



# System Margins Outlook Ireland

This report is issued every Monday and Friday, excluding bank holidays.

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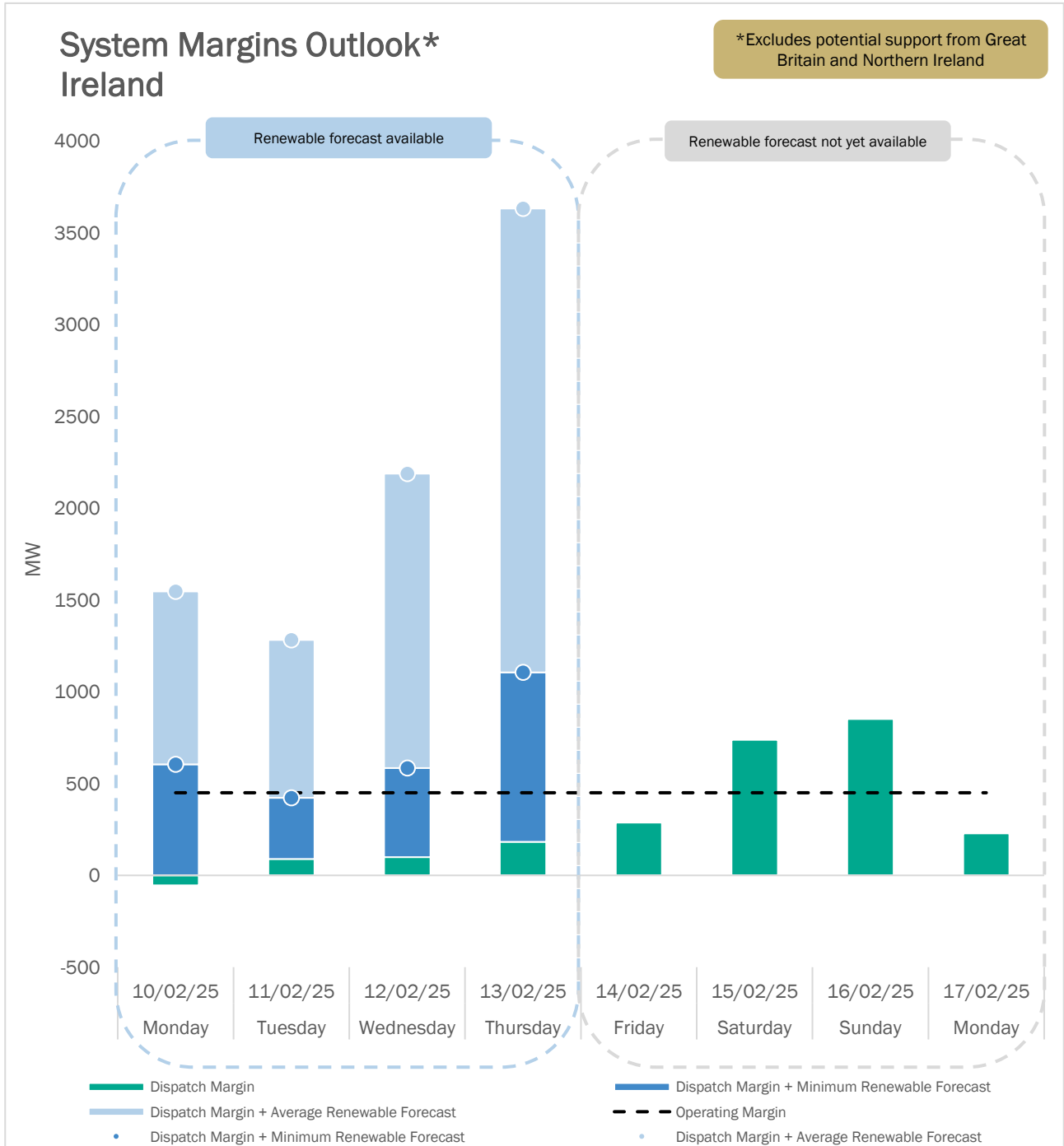
NOTE: Temporary Emergency Generation (TEG) has been included in this report, pursuant to its use in terms of the requirements for the use of non-market based generation in Article 16(2) of Regulation (EU) 2019/941 of the European Parliament and of the Council of 5 June 2019 on risk-preparedness in the electricity sector ('RP Regulation'), as well as the specific requirements for the use Temporary Emergency Generation specified in the Risk Preparedness Plan for Ireland ('RPP'), approved by the Commission for the Regulation of Utilities (CRU) on 31 May 2023. TEG may only be included in margin calculations when the power system would otherwise enter a system Alert State or Emergency State and dispatched where it is evident that market-based measures alone are not sufficient to prevent a further deterioration of the electricity supply situation. As specified in the RPP, Given the out-of-market application of TEG, its impact on the System Margin outlook is reported on separately in a new graph.



