Business Process

BP_SO_5.2 Interconnector Trips

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1 ASSUMPTIONS

Assumptions made during the design of this process include:

- This is an all-island business process, meaning the same process will be used across both jurisdictions on the island, Ireland and Northern Ireland. It can conducted by the relevant team in either Dublin or Belfast;
- The following business processes addresses all requirements, including roles, tools, and activities that will enable the TSO to achieve scheduling objectives; and
- All required systems, including MMS and ICMP are in place. They offer all required functionalities to support business needs.

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
Moyle Interconnector Operating Protocol	Chapter 7 Net Transfer Capacity Appendix A.22 NTC Change and A.23 Return to Service	The protocol operates as a common point of reference for MIL, SONI and NGET in relation to the operation of the Moyle 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.
EWIC Interconnector Operating Protocol	Chapter 7 Net Transfer Capacity Appendix J NTC Change and Return to Service	The protocol operates as a common point of reference for EIDAC, EirGrid and NGET in relation to the operation of the EWIC 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
Real Time NTC Reductions	Related process	Following an interconnector trip the TSO will update the Net Transfer Capacity of that interconnector in the systems.
Perform Long Term and Short Term Scheduling	Related process	Following an interconnector trip Real Time will have to perform additional long term and short term scheduling runs.

3 PROCESS CONTEXT

3.1 BUSINESS MODEL RELATIONSHIP

The Interconnector Trips process sits within the interconnector process group. This group covers the interactions between System Operator (Near Time and Real Time) and Interconnector Owners in relation to outage management, testing and following trips.

3.2 BACKGROUND AND SCOPE

In the event of an interconnector trip it is the responsibility of Control Centres to inform National Grid Electricity Transmission plc (NGET) within 15 minutes of the event in accordance with Grid Code. The Interconnector Operating Protocol provides guidance in relation to communications between the Control Centres following an interconnector event. An interconnector trip is a significant event and the immediate priority of Real Time is to ensure the system is secure and to redispatch as required to return the system to a secure state. Once the system has stabilised there are a number of activities in relation to scheduling and dispatch, notification of interconnector owners to establish return to service times and keeping NGET informed of these events.

4 PROCESS OBJECTIVE

The objective of this Business Process is to meet the following obligations under the Interconnector Operating Protocols, namely:

1) EWIC Interconnector Operating Protocol, Chapter 7 NTC Change and Return to Service
2) Moyle Interconnector Operating Protocol, Chapter 7 NTC Change and Return to Service

5 ROLES AND RESPONSIBILITIES

5.1.1 REAL TIME

The following table provides a summary of the obligations of Real Time relating to Interconnector Trips:

Function	Responsibility in relation to process	Timeline Associated
Real Time (Process Owner)	• Take require action once trip has occurred, ensuring redispatch to ensure safety of supply and reducing NTC	Immediately after trip
	• Inform NGET of trip	Within 15 minutes of trip
	• Liaise with relevant Interconnector owner during process	As soon as practicable
	• Produce Significant Incident Report, if required	Within 2 hours of trip

5.1.2 NATIONAL GRID ELECTRICITY TRANSMISSION PLC

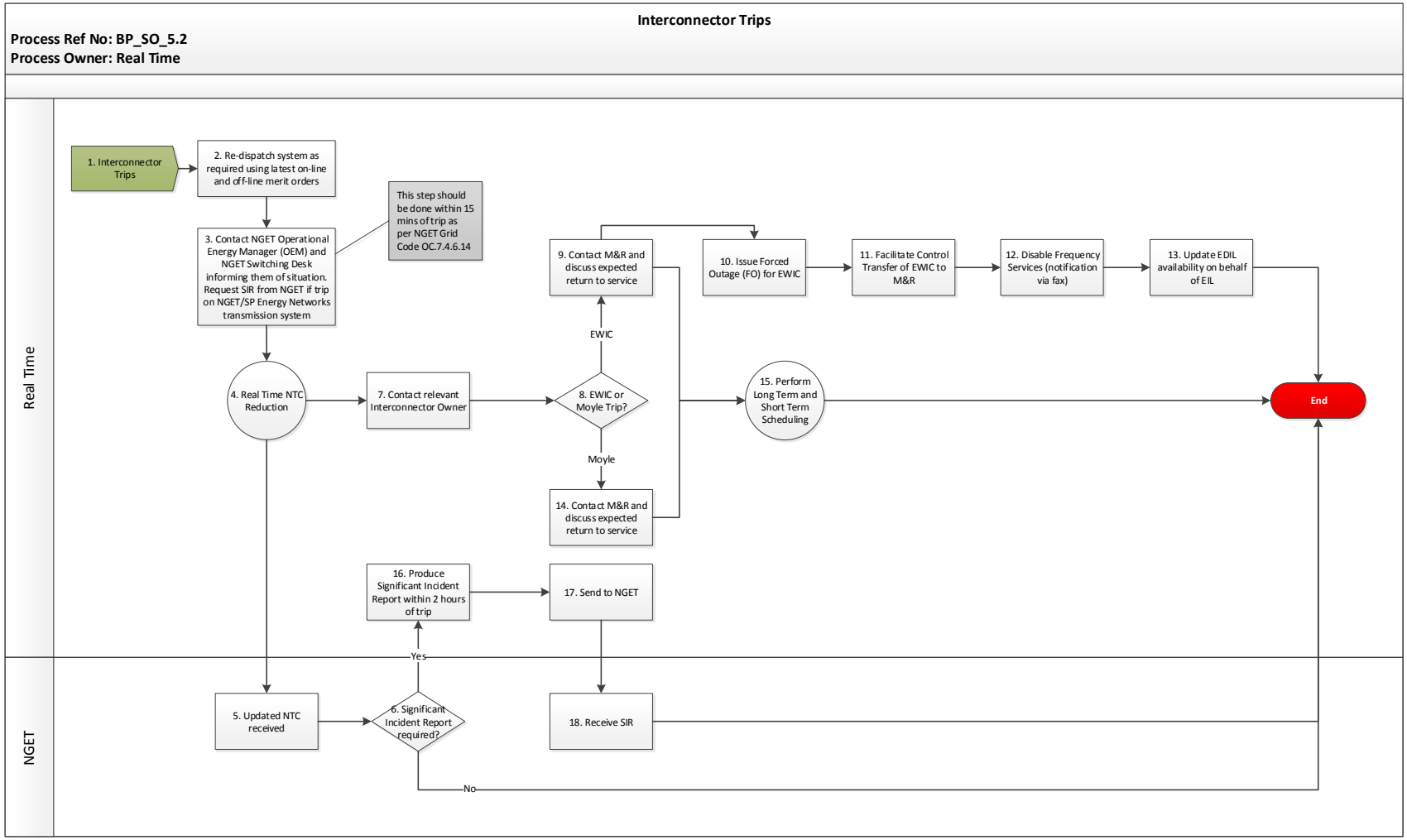
The following table provides a summary of the obligations of National Grid Electricity Transmission plc (NGET) relating to Interconnector Trips*:*

