

# Business Process

## BP\_SO\_13.2 Long-Term NTC Change

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## 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;
- This process will be required until the Coreso Regional Security Coordinator (RSC) solution is in place. Coreso is the regional transmission system security co-ordinator for much of Western Europe. The objective of Coreso is to assist TSOs to maintain optimal security of supply in Europe by providing regional coordination services. One of the key Coreso tasks would be to perform the calculation of cross-zonal capacity for the Ireland - United Kingdom (IU) coordinated capacity region;
- The proposed solution as outlined in the 'Interim Coordinated Capacity Calculation Arrangements on SEM-GB Border' is the approved approach for managing coordinated capacity calculation in the interim; and
- The existing EirGrid Interconnector DAC (EIDAC), Moyle Interconnector Limited (MIL), National Grid Electricity Transmission plc (NGET), EirGrid/SONI Planned Outage Coordination process (as per the Interconnector Operation Protocol (IOP)) will as far as possible be used to set the level of NTC (separately for both directions of transfer across EWIC and Moyle Interconnector).

## 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 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).
SEM-GB Joint Implementation Group JIG023 – Interim Cross Zonal TSO Arrangements for GB-ISEM go-live	All	This document is a common proposal developed by all Transmission System Operators (hereafter referred to as "TSOs") within the IU <sup>1</sup> Capacity Calculation Region <sup>2</sup> regarding the requirement to develop interim TSO cross zonal arrangements for ISEM go-live. This proposal is for the IU Capacity Calculation Region and has been developed as

<sup>1</sup> The IU Capacity Calculation Region refers to the bidding zone border SEM-GB as described in ENTSO-E's all TSOs draft proposal for Capacity Calculation Regions in accordance with Article 15 of the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a Guideline on Capacity Allocation and Congestion Management.

<sup>2</sup> Decision of ACER No 06/2016 of 17 November 2016 on the Electricity System Operator's proposal for the determination of capacity calculation regions.

		an all TSO proposal for submission to the SEM-GB Joint Implementation Group <sup>3</sup>
Principles for determining Transfer Capacity on the East West Interconnector	Outlines methodology	Paper outlines the approach and methodology adopted by EirGrid for determining Transfer Capacity on EWIC. A similar document will be developed for Moyle Interconnector
Moyle Interconnector Operating Protocol	Appendix I & J	The Moyle Interconnector Operating Protocol is a tripartite agreement between MIL, SONI and NGET. The purpose of the document is to provide a common point of reference for MIL, SONI and NGET staff on issues associated with the operation of Moyle Interconnector.
EWIC Interconnector Operating Protocol	Appendix I & J	The EWIC Interconnector Operating Protocol is a tripartite agreement between EIL, EirGrid and NGET. The purpose of the document is to provide a common point of reference for EIDAC, EirGrid and NGET staff on issues associated with the operation of EWIC.

## 2.2 RELATED DOCUMENTS

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

Document Title	Relationship	Description
Balancing Market Principles Statement	Information	Public guide to the scheduling and dispatch process which describes the cross zonal arrangements.
Cross Zonal User Guide	System guide	A step-by-step system guide detailing procedures required in the Interconnector Manager Platform (ICMP).

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<sup>3</sup> The GB/ISEM Joint Implementation Group (JIG) is a meeting between the Northern Irish, the Irish and GB Regulatory Authorities (and ministries on an ad-hoc basis), as well as the TSOs (EirGrid plc, SONI Limited, EirGrid Interconnector DAC, Moyle Interconnector Limited and National Grid Electricity Transmission plc [NGET]). The Irish and GB NEMOs also attend: SEMOpX, APX Commodities Limited and NordPool Spot. These meetings discuss ISEM and European Electricity Network Code/Guideline implementation

## 3 PROCESS CONTEXT

### 3.1 BUSINESS MODEL RELATIONSHIP

The 'Long-Term Net Transfer Capacity Change' process sits within 'Interim 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 in an interim capacity until the enduring solution is in place, until that point interim measures will persist.

### 3.2 BACKGROUND AND SCOPE

#### Background

There are two key network codes which 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.

