

Weekly Operational Constraints Update

Applicable from 28 September 2020 to 04 October
2020 (Week 40)

Rev 01 October 2020

Disclaimer

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Explanatory Notes

- The purpose of this Weekly Operational Constraints Update is to provide information on any forecasted significant network congestion or other issues that could potentially restrict dispatchable generation in a particular area or to flag if dispatchable generation is required in a particular area. These constraints are in addition to those presented in the monthly Operational Constraints Update document which should be read in conjunction with this document.
- In the analysis, a suite of N-1 contingencies are applied to the base case powerflow, and the resulting flows and voltages are compared against the Operational Security Standards. The N-1 contingencies include the tripping of each item of transmission plant and each generator transformer. Groups of generators / demand / wind etc. can be scaled up or down to determine a secure region of operation (known as transfer analysis or transaction analysis).
- The cases incorporate the latest generation and transmission outage information at the time of the study. This information is published on the EirGrid and SONI websites.
- Typically, from a dispatchable generation perspective the worst thermal constraints occur at peak system demand, and therefore only peak system demand scenarios are studied using transfer analysis. If required, other studies are performed, such as system demand valley where high voltages may be an issue.
- The wind levels in the various scenarios assume a flat profile across Ireland or Northern Ireland. We do not test Ireland wind levels above 2000 MW as, typically above these levels, constraints on dispatchable generation are not as binding due to the availability of the wind generation.
- The binding constraints on the flow on the North-South Tie Line from a thermal and voltage perspective tend to be due to thermal constraints on the Ireland side, save for specific Northern Ireland outages. This is why the Inter-Area Flow (North-South Tie Line Flow) Constraints Forecast below is only studied against Ireland wind generation.
- There may be other reasons, apart from voltage and thermal limits that lead to constraints, such as frequency, transient stability and adverse weather conditions. These are usually observed and dealt with close to real-time.
- Moyle Interconnector is limited to 80 MW export due to constraints on the Scotland side. National Grid Electricity Transmission plc performs daily studies to ascertain if this can be increased. Please note that the figures below in relation to interconnectors pertain to the Ireland/Northern Ireland side only.
- Should any of the study assumptions materially change during the week, due to a forced outage for example, we will endeavour to perform new studies and publish results on the next working day.

Study Assumptions

Generator and Transmission Outages

Generator and transmission plant outages as per published here:

[All-Island Generator Outages](#) – Under REMIT Publications

[Ireland Transmission Outages](#)

[Northern Ireland Transmission Outages](#)

Demand

All studies are performed at Weekday Peak System Demand unless otherwise stated

Jurisdiction	Weekday Peak System Demand (MW)	Weekend Peak System Demand (MW)
Ireland	4300	3600
Northern Ireland	1250	1100

Initial Interconnector and Tie Line Flows

	Flow (MW)
EWIC	At zero wind 250 MW Import (GB to IE) At 2000 MW wind 200 MW Export (IE to GB)
Moyle	N/A
North–South Tie Line Flow	0 MW Northern Ireland to Ireland / Ireland to Northern Ireland

Constraints

The forecast constraints below are at Weekday Peak System Demand.

South Generation Constraints Forecast (TCG Type: MW; Limit Type B) as per Operational Constraints Update

Ireland Wind Generation (MW)	Minimum South Generation (MW)	Maximum South Generation (MW)
0	200	1400
1000	200	1250
2000	300	1200

Cork Generation Constraints Forecast (TCG Type: MW; Limit Type B) as per Operational Constraints Update

Ireland Wind Generation (MW)	Minimum Cork Generation (MW)	Maximum Cork Generation (MW)
0	200	900
1000	0	900
2000	200	900

Inter-Area Flow (North-South Tie Line Flow) Constraints Forecast

Ireland Wind Generation (MW)	Maximum Northern Ireland to Ireland flow (MW)	Maximum Ireland to Northern Ireland flow (MW)
0	450 400 (Wed)	250
1000	450 300 (Wed)	250
2000	450 300 (Wed)	250

Interconnectors

Ireland Wind Generation (MW)	Maximum EWIC Import (MW)*	Maximum EWIC Export (MW)*	Maximum Moyle Import (MW)*	Maximum Moyle Export (MW)*
0	500	530	442	400
1000	500	530	442	400
2000	500	530	442	400

* Values pertain to the Ireland/Northern Ireland side of the interconnectors only

Coolkeeragh C30 Running

Northern Ireland Wind Generation (MW)	Northern Ireland Demand (MW) above which C30 must be running with GT8 off	Northern Ireland Demand (MW) above which C30 must be running with GT8 operating as a synchronous compensator	Northern Ireland Demand (MW) above which C30 must be running with GT8 operating as a generator
0	1550	1608	Not required
450	Not required	Not required	Not required
900	Not required	Not required	Not required

Other Constraints/Notes/Risks

Should market participants identify operational risks related to COVID-19 they should inform the TSO as soon as possible via their normal point of contact. Should this instigate a significant change to scheduling and dispatch the TSOs will update this weekly constraints document to reflect this in a revised publication as soon as possible.

Jurisdiction	Constraint/Note	Reason
Ireland / Northern Ireland	Transmission ratings will change from Summer to Autumn ratings from 30 th September.	Seasonal.
Ireland / Northern Ireland	EirGrid and SONI will, subject to system conditions, provide additional notice of intended unit synchronisation and desynchronisation decisions to facility operators in order to accommodate their amended operational practices.	COVID-19 has resulted in restrictions in working arrangements at some generation facilities.
Ireland / Northern Ireland	Update to System Wide Transmission Constraint Group: Operational Limit for Rate of Change of Frequency (S_RoCoF) Limit Type: X:<= Limit: 1 Hz/s	Implementation of the next phase of trialling an increased system limit for the Rate of Change of Frequency (RoCoF). System conditions permitting, the RoCoF limit will be 1.0 Hz/s.
Ireland / Northern Ireland	New Ramping Margin Constraints ACTIVE from Tuesday 8 th September: <ul style="list-style-type: none"> Ramping Margin 1 (RM1) Ramping Margin 3 (RM3) Ramping Margin 8 (RM8) 	Maintains a level of dispatchable generation and demand to mitigate renewable forecast error. Please refer to the published information note for more details.

<p>Ireland</p>	<p>Huntstown unit (HNC) is unable to export from 21st September until 12th October.</p>	<p>Transmission outage.</p>
<p>Ireland / Northern Ireland</p>	<p>Update to Source of Non or Partially Regulating Reserve from 15th September:</p> <p>Ireland: 45 MW of Response from DSU (increase from 23 MW).</p> <p>Northern Ireland: 5 MW of Response from DSU (increase from 2 MW).</p>	<p>Follows a review of DSU response capability.</p>
<p>Northern Ireland</p>	<p>Transmission Constraint Groups ACTIVE from Thursday 1st October:</p> <p>TCG: S_NBMIN_MINNI1 TCG Type: NB Limit Type: NB:>= Limit: 2 Resources: C30, K1, K2</p> <p>TCG: S_NBMIN_MINNI2 TCG Type: NB Limit Type: NB:>= Limit: 3 Resources: C30, K1, K2, B10, B31, B32</p> <p>Transmission Constraint Groups INACTIVE from Thursday 1st October:</p> <p>S_NBMIN_MINNIU S_NBMIN_MINNI3</p>	<p>Required for dynamic stability during planned outage of B31 with B22 available in open-cycle mode only.</p>