BP_SO 13.3 Real Time NTC Reduction

Business Process

18/12/2024 - Version 4

EirGrid GROUP

The Oval, 160 Shelbourne Road, Ballsbridge, Dublin D04 FW28
Telephone: +353 1 677 1700 | www.eirgrid.com

EirGrid and SONI support the provision of information to the marketplace by publishing operational data, processes, methodologies and reports. This information is key to a well-functioning market and as a transparency measure, assisting understanding of our decision making processes. It is recognised that the detailed elements of our operational processes need to remain agile in the context of service priorities and technical considerations of the new market. Consequently, as operational documents these are subject to change. EirGrid and SONI therefore make no warranties or representations of any kind with respect of this document, including, without limitation, its quality, accuracy and completeness, neither do EirGrid or SONI accept liability for any loss or damage arising from the use of this document or any reliance on the information it contains.

The document may also contain information from external sites over which EirGrid and SONI have no control and for which we assume no responsibility.

Contents

1. Assumptions 4

2. Process references 5

2.1. Related rules references 5

2.2. Related documents 6

3. Process context 6

3.1. Business model relationship 6

3.2. Background and scope 6

4. Process objective 7

5. Roles and responsibilities 8

5.1. EirGrid/ SONI 8

6. Process description 9

6.1. Process map 9

6.2. Process steps 10

7. Appendices 12

7.1. Process flowchart key 12

1. Assumptions

Assumptions made during the design of this process include:

- This is an all-island process, meaning the same process will be used across both jurisdictions on the island, Ireland and Northern Ireland. It will be executable from both Dublin and Belfast;
- Pending agreed changes to the SEM-GB capacity calculation arrangements, the proposed solution as outlined in the 'Interim Coordinated Capacity Calculation Arrangements on the SEM-GB Border' is the approved approach to managing coordinated capacity calculation; and
- The existing Interconnector Operating Protocol for any of the SEM-GB interconnectors and the EirGrid/SONI Planned Outage Coordination process will be used to set the level of NTC of the aforementioned interconnectors.

2. Process references

2.1. Related rules references

The following table provides references to the documents that govern the design of this business process.

Document Title	Relevant Section	Description
Commission Regulation (EU) 2015/1222 of 24 July 2015 on establishing a guideline on capacity allocation and congestion management (CACM)	All	The Regulation establishing a guideline on Capacity Allocation and Congestion Management (CACM) entered into force on 15 August 2015. The provisions of CACM govern the establishment of cross-border EU electricity markets in the day-ahead and intraday timeframes, as well as methods for the calculation of interconnection capacity.
Commission Implementing Regulation (EU) 2021/280 of 22 February 2021 amending Regulations (EU) 2015/1222	All	Amends several existing regulations to align them with Regulation (EU) 2019/943. The alignment aims to enhance market integration, non-discrimination, effective competition, and overall functioning of the electricity market within the European Union.
Commission Regulation (EU) 2016/1719 of 26 September 2016 on establishing a guideline on forward capacity allocation (FCA)	All	The Regulation establishing a guideline on forward capacity allocation (FCA) entered into force on 17 October 2016. The provisions of FCA establish a framework for the calculation and allocation of interconnection capacity, and for cross-border trading, in forward markets (i.e. timeframes longer than day-ahead).
Day-Ahead Interconnector Net Transfer Capacity Procedure – June 2024	Outlines methodology	This document describes the process by which EirGrid and SONI calculate and apply day-ahead adequacy-based Net Transfer Capacity (NTC) limits on interconnectors between the islands of Ireland and Great Britain.
Interim Cross Zonal TSO Arrangements for GB-ISEM go-live - 2017	All	The cross zonal TSO arrangements refer to the process and methodology for TSOs to determine the interconnector capacity available to be allocated by the day-ahead and intra-day market coupling process. While the Regulatory Authorities (RAs) in February 2023 that the ICZA would apply to Greenlink and future SEM-GB interconnectors – notwithstanding the possibility of future policy developments that may supersede the ICZA – this excluded the provisions relating to compensation arrangements in the case of a reduction of NTC.
SEM Committee Decision Paper dated 28 March 2024 (ref: SEM-24-025) entitled "Compensation Arrangements for Net Transfer Capacity Reductions")	All	The purpose of this decision is to provide clarity to all stakeholders on the forward-looking compensation arrangements in the SEM for Moyle, EWIC, Greenlink and any future SEM-GB interconnectors following the reduction of NTC.