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.

This is known as Enduring Capacity Calculation methodology and is being developed for the SEM-GB market by the TSO Channel-IU (BritNed Development Limited, National Grid Electricity Transmission plc, National Grid Interconnectors Limited, Réseau de Transport d'Electricite, TENNET, Elia, NEMOLink, EirGrid plc, Moyle Interconnector Limited, SONI Limited, and EirGrid Interconnector DAC) group.

In the enduring solution Coreso, the Regional Security Coordinator (RSC) for the Ireland-United Kingdom (IU) Region, will act as the Coordinated Capacity Calculator performing the calculation of cross-zonal capacity for the IU coordinated capacity region. However, the enduring Coreso solution will not be in place to meet CACM and FCA compliance at the time of I-SEM go-live and as a result an interim solution has been developed for the IU region to support the achievement of I-SEM go-live objectives to be compliant with the CACM Regulation (EU) 2015/1222 and/or FCA Regulation (EU) 2016/1719.

The Interim Coordinated Capacity Calculation Arrangements will go live in line with I-SEM timelines and will remain in place until replaced by an enduring solution which will be compliant with all applicable European Network Codes (ENCs) and seek to achieve the objectives set out above to the extent possible.

#### Scope

The scope of this process, Long-Term Net Transfer Capacity Change, 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 any non-firm market periods. Changes via this process will be accepted up to sixty minutes

before IDA1 Gate Closure (16:30 local time D-1 at time of writing) for the first twelve hours of trading day D and up to sixty minutes before IDA2 Gate Closure (07:00 local time D at time of writing) for the last twelve hours of trading day D. This allows thirty minutes to implement the process ahead of the ATC Gate Closures for IDA1 and IDA2 respectively. After these timeframes, changes to NTC are a Real Time process, and updates are made by the Control Centre.

Prior to Real Time, Near Time will perform studies on an ongoing basis which may identify the need for NTC values set previously for the year need to be changed. Similarly, the Interconnector Owners and NGET may identify reasons for NTC changes (in particular, NGET may be able to provide extra available capacity on their transmission network for Moyle Interconnector exports to their system through a daily D-2 or D-1 capacity calculation); if they do they will send their updated values to EirGrid/SONI. EirGrid/SONI will then update the values in the Interconnector Management Platform (ICMP) which will then recalculate the NTC values and send the updated values to EDIL and MMS and externally to NGET's systems and EPEX. ICMP will also automatically generate an email and send it to JAO (Joint Allocation Office).

As part of inputting an NTC reduction, a reason code must be provided as this information will be required by JAO in the processing of curtailment compensation file which will be issued on a monthly basis.

#### 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); and
- The objective of this process is also to ensure there is a means by which NTC values can be updated for any non-firm market periods.

5.1.1 EIRGRID/SONI

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

Function	Responsibility in relation to process	Timeline Associated
Near Time (Process Owner)	<ul style="list-style-type: none"> <li>Perform NTC analysis</li> <li>Identify if NTC changes are required</li> </ul>	As required up to sixty minutes before IDA1 Gate Closure for the first twelve hours of a trading day and up to sixty minutes before IDA2 Gate Closure for the last twelve hours of a trading day.
Trading	<ul style="list-style-type: none"> <li>Input updated NTC values into ICMP and select reason code if reduction</li> </ul>	As required.

5.1.2 INTERCONNECTOR OWNERS

The following table provides a summary of the obligations of the Interconnector Owners in relation to this process.

Party	Responsibility in relation to process	Timeline Associated
Interconnector Owners	<ul style="list-style-type: none"> <li>Perform NTC analysis</li> <li>Identify if NTC changes are required</li> <li>Send NTC change updates and reason to EirGrid/SONI</li> </ul>	As required up to sixty minutes before IDA1 Gate Closure for the first twelve hours of a trading day and up to sixty minutes before IDA2 Gate Closure for the last twelve hours of a trading day.

