

## **SEM Agreed Procedure**

<b>Title</b>	<b>Agreed Procedure 2: Interconnector User Capacity Right Calculation and Dispatch Notification</b>
<b>Version</b>	<b>2.2a</b>
<b>Date</b>	<b>23<sup>rd</sup> March 2007</b>

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## DOCUMENT HISTORY

VERSION	DATE	AUTHOR	COMMENT
1.0	18/10/2006	SEM Implementation Team	Incorporation of more comments
2.0	02/11/2006	SEM Implementation Team	Additional comments
2.1	28/02/2007	Regulatory Authorities	Updated with comments from review of Terminology across all APs and TSC
2.2a	23/03/07	Regulatory Authorities	Updated with consistency check comments against System Baseline Code

## RELATED DOCUMENTS

DOCUMENT TITLE	VERSION	DATE	BY
Trading and Settlement Code	V1.2a	31/01/2007	Regulatory Authorities
BETTA Operational Procedures	Version 3.0	November 05	SONI
Moyle Interconnector Procedures	Version 1.0	7 <sup>th</sup> March 2005	SONI
Agreed Procedure 1 "Participant and Unit Registration and Deregistration"	V2.0		
Agreed Procedure 4 "Transaction Submission and Validation"	V2.0		
Agreed Procedure 11 "Market System Operation, Testing, Upgrading and Support"	V2.0		

## **1. INTRODUCTION**

### **1.1. BACKGROUND AND PURPOSE**

This Agreed Procedure describes the specific procedures for the operation of Interconnectors which connect the Transmission Systems of Ireland or Northern Ireland with systems outside Ireland and Northern Ireland and which therefore fall within the SEM (the “Single Electricity Market”). This Agreed Procedure sets out the processes for the operation of Interconnectors as required by the Trading and Settlement Code (the “Code”) and with which Parties to the Code must comply.

### **1.2. SCOPE OF AGREED PROCEDURE**

This Agreed Procedure is a definition of procedural steps to be followed by the Market Operator, Interconnector Owner, Interconnector Administrator(s), System Operator(s) and Participants. It forms an annexe to, and is governed by, the Code. This document is a statement of process and procedure. Parties’ rights and obligations are set out in the Code.

### **1.3. DEFINITIONS**

Save as expressly defined, words and expressions defined in the Code shall have the same meanings when used in this Agreed Procedure.

References to particular sections relate internally to this Agreed Procedure unless specifically noted.

### **1.4. COMPLIANCE WITH AGREED PROCEDURE**

Compliance with this Agreed Procedure is required under the terms as set out in paragraph 1.10 of the Code.

**Note: During the development of the Agreed Procedure, terms under discussion are highlighted in yellow and put in [brackets].**

## **2. DESCRIPTIVE OVERVIEW**

Interconnectors are operated differently to other SEM contributors in meeting the generation requirement of the market. The Code provides that an Interconnector Owner (the entity that owns or controls an Interconnector) will appoint an Interconnector Administrator to determine the Interconnector Unit Import Capacity Holding and Interconnector Unit Export Capacity Holding for each Interconnector Unit and perform other functions of the Interconnector Administrator under the Code.

As a result of the implementation of the BETTA, there are procedures established for the interface to the relevant market in Great Britain under BETTA.

The Interconnector Administrator is responsible for determining the Interconnector Unit Capacity Holdings for each Interconnector Unit. For each Interconnector an Interconnector Error Unit and an Interconnector Residual Capacity Unit are created which are used for managing and settling Interconnector imbalances and utilization of residual capacity. On registration of the Interconnector the Interconnector Owner determines the Interconnector Administrator who is required to register the Interconnector Error Unit. The procedures to be followed by the Interconnector Administrator in determining the Interconnector Unit Capacity Holdings and in recovering the Interconnector imbalances are set out in separate procedures for the relevant Interconnector. These procedures are established by the Interconnector Administrator by agreement with the Interconnector Owner and fall outside the scope of this Agreed Procedure, but will be consistent with the Code.