Function	**Responsibility in relation to process**	**Timeline Associated**
NGET	Assess if Significant Incident Report is required	As soon as practicable after being informed of trip

6 PROCESS DESCRIPTION

6.1 LEVEL 3 PROCESS

6.1.1 PROCESS MAP



6.1.2 PROCESS STEPS

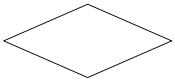
#	Step	Step Description	Responsible Role	Outputs	Indicative Timing/ Frequency	System
1	Interconnector Trips	Trigger for this process will be an Interconnector tripping.	Real Time	N/A	N/A	N/A
2	Re-dispatch system as required using latest on-line and off-line merit orders	Control Centre will immediately re dispatch system as required using latest on-line and off-line merit orders.	Real Time	N/A	Immediately after trip has occurred	MMS - SCUC/SCED
3	Contact NGET Operational Energy Manager (OEM) and NGET Switching Desk informing them of situation. Request SIR from NGET if trip on NGET/SP Energy Networks transmission system	Once redispatch is complete, contact NGET Operational Energy Manager (OEM) and NGET Switching Desk informing them of situation. As per NGET Grid Code OC.7.4.6.14, this step This step should be done within 15 mins of trip. Request Significant Incident Report (SIR) from NGET if trip on NGET/SP Energy Networks transmission system.	Real Time	N/A	Upon completion of redispatch	Phone
4	Real Time NTC Reduction	The 'Real Time NTC Reduction' process will then be triggered to ensure the NTC minute values are amended accordingly and so that a new Interconnector Reference Programme is generated within the Interconnector Management Platform (ICMP).	Real Time	NTC updated	Upon completion of redispatch	ICMP
5	Updated NTC received	Updated NTC received.	NGET	N/A	N/A	ICMP
6	Significant Incident Report required?	Significant Incident Report required? If yes, go to step 16.	NGET	N/A	N/A	N/A

#	Step	Step Description	Responsible Role	Outputs	Indicative Timing/ Frequency	System
		If no, process ends.				
7	Contact relevant Interconnector Owner	Contact relevant Interconnector Owner to assess the situation.	Real Time	N/A	N/A	Phone
8	EWIC or Moyle Trip?	EWIC or Moyle Trip? If it is EWIC, go step 9. If it is Moyle, go to step 14.	Real Time	N/A	N/A	N/A
9	Contact M&R and discuss expected return to service	Contact Maintenance & Repair and discuss expected return to service.	Real Time	N/A	As soon as possible after trip	Phone
10	Issue Forced Outage (FO) for EWIC	Issue Forced Outage (FO) for EWIC.	Real Time	Forced Outage Notice	As soon as possible after trip	Website
11	Facilitate Control Transfer of EWIC to M&R	Facilitate Control Transfer of EWIC to Maintenance & Repair as per EIL Safety Rules.	Real Time	N/A	As soon as possible after trip	Control Transfer form
12	Disable Frequency Services (notification via fax)	Disable Frequency Services (notification via fax).	Real Time	N/A	As soon as possible after trip	Fax
13	Update EDIL availability on behalf of EIL	Update EDIL availability for EWIC on behalf of EIL.	Real Time	Availability updated	As soon as possible after trip	EDIL
14	Contact M&R and discuss expected return to service	Contact Maintenance & Repair and discuss expected return to service.	Real Time	N/A	As soon as possible after trip	Phone
15	Perform Long Term and Short Term Scheduling	Perform Long Term and Short Term Scheduling process to generate scheduling runs which reflect the trip.	Real Time	LTS/ RTC scheduling runs	As soon as possible after trip	MMS - SCUC/SCED
16	Produce Significant Incident	Produce Significant Incident Report within 2	Real Time	Significant	Within 2 hours of trip	N/A

#	Step	Step Description	Responsible Role	Outputs	Indicative Timing/ Frequency	System
	Report within 2 hours of trip	hours of trip outlining the details of the trip.		Incident Report		
17	Send to NGET	Once complete send SIR to NGET.	Real Time	N/A	N/A	N/A
18	Receive SIR	Receive SIR.	NGET	N/A	N/A	N/A

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)