RES Profiles — Renewable Energy

- A review of the RES profiles used in the model is ongoing.

LDES modelling — Long Duration Energy Storage

- Continued improvements to LDES modelling that won't be included in this iteration.

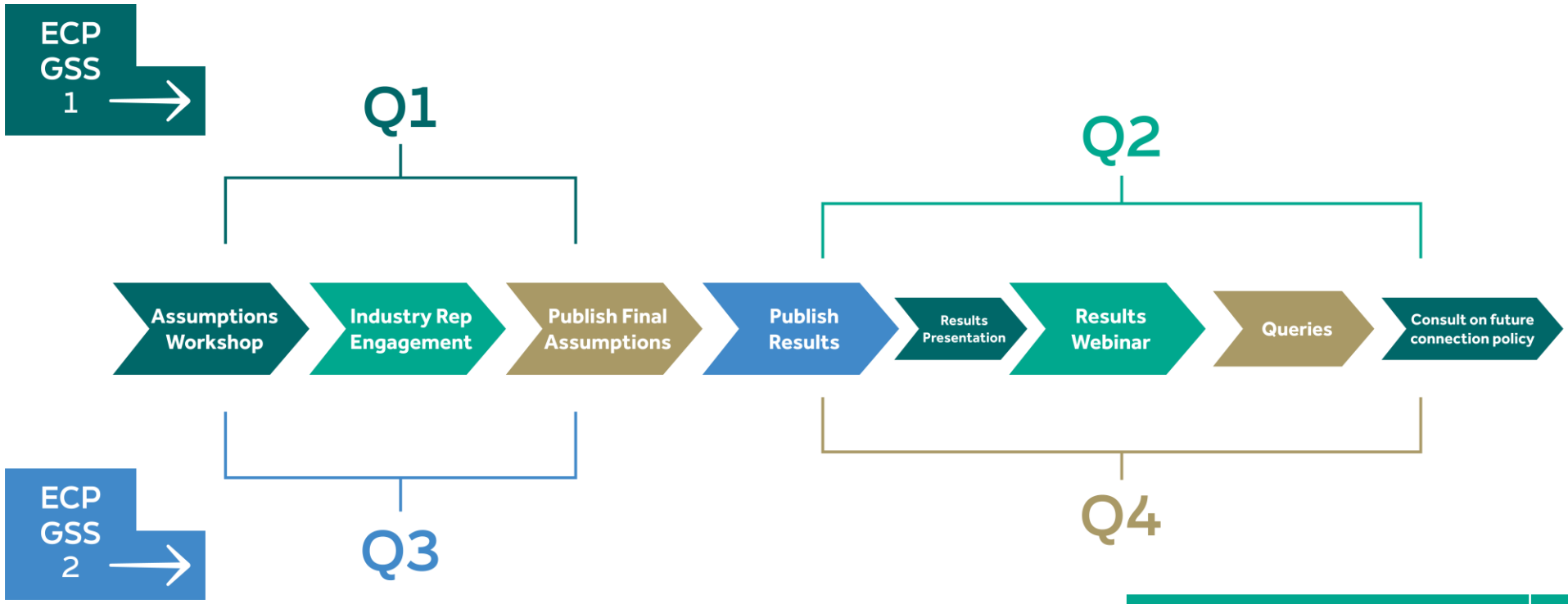
Hybrid modelling — Co-location sites

- Analysis of hybrid modelling methodology.

Re-Hub modelling — Renewable Hubs

- Analysis of renewable hub modelling.

Background



- This is the first batch under the Electricity Connection Policy – Generation and System Services
- Moving to two batches a year
- Lite version for GSS1 and full version for GSS2

Generator Type for ECP GSS1	MEC (MW)
Solar	3158
Wind	1222
Battery	1097
Hybrid	962
Total	6439