5.1.1 NATIONAL GRID ELECTRICITY TRANSMISSION PLC

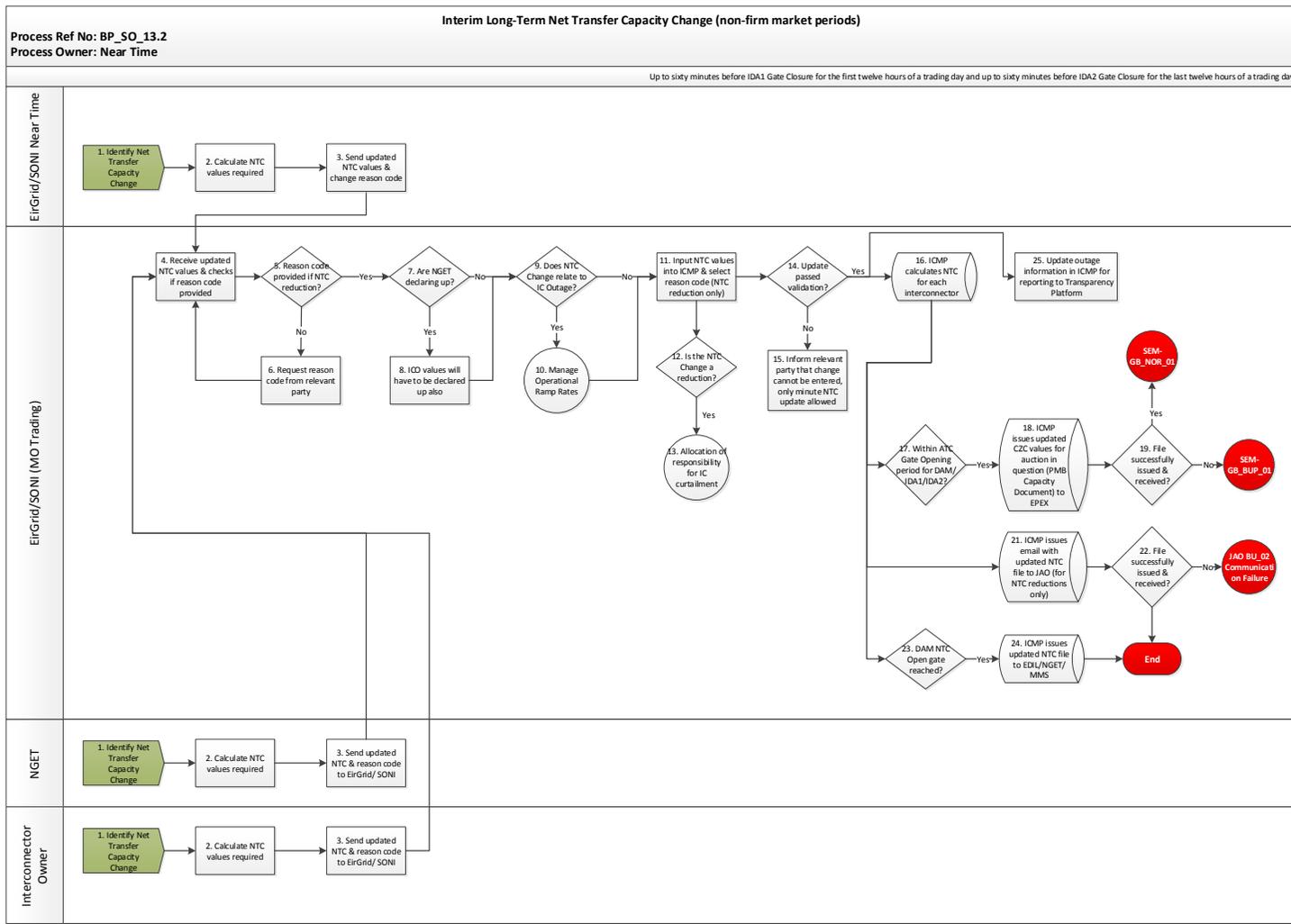
The following table provides a summary of the obligations of National Grid Electricity Transmission plc's (NGET) in relation to this process.