Interconnector Operating Protocol	All	The protocol operates as a common point of reference for the interconnector owner, EirGrid/SONI and NESO in relation to the operation of each SEM-GB Interconnector, covering the following areas: outage planning, day ahead user data and transfer programme agreement, real time operation and post event review and general management.

2.2. Related documents

The following table provides a list of documents that are related to this business process.

Document Title	Relationship	Description
N/A	N/A	N/A

3. Process context

3.1. Business model relationship

The 'Real Time NTC Reduction' process sits within 'Cross Zonal Capacity' process group within the Systems Operator processes. This process group is required to meet EirGrid/SONI's obligations under the network codes governing all cross-border electricity market transactions and system operations.

3.2. Background and scope

Background

The following regulation outline specific requirements and obligations on TSOs in relation to Europe's cross-border electricity networks, these include:

1. Commission Regulation (EU) 2015/1222 of 24 July 2015 on establishing a guideline on capacity allocation and congestion management (CACM) which sets requirements to:
    - Develop a common capacity calculation methodology,
    - The capacity calculation methodology will include details of any allocation constraints,
    - Establish a Coordinated Capacity Calculator,
    - Establish a common Coordinated Redispatching and Countertrading Methodology.
2. Commission Regulation (EU) 2016/1719 of 26 September 2016 on establishing a guideline on forward capacity allocation (FCA) which sets requirements to:
    - Develop a common capacity calculation methodology for long-term allocations,
    - Use the Coordinated Capacity Calculator established under CACM,
    - Develop a methodology for splitting long-term cross-zonal capacity.
3. Commission Implementing Regulation (EU) 2021/280 outlines several key amendments to existing regulations to align them with Regulation (EU) 2019/943 on the internal market for electricity. Here are the main points:
    - Harmonization of Rules, ensuring a more integrated and efficient electricity market.
    - Enhanced Role of ACER.
    - Market Integration and Non-Discrimination, ensuring that the TCMs contribute to market integration, non-discrimination, effective competition, and the proper functioning of the electricity market.

These amendments are designed to support the ongoing development of a unified and competitive electricity market in the EU.

The network codes envisage that the Cross-Zonal Capacity calculation will be carried out by the appointed Coordinated Capacity Calculator for each Capacity Calculation Region, in accordance with the relevant Capacity Calculation Methodology.

Scope

The scope of this process, Real Time NTC Reduction, covers how changes to the NTC calculated for the year ahead as part of the Interim Coordinated Capacity Calculation process are managed and updated for firm market periods. Changes after sixty minutes before IDA1 Gate Closure (16:30 local time D-1) for the first twelve hours of trading day D and after sixty minutes before IDA2 Gate Closure (07:00 local time D) for the last twelve hours of trading day D will be implemented through this process, i.e. for periods that are already market firm. Prior to the timelines above, where market periods are non-firm, changes to NTC are managed by Back Offices under the Long-Term NTC Change process.

In real time, if an NTC reduction is identified by any TSO or Interconnector Owner (ICO) or is required after an interconnector trip or partial trip (one of the poles on Moyle Interconnector), NCC/CHCC must identify the reduction required. NCC/CHCC will be responsible for entering the new 'Minute NTC' values into the Interconnector Management Platform (ICMP) which will generate a new Interconnector Reference Programme (ICRP).

Upon entry of a Minute NTC change, the system shall generate a new ICRP based on the new information. In doing so, the ICRP curve shall not exceed the outage-reflected NTC value for the duration of the outage. If the ICRP curve immediately at the start of the outage exceeds the unplanned outage (Minute NTC) value, the system shall instantaneously ramp the ICRP curve to the value of the unplanned outage. Otherwise, the ICRP generated should adhere to the Interconnector Ramp Rate, where applicable.