Table 1: ECP-GSS-1 applied generation per category

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What is Dispatch Down

Total Dispatch Down: Sum of Surplus, Curtailment & Constraint

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

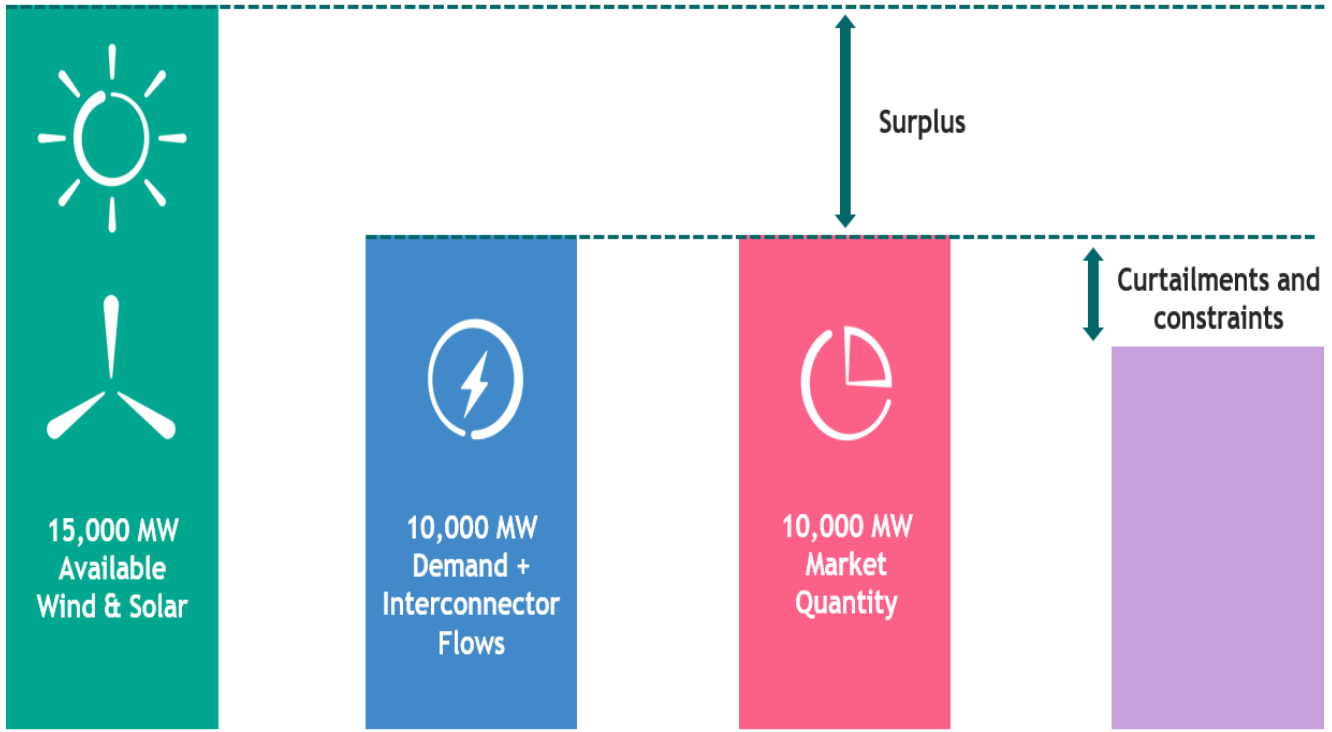
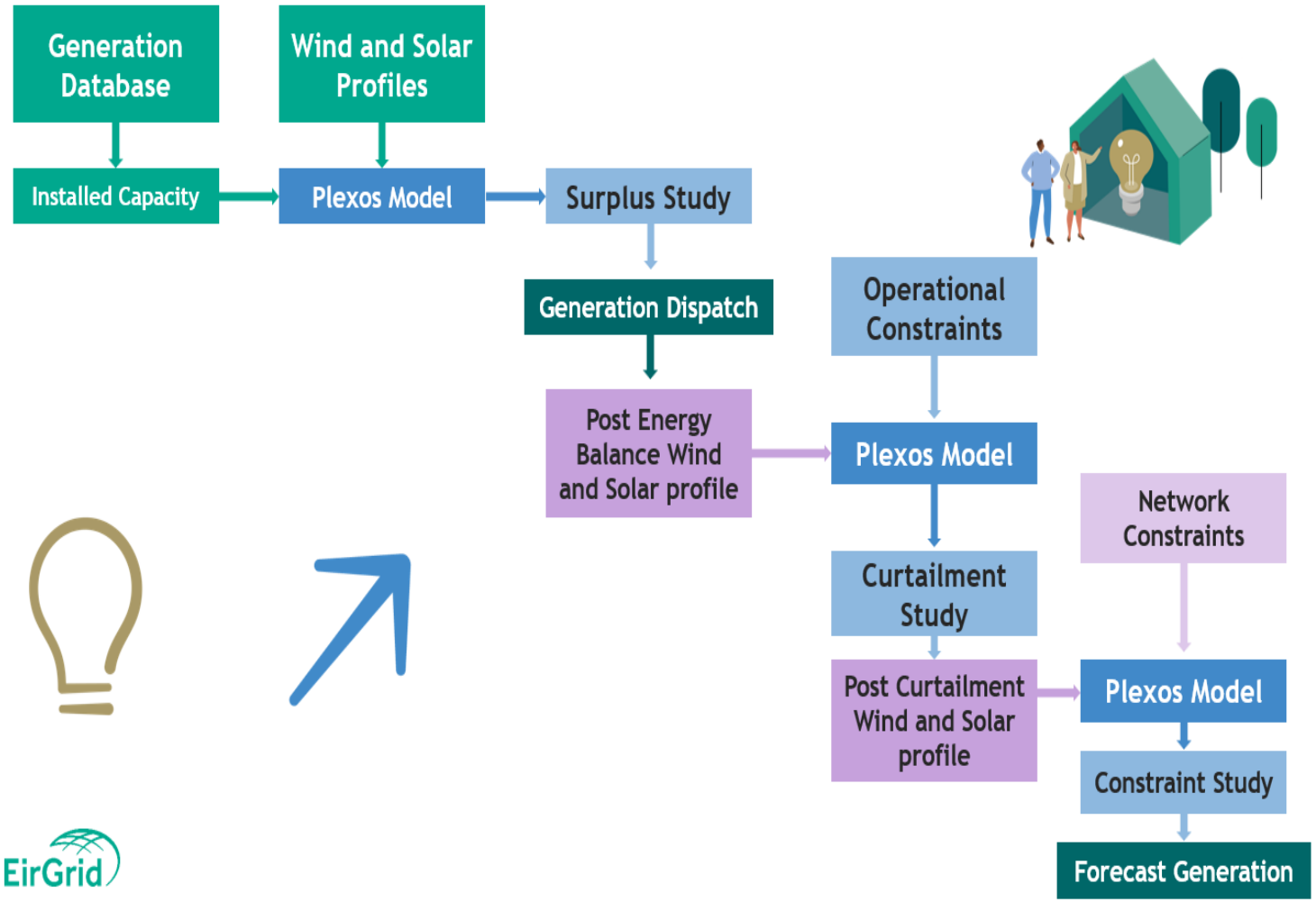