Party	Responsibility in relation to process	Timeline Associated
NGET	<ul style="list-style-type: none"> <li>Perform NTC analysis</li> <li>Identify if NTC changes are required or increases can be accommodated</li> <li>Send NTC change updates and reason to EirGrid/SONI</li> </ul>	As required up to sixty minutes before IDA1 Gate Closure for the first twelve hours of a trading day and up to sixty minutes before IDA2 Gate Closure for the last twelve hours of a trading day.

# 6 PROCESS DESCRIPTION

## 6.1 LEVEL 3 PROCESS

### 6.1.1 PROCESS MAP



6.1.2 PROCESS STEPS

#	Step	Step Description	Responsible Role	Outputs	Indicative Timing/ Frequency	System
1	Identify Net Transfer Capacity Change	Near Time, the Interconnector Owners or NGET may identify that a Net Transfer Capacity change or increase is required.	Near Time/ Interconnector Owners/ NGET	N/A	As required up to sixty minutes before IDA1 Gate Closure for the first twelve hours of a trading day and up to sixty minutes before IDA2 Gate Closure for the last twelve hours of a trading day.	N/A
2	Calculate NTC values required	Calculate NTC values required based on analysis.	Near Time/ Interconnector Owners/ NGET	Updated NTC values	As required up to sixty minutes before IDA1 Gate Closure for the first twelve hours of a trading day and up to sixty minutes before IDA2 Gate Closure for the last twelve hours of a trading day.	N/A
3	Send updated NTC values & change reason code	Once an NTC value has been calculated it needs to be sent to the EirGrid/SONI Market Operations Trading team to enter into ICMP with the associated reason code, if NTC reduction. Send updated	Near Time/ Interconnector Owners/ NGET	N/A	As required up to sixty minutes before IDA1 Gate Closure for the first twelve hours of a	N/A

#	Step	Step Description	Responsible Role	Outputs	Indicative Timing/Frequency	System
		NTC values & change reason code, if NTC reduction. A reason code must be provided for every NTC reduction as this information will be required by JAO curtailment compensation calculations.			trading day and up to sixty minutes before IDA2 Gate Closure for the last twelve hours of a trading day.	
4	Receive updated NTC values & checks if change reason code provided	EirGrid/SONI ICMP User will receive updated NTC values and must check to see if change reason code has been provided (for reduction only).	EirGrid/SONI Market Operations Trading	N/A	As required up to sixty minutes before IDA1 Gate Closure for the first twelve hours of a trading day and up to sixty minutes before IDA2 Gate Closure for the last twelve hours of a trading day.	N/A
5	Reason code provided if NTC reduction?	Reason code provided if NTC reduction? If the reason code has not been provided and NTC reduction, go to step 6. If the reason code has been provided or NTC increase, go to step 7.	EirGrid/SONI Market Operations Trading	N/A		N/A
6	Request reason code from relevant party	If the associated reason code has not been provided, they must request reason code from relevant party before proceed with the process.	EirGrid/SONI Market Operations Trading	N/A		N/A
7	Are NGET declaring up?	Are NGET declaring up?	EirGrid/SONI Market Operations	N/A		N/A

#	Step	Step Description	Responsible Role	Outputs	Indicative Timing/ Frequency	System
		If yes go to step 8. If no go to step 9.	Trading			
8	ICO values will have to be declared up also	If NGET are declaring the NTC values for up, the ICO values will also have to be declared up in ICMP.	EirGrid/SONI Market Operations Trading	N/A		N/A
9	Does NTC Change relate to IC Outage?	Does NTC Change relate to IC Outage? If yes go to step 10. If no go to step 11.	EirGrid/SONI Market Operations Trading	N/A		N/A
10	Manage Operational Ramp Rates	If the NTC change is required due to an Interconnector Outage, the 'Manage Operational Ramp Rates' process must also be followed as the ramp rates will need to be amended accordingly. This information is also required by EPEX.	EirGrid/SONI Market Operations Trading	N/A		N/A
11	Input NTC values into ICMP & select reason code	Once all information is available the User can input NTC values into ICMP & select the reason code (NTC reduction only) provided by the party requesting the change.	EirGrid/SONI Market Operations Trading	N/A		ICMP
12	Is the NTC Change a reduction?	If the NTC change is a reduction then go to step 13.	EirGrid/SONI Market Operations Trading	N/A		N/A
13	Allocation of responsibility for IC curtailment	Allocation of responsibility for IC curtailment.	ICO/Near Time	N/A		N/A
14	Update passed validation?	Once an update is input into the system,	EirGrid/SONI	N/A		N/A