The Minute NTC update should also trigger an update of ICO declared NTC (this refers to the NTC value declared by the Interconnector Owners) in the form of a Force Majeure Interconnector Outage.

It is possible for a user to manually update the ICO NTC at a later stage which will overwrite the update caused by the Minute NTC entry.

Where the Minute NTC update ends in the start/middle of a delivery period, the ICO interval NTC value should be calculated pro-rata, e.g. For Period 01:00 – 01:30, the original ICO NTC equals 500 MW. A Minute NTC update to 0 MW is entered starting at 01:24. This will cause the NTC for the period to be updated to (6*0 + 24 * 500)/30 = 400 MW.

4. Process objective

The objective of this Business Process is to meet the following obligations under the EirGrid and SONI Grid Code, namely:

- Commission Regulation (EU) 2015/1222 of 24 July 2015 on establishing a guideline on capacity allocation and congestion management (CACM);
- Commission Regulation (EU) 2016/1719 of 26 September 2016 on establishing a guideline on forward capacity allocation (FCA);
- Commission Implementing Regulation (EU) 2021/280 outlines several key amendments to existing regulations to align them with Regulation (EU) 2019/943 on the internal market for electricity and
- Ensure that NTC values are updated in Real Time, i.e. if reductions are required.

5. Roles and responsibilities

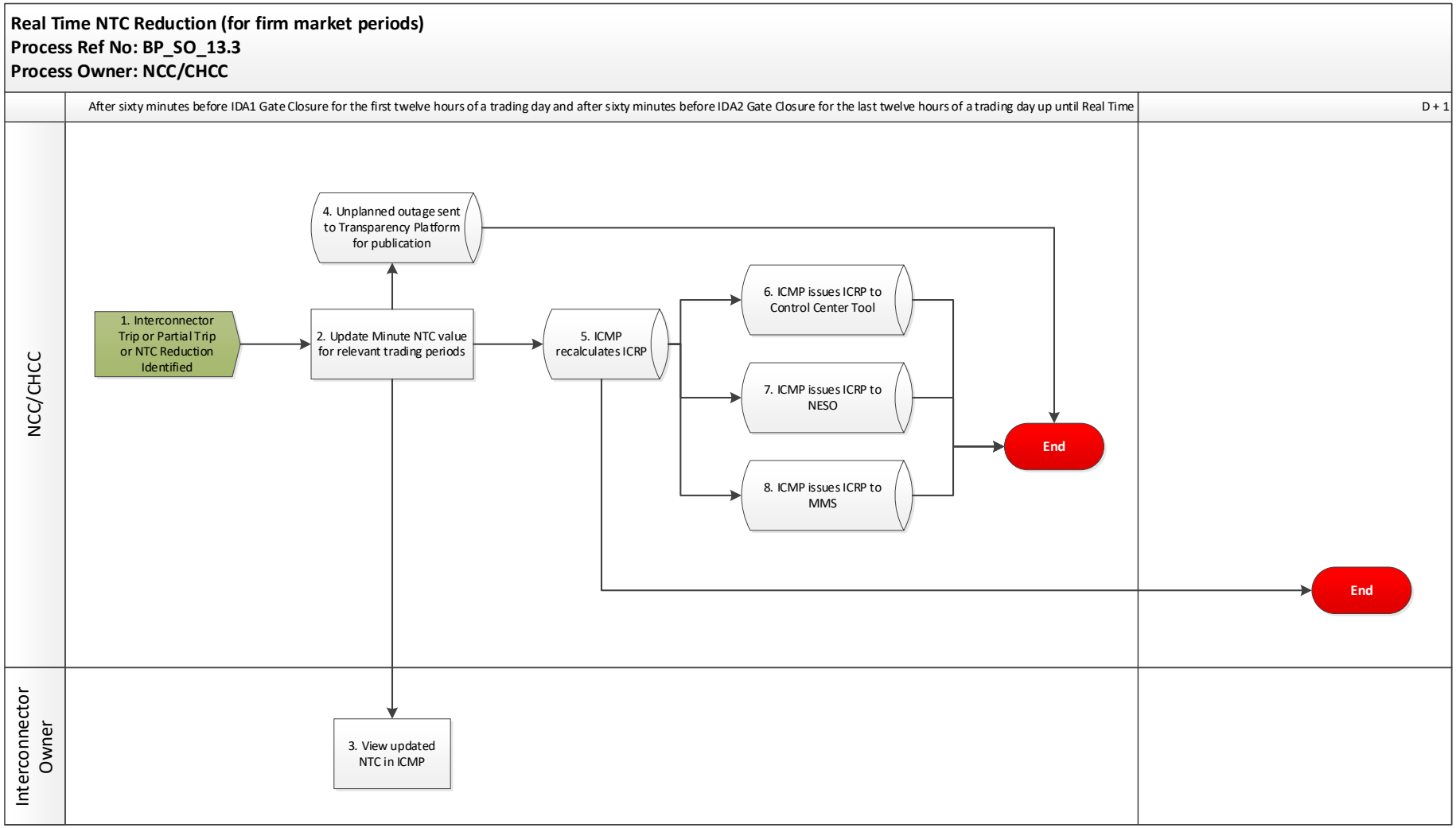
5.1. EirGrid/ SONI

The following table provides a summary of the obligations of EirGrid & SONI's in relation to this process.

Function	Responsibility in relation to process	Timeline Associated
NCC/CHCC	• Identify if NTC reductions required • Enter recalculated NTC values into ICMP if required	As required

6. Process description

6.1. Process map



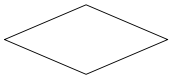
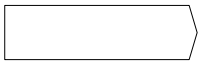
6.2. Process steps

#	Step	Step Description	Responsible Role	Outputs	Indicative Timing/ Frequency	System
1	Interconnector Trip or Partial Trip or NTC Reduction Identified	This process will be triggered by an interconnector trip or partial trip (one of the poles on Moyle Interconnector) or NCC/CHCC may identify the need for NTC reductions through the course of dispatching the system. The Interconnector Owner or NESO may also trigger this process by contacting the Control Centre and informing them a reduction is required.	NCC/CHCC	N/A	As required	N/A