Illustration purposes only

Modelling Process

1. Plexos based model
2. Each scenario has 3 runs – surplus, curtail and constraint
3. Models are run sequentially to calculate surplus, curtailment and constraints
4. The output from the Surplus Study feeds into the Curtailment Study which feeds into the Constraint Study
5. Operational limits and network constraints are added in to successive models



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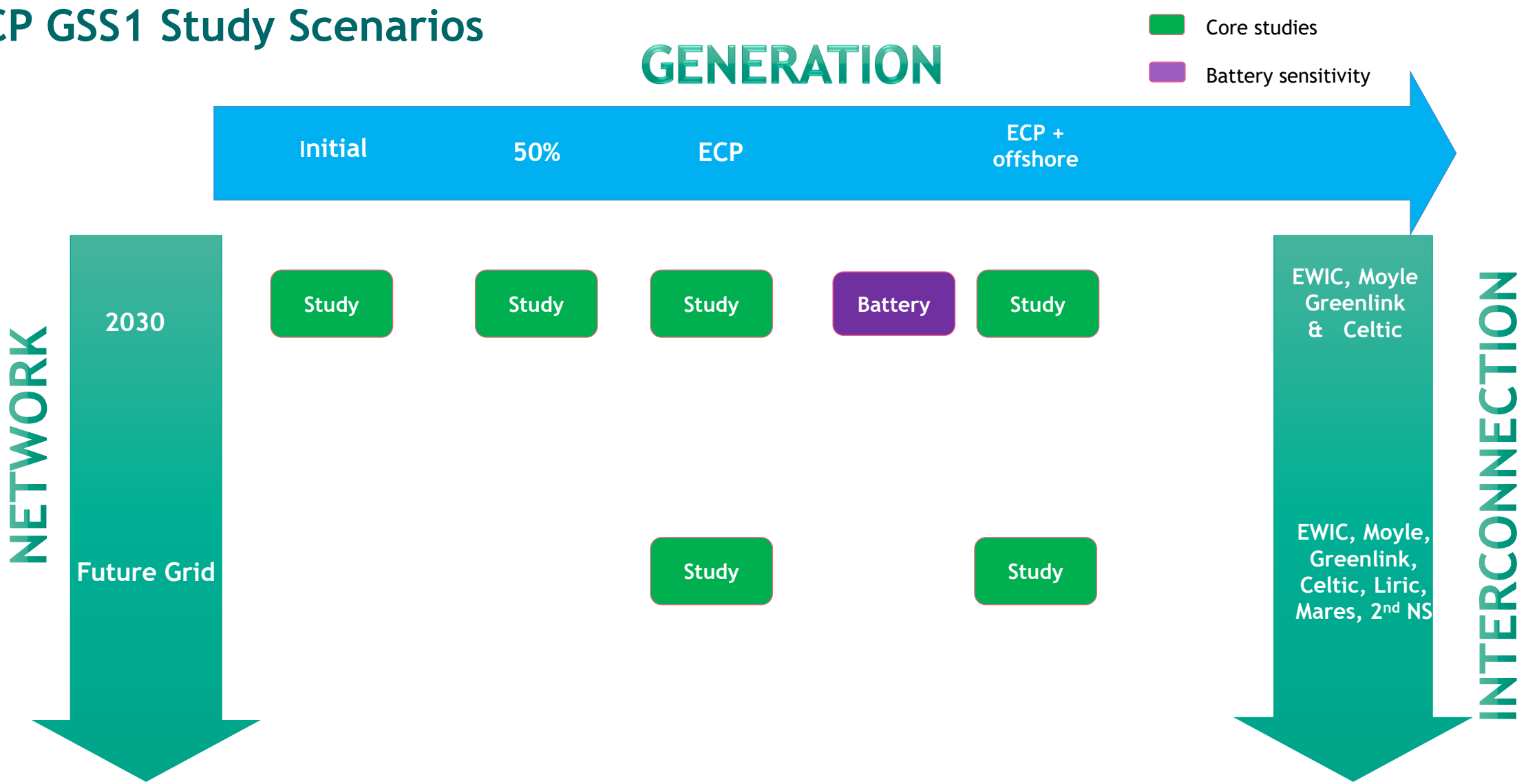
ECP GSS1 Study Scenarios