In this Agreed Procedure, whenever a Party is required to submit data via a manual method (post/email fax) then the person from that Party must be duly authorised to send that data as set out in Agreed Procedure 11 "Market System Operation, Testing, Upgrading and Support".

### **2.1. REGISTRATION OF INTERCONNECTORS ENTITIES**

The Interconnector, Interconnector Residual Capacity Unit, Interconnector Error Unit and Interconnector Units are registered in accordance with Agreed Procedure 1 "Participant and Unit Registration and Deregistration".

The Interconnector Administrator shall maintain the Interconnector Registration Data in accordance with this Agreed Procedure.

### **2.2. DETERMINING ACTIVE INTERCONNECTOR UNIT CAPACITY HOLDINGS**

#### **2.2.1. Interconnector Unit Capacity Holdings**

Capacity rights on Interconnectors are allocated by auction or as otherwise agreed.

The access arrangements for the relevant Interconnector are as proposed by the Interconnector Owner and approved by the relevant Regulatory Authority. It will be necessary for the Interconnector User to comply with the relevant requirements for acquiring capacity as well as any relevant arrangements in relation to any market to which the Interconnector is connected.

The capacity allocation process results in the Interconnector User having an entitlement to an allocation of capacity on the relevant Interconnector. The Interconnector Administrator determines these allocations of capacity. The SEM requires Interconnector Unit Capacity Holding Data to be at an Interconnector Unit level (a subset of the holding by an Interconnector User). As a result, the Interconnector Administrator will calculate an Interconnector Unit Import Capacity Holding and Interconnector Unit Export Capacity Holding for each Interconnector Unit on a Trading Period basis.

Interconnector Unit Capacity Holdings (export and import) for each Interconnector Unit will then be received by the Market Operator from the Interconnector Administrator by 17:30 on the day prior to Gate Closure (TD-2: Trading Day minus 2) for each Trading Period within the Optimisation Time Horizon.

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### 2.2.2. Active Interconnector Unit Capacity Holdings

Interconnector Unit Capacity Holdings by Interconnector Unit are then adjusted to take into account the Available Transfer Capacity (ATC) for the relevant Interconnector. ATC consists of the Maximum Export Available Transfer Capacity and Maximum Import Available Transfer Capacity. ATC is determined by the System Operator for each Trading Period within the Optimisation Time Horizon. These adjusted Interconnector Unit Capacity Holdings are called Active Interconnector Unit Capacity Holdings and are provided to the relevant Interconnector Users by 19:00 on the day prior to Gate Closure (TD-2: Trading Day minus 2).

The rules for the determination of the Active Interconnector Unit Capacity Holdings are:

If the sum of all Interconnector Unit Import Capacity Holdings is less than or equal to Maximum Import Available Transfer Capacity, then:

- Active Interconnector Unit Import Capacity Holding = Interconnector Unit Import Capacity Holding.

If the sum of all Interconnector Unit Import Capacity Holdings is greater than Maximum Import Available Transfer Capacity, then:

- Active Interconnector Unit Import Capacity Holding = (Maximum Import Available Transfer Capacity \* Interconnector Unit Import Capacity Holding) / (Sum of all Interconnector Unit Import Capacity Holdings).

If the sum of all Interconnector Unit Export Capacity Holdings is less than or equal to Maximum Export Available Transfer Capacity, then:

- Active Interconnector Unit Export Capacity Holding = Interconnector Unit Export Capacity Holding.

If the sum of all Interconnector Unit Export Capacity Holdings is greater than Maximum Export Available Transfer Capacity, then:

- Active Interconnector Unit Export Capacity Holding = (Maximum Export Available Transfer Capacity \* Interconnector Unit Export Capacity Holding) / (Sum of all Interconnector Unit Export Capacity Holdings)

The ATC and the Active Interconnector Unit Capacity Holdings are published in accordance with Agreed Procedure 6 “Publications”.