2	Update Minute NTC value for relevant trading periods	If an NTC reduction has been identified the NCC/CHCC user must then determine the maximum NTC for each trading period and update the Minute NTC.	NCC/CHCC	N/A	As required	ICMP
3	View updated NTC in ICMP	The Interconnector Owner can view the updated NTC in ICMP	Interconnector Owner	N/A	As required	ICMP
4	Unplanned outage sent to Transparency Platform for publication	Unplanned outage sent to Transparency Platform for publication	System Step	N/A	As required	GDX

#	Step	Step Description	Responsible Role	Outputs	Indicative Timing/ Frequency	System
5	ICMP recalculates ICRP	Upon a Minute NTC value being updated the ICMP recalculates Interconnector Reference Programme (ICRP) based on the new information. In doing so, the ICRP curve shall not exceed the outage-reflected NTC value for the duration of the outage. If the ICRP curve immediately at the start of the outage exceeds the unplanned outage (Minute NTC) value, the system shall instantaneously ramp the ICRP curve to the value of the unplanned outage. Otherwise, the ICRP generated should adhere to the Interconnector Ramp Rate, where applicable. It is possible for a user to manually update the ICO NTC at a later stage which will overwrite the update caused by the Minute NTC entry. Where the Minute NTC update ends in the start/middle of a period, the ICO interval NTC value should be calculated pro-rata.	System Step	New Interconnector Reference Programme (ICRP)	As required	ICMP
6	ICMP issues ICRP to Control Center Tool	ICMP issues new ICRP to Control Center Tool.	System Step	N/A	As required	ICMP
7	ICMP issues ICRP to NESO	ICMP issues new ICRP to NESO.	System Step	N/A	As required	ICMP
8	ICMP issues ICRP to MMS	ICMP issues new ICRP to MMS.	System Step	N/A	As required	ICMP

7. Appendices

7.1. Process flowchart key

FLOWCHART KEY	
	Trigger
	Process step
	Process decision / question
	Reference to another process
	Another business process to be implemented following current step (current step is a trigger for another process)
	Process end
	System