Maintenance sensitivity scenarios are not displayed but are included

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Assumptions in ECP-GSS-1 compared to ECP 2.5

Assumption	Update
Article 12 and 13	No Change
Demand	No Change
Conventional Generation	No Change
Batteries modelling	No Change
Operating constraints	Standard update
Northern Ireland Assumptions	Standard update
RES generation (Ireland)	Standard update
Interconnector Modelling	Standard update
LDES	Updated methodology
Outage assumptions (Transmission)	Updated methodology
Reinforcement Assumptions	Updated methodology
Dublin Constraints	Updated methodology
Onshore Wind profile	Reviewed in future iterations
Offshore Wind and solar profiles	Reviewed in future iterations
Hybrid units	Reviewed in future iterations

Grandfathering of constraints for the base models with pro-rata sensitivities.

AIRAA 2026-2035 median demand forecast.

AIRAA 2026-2035.

Based on current offers and applications.

Short duration (<= 1hr) for maintaining reserve (POR, SOR, TOR1 & TOR2). Longer duration (>1 hr) for energy arbitrage and replacement reserve.

2 cycle per day limit.

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Based on latest Operational Policy Roadmap and Weekly Operational Constraints Report.
Dublin TCGs are being reviewed.

Based on feedback from SONI.

ECP-GSS-1 generation list.

The updated interconnector modelling methodology is being reviewed.

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Methodology being analysed specifically looking at additional ‘look-ahead’.
Operational envelope not modelled in this iteration.

Continue with 12-month transmission window but a full review of outages is underway.

Network reinforcements included in the ITP and TID will be analysed.

Dublin minimum unit constraint for voltage control and load flow being reviewed.

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A review of the historical profiles used is underway.

Currently modelled as separate units connected to the same node. Alternative modelling methodologies such as MEC sharing is being reviewed.

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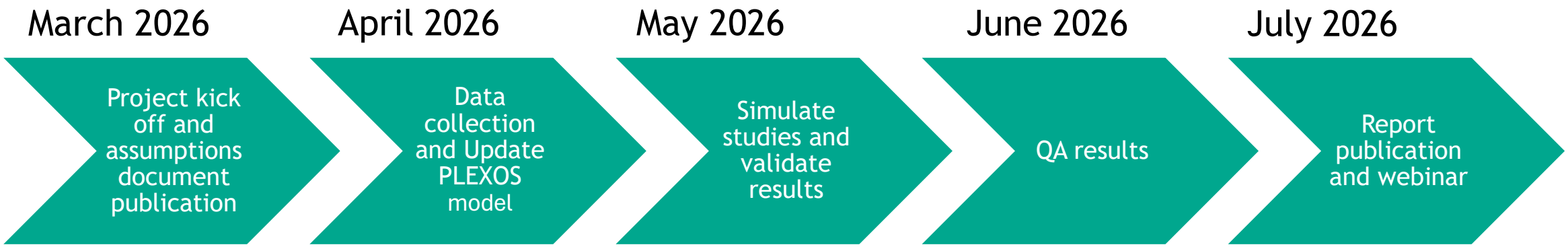
Timeline



Engagement Plan

- Initial Engagement Webinar – 19.03.2026
- Data Freeze Date – 27.03.2026
- Assumptions and Scenario Matrix Finalised – 02.04.2026
- Draft Results Webinar – 26.06.2026
- Publication of Results – 03.07.2026
- Closing date to submit queries – 31.07.2026
- Closing date to respond to queries – 07.08.2026

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Thank You
Questions?