## 2.3. SEM NOMINATIONS AND SCHEDULING

### 2.3.1. Pre Gate Closure

The Interconnector Administrator shall submit the Interconnector Technical Data, consisting of the Aggregate Interconnector Ramp Rate, prior to Gate Closure

Interconnector Users shall submit Commercial Offer Data for their Interconnector Units prior to Gate Closure. The Commercial Offer Data consists of up to ten Price Quantity Pairs per Interconnector Unit per Trading Period in the Trading Day, Maximum Interconnector Unit Import Capacity and Maximum Interconnector Unit Export Capacity. Negative Quantities in the Price Quantity Pairs relate to exports from the Pool.

Where no valid Commercial Offer Data is submitted in respect of an Interconnector Unit in a Trading Period, the Maximum Interconnector Unit Import Capacity and the Maximum Interconnector Unit Export Capacity is set to zero.

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For each Interconnector Unit in each Trading Period, the Maximum Interconnector Unit Export Capacity shall not exceed the Active Interconnector Unit Export Capacity Holding. For the avoidance of doubt the Maximum Interconnector Unit Export Capacity may be less than the Active Interconnector Unit Export Capacity Holding.

For each Interconnector Unit in each Trading Period, the Maximum Interconnector Unit Import Capacity shall not exceed the Active Interconnector Unit Import Capacity Holding. For the avoidance of doubt the Maximum Interconnector Unit Import Capacity may be less than the Active Interconnector Unit Import Capacity Holding.

For the avoidance of doubt, the Price Quantity Pairs for each Interconnector Unit in each Trading Period apply within the range bounded by the Maximum Interconnector Unit Import Capacity and the Maximum Interconnector Unit Export Capacity.

### 2.3.2. Calculation of Modified Interconnector Unit Nominations

The Market Operator shall by 11:00 on the day prior to the start of the Trading Day determine Interconnector Unit Nominations for each Interconnector Unit from the Ex-Ante Indicative MSP Software Run based on the Active Interconnector Unit Capacity Holding, Commercial Offer Data and Interconnector Technical Data. In calculating the Interconnector Unit Nominations, the Ramp Rate for each Interconnector Unit will be set to a value of 99999.9 MW/min.

The Market Operator shall produce the Modified Interconnector Unit Nominations (MIUNs) by applying the appropriate Aggregate Interconnector Ramp Rate and the rules in Appendix 2 – Calculation of Modified Interconnector Unit N.

The Market Operator shall by 12:00 on the day prior to the start of the Trading Day submit to each Interconnector User in respect of its Interconnector Units the Modified Interconnector Unit Nominations.

The Market Operator shall by 12:00 on the day prior to the start of the Trading Day submit Aggregate Modified Interconnector Unit Nomination (AMIUNs) to the relevant System Operator which represent aggregate import and export MW values per Trading Period over each Interconnector registered in their Jurisdiction.

### 2.3.3. SO Interconnector Trades

The System Operator using the Interconnector Residual Capacity Unit shall be entitled under the terms of the Code to make SO Interconnector Trades across the relevant Interconnector in either direction, using any available interconnector capacity which is not allocated to Interconnector Users under the aggregate of the prevailing Modified Interconnector Unit Nominations.

SO Interconnector Trades must be conducted after Gate Closure and after the calculation of the Modified Interconnector Unit Nominations and the submission to the relevant System Operator of the Aggregate Modified Interconnector Unit Nomination.

### 2.3.4. Post Gate Closure Reductions in ATC

In the event of a technical failure on an Interconnector which causes a reduction in the magnitude of the Available Transfer Capacity (this includes reductions in the absolute magnitude of the Maximum Import Available Transfer Capacity and/or the Maximum Export Available Transfer Capacity) after Gate Closure, the Modified Interconnector Unit Nominations shall be recalculated and re-issued to each Interconnector User for each of their Interconnector Units.