# Outlook

## Daily Dispatch Margin and Renewable Generation Forecast

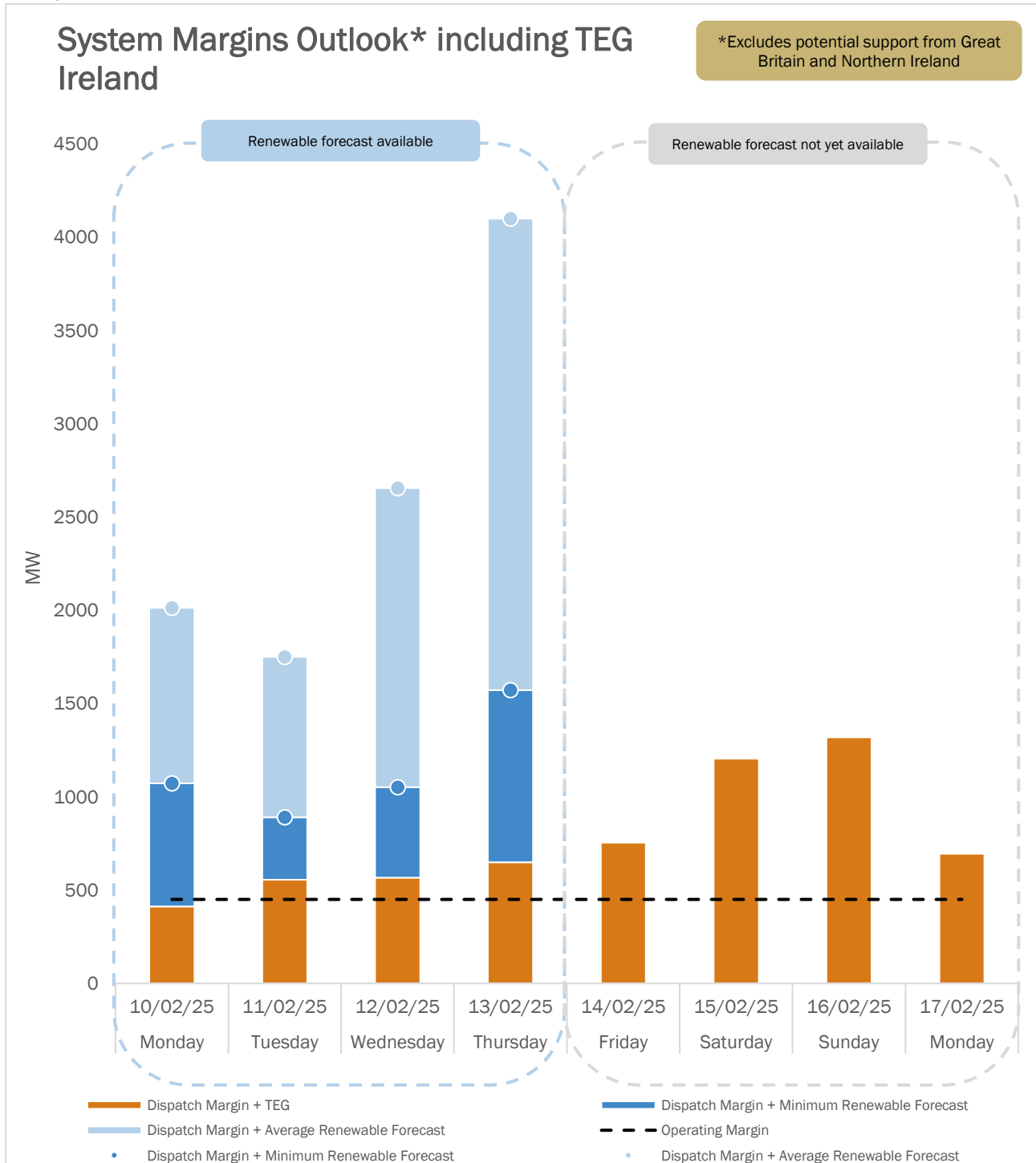
The outlook for the Daily Dispatch Margin (green) and the renewable energy generation forecast is shown below. The renewable generation forecast comprises grid-scale solar and wind energy. The probable low renewable generation between 09:00 and 21:00 (when peak system demand occurs) is shown in dark blue. The average forecast renewable generation between 09:00 and 21:00 is shown in light blue. The renewable generation forecast is shown for four days ahead. If the Daily Dispatch Margin combined with renewable generation is below the operating margin (approximately 450 MW), support via trades and flows on interconnectors between Ireland and Great Britain or Northern Ireland is required to avoid a System Alert.