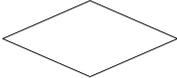
#	Step	Step Description	Responsible Role	Outputs	Indicative Timing/ Frequency	System
		<p>ICMP will perform a validation to ensure it is feasible.</p> <p>If the update is accepted, process will continue to step 16.</p> <p>If the update is rejected, go to step 15.</p>	Market Operations Trading			
15	Inform relevant party that change cannot be entered, only minute NTC update allowed	If the update is rejected, the relevant party should be informed.	EirGrid/SONI Market Operations Trading	N/A		N/A
16	ICMP calculates NTC for each interconnector	ICMP will then automatically recalculate NTC for each interconnector.	System step	Update NTC values in ICMP		ICMP
17	Within ATC Gate Opening period for DAM/IDA1/IDA2?	<p>Within ATC Gate Opening period for DAM/ IDA1/ IDA2?</p> <p>If yes go to step 18.</p> <p>If no process ends.</p>	System step	N/A		ICMP
18	ICMP issues updated CZC values for auction in question (PMB Capacity Document) to EPEX	<p>ICMP issues updated CZC values for auction in question (PMB Capacity Document) to EPEX.</p> <p>ICMP will issue the PMB Capacity Document, which includes the ATC values, to EPEX during the ATC Gate Opening periods for the Day Ahead and Intraday Auctions. The gate opening and closing times for each auction will be configured in the system and the system will automatically send the file during this period or resend it if the ATC values are</p>	System step	PMB Capacity Document (including NTC values) sent to EPEX		ICMP

#	Step	Step Description	Responsible Role	Outputs	Indicative Timing/ Frequency	System
		updated during this period. If the ATC values are updated prior to the gates opening the file will not be issued until that time is reached.				
19	File successfully issued & received?	<p>File successfully issued, received by EPEX and EPEX satisfied with file contents?</p> <p>If yes, the normal SEM-GB process for sending Cross Zonal Capacities is followed.</p> <p>If no, the SEM-GB Back-up procedure for sending Cross Zonal Capacities must be followed.</p>	System step	N/A		ICMP
20	ICMP issues email with updated NTC file to JAO (for NTC reductions only)	<p>If an NTC reduction is entered and saved before the DAM ATC gate closure has been reached, an e-mail will be automatically sent to JAO containing an attachment file providing the DAM ATC gate closure has not passed.</p> <p>The attachment file will contain all NTC updates and reason codes contained in the range.</p> <p>Note, NTC reductions will be only those periods for which an update is entered and the Reason Code field is populated.</p>	System step	NTC File issued		ICMP
21	File successfully issued & received?	A response e-mail containing an XML file should be received after every successful transmission from JAO; user should	System step	N/A		ICMP

#	Step	Step Description	Responsible Role	Outputs	Indicative Timing/ Frequency	System
		ensure this has been received. If the acknowledgement email has not been received user should initiate the JAO Communication Failure process to ensure information is sent to JAO.				
22	DAM NTC Open gate reached?	DAM NTC Open gate reached? If yes go to step 24. If no process ends.	System step	N/A		ICMP
23	ICMP issues updated NTC file to EDIL/NGET/MMS	If the DAM NTC Open gate opening time (as configured in ICMP) has been reached and a change entered, ICMP issues updated NTC file to EDIL/NGET/MMS.	System step	NTC files sent to EDIL/NGET/MMS		ICMP
24	Update outage information in ICMP for reporting to Transparency Platform	The interconnector outage information is updated in ICMP for reporting to Transparency Platform This is performed by GDX. It polls ICMP every 30 minutes to check if any new outages have been created. If it finds one, it sends it on to the EMFIP platform.	EirGrid/SONI Market Operations Trading	N/A	Every 30 minutes	ICMP, GDX

## 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 (automatic step)