The Modified Interconnector Unit Nominations for each Interconnector Unit shall be revised to the minimum extent necessary, taking account of any SO Interconnector Trades which are in the opposite direction to the aggregate of the Modified Interconnector Unit Nominations, but not taking account of any SO Interconnector Trades which are in the same direction as the aggregate of the Modified Interconnector Unit Nominations.

The Modified Interconnector Unit Nominations shall be recalculated (pro-rated to the new ATC taking account of the relevant SO Interconnector Trades). The Market Operator shall submit the revised Modified Interconnector Unit Nominations to each Interconnector as soon as possible.



### **3. PROCEDURE DEFINITION**

#### **3.1. INTERCONNECTOR REGISTRATION DATA MAINTENANCE**

- 3.1.1. The Interconnector Administrator shall inform the Market Operator of changes to the Interconnector which affect the Interconnector Registration Data by resubmitting the Interconnector Registration data as set out in Appendix 3 - Interconnector Registration Data Transaction at least [60] Working Days prior to effective date of the revised data.
- 3.1.2. Within [5] Working Days of receipt of the revised Interconnector Registration Data, the Market Operator shall submit the Interconnector Registration Data to the relevant System Operator and Meter Data Provider.
- 3.1.3. Within [15] Working Days of receipt of the revised Interconnector Registration Data, the Meter Data Provider and the System Operator shall confirm receipt of the data and advise the Market Operator of any objections or issues, if any, they have with the revised data.
- 3.1.4. At least [30] Working Days prior to the effective date of the revised data the Market Operator shall confirm the validity or otherwise of the revised data with the Interconnector Administrator, the relevant System Operator and Meter Data Provider

#### **3.2. DETERMINING ACTIVE INTERCONNECTOR UNIT CAPACITY HOLDINGS**

- 3.2.1. System Operator determines the Available Transfer Capacity (consisting of the Maximum Import Available Transfer Capacity and the Maximum Export Available Transfer Capacity) for each Interconnector for each Trading Period in the Optimisation Time Horizon). ATC will be determined and submitted to the Market Operator by 09.30 on the day prior to Gate Closure (TD-2) using Interconnector Available Transfer Capacity Data Transaction set out in Appendix E of the Code.
- 3.2.2. The Market Operator publishes ATCs via the Market Website and the Corporate Website by 10.00 on the day prior to Gate Closure (TD-2).
- 3.2.3. Whenever there is a reduction in ATC the System Operator shall submit the revised ATC to the Market Operator as soon as possible using Interconnector Available Transfer Capacity Data Transaction set out in Appendix E of the Code.
- 3.2.4. Interconnector Administrator sends Interconnector Unit Capacity Holding Data by Trading Period (made up of the Interconnector Unit Import Capacity Holding and the Interconnector Unit Export Capacity Holding) to the Market Operator by 17:30 on TD-2 using Interconnector Unit Capacity Holding Data Transaction set out in Appendix E of the Code.
- 3.2.5. By 19:00 on TD-2, the Market Operator calculates and provides to the Interconnector Users, the Active Interconnector Unit Import Capacity Holding and Active Interconnector Unit Export Capacity Holding, based on the Interconnector Unit Capacity Holding Data received from the Interconnector Administrator and the latest ATC received from the System Operator.
- 3.2.6. Prior to Gate Closure, whenever the Market Operator receives from the System Operator a Interconnector Available Transfer Capacity Data Transaction denoting a reduction in ATC after initially calculating the Active Interconnector Unit Import Capacity Holding and Active Interconnector Unit Export Capacity Holding in 3.2.5, the Market Operator shall recalculate and provide to the Interconnector Users, the revised Active Interconnector Unit Import Capacity Holding and revised Active Interconnector Unit Export Capacity Holding, based on the latest ATC received from the System Operator.

### 3.3. SEM NOMINATIONS AND SCHEDULING