When a negative dispatch margin coincides with a low renewable generation forecast, the net renewable generation value may appear below the zero axis (low forecast: ●, average forecast: ○). It should be noted that the Daily Dispatch Margin and renewable generation forecast are highly variable. The outlook is based on estimates and is therefore subject to rapid changes.

## Temporary Emergency Generation

Temporary Emergency Generation (TEG) may be included by the System Operator in system margin calculations when the power system would otherwise enter a system Alert State or Emergency State and dispatched where it is evident that market-based measures alone are not sufficient to prevent a further deterioration of the electricity supply situation. The impact of available TEG on the Daily Dispatch Margin and system outlook is shown below.



TEG Availability (MW)	Mon	Tues	Wed	Thu	Fri	Sat	Sun	Mon
North Wall (NW8)	193	193	193	193	193	193	193	193
Huntstown (DG1)	50	50	50	50	50	50	50	50
Shannonbridge (SQ1)	224	224	224	224	224	224	224	224

## Interconnector Availability

Imports via interconnector will be subject to trades on the day. The outlook for the maximum import capacity from Great Britain to Ireland is shown below. In real-time, interconnector trades will be included in the system margin calculation before considering Temporary Emergency Generation.

Interconnector Availability (MW)	Mon	Tues	Wed	Thu	Fri	Sat	Sun	Mon
East-West Interconnector	500	500	500	500	500	500	500	500
Greenlink Interconnector	500	500	500	500	500	500	500	500

## Description of Terms

	Summary
<b>Daily Dispatch Margin</b>	<p>The Daily Dispatch Margin (<b>green</b>) is the anticipated difference between how much dispatchable capacity (generation, batteries, and demand response) is expected to be available to the System Operator, and the forecast peak system demand on the day. The margin takes into consideration local grid constraints.</p> <p>When the margin is negative, available generation is inadequate to meet demand if supply from other sources is not available on a given day. Other sources include renewable generation, flows from Northern Ireland via the North-South Tie-Line, and trades (imports) from Great Britain via the East-West Interconnector (EWIC).</p> <p>This margin can change on any given day, should generation capacity unexpectedly become unavailable due to forced outages or if the demand forecast changes.</p> <p><b>NOTE:</b> The Daily Dispatch Margin with TEG included is shown in <b>orange</b> to indicate that this may only be considered in margin calculations under the conditions defined in Section 3.1(c)(i) of the Risk Preparedness Plan for Ireland.</p>
<b>Renewable Generation</b>	<p>The installed wind and solar generation capacity in Ireland is approximately 4.8 GW. When renewable generation is high, the quantity of dispatchable generation required to meet demand and operational security requirements is reduced.</p> <p>Given the variability in the renewable generation forecast, the impact on the margin of a probable low value (<b>dark blue</b>) and a probable average value (<b>light blue</b>) is shown in the outlook.</p>
<b>Operating Margin</b>	<p>In order to operate the power system securely (i.e. to exceed the ability to meet demand), the Transmission System Operator makes provision for loss of a single largest source of capacity on the day. This operating margin is indicated by a 450 MW provision in the outlook (<b>black</b>).</p>
<b>System Alert</b>	<p>A <b>System Alert (Amber)</b> will be issued by the System Operator on a given day if the operating margin is not met by a combination of available generation, imports and renewable generation (i.e., loss of the single largest unit), and Temporary Emergency Generation capacity.</p>

## System Emergency

A **System Emergency (Red Alert)** will be issued in real time by the System Operator on a jurisdictional basis if there is a high probability that controlled demand reduction may be required, or if this has been instructed. Controlled demand reduction includes procedures for large energy users to curtail demand and for customers to be temporarily disconnected to secure the power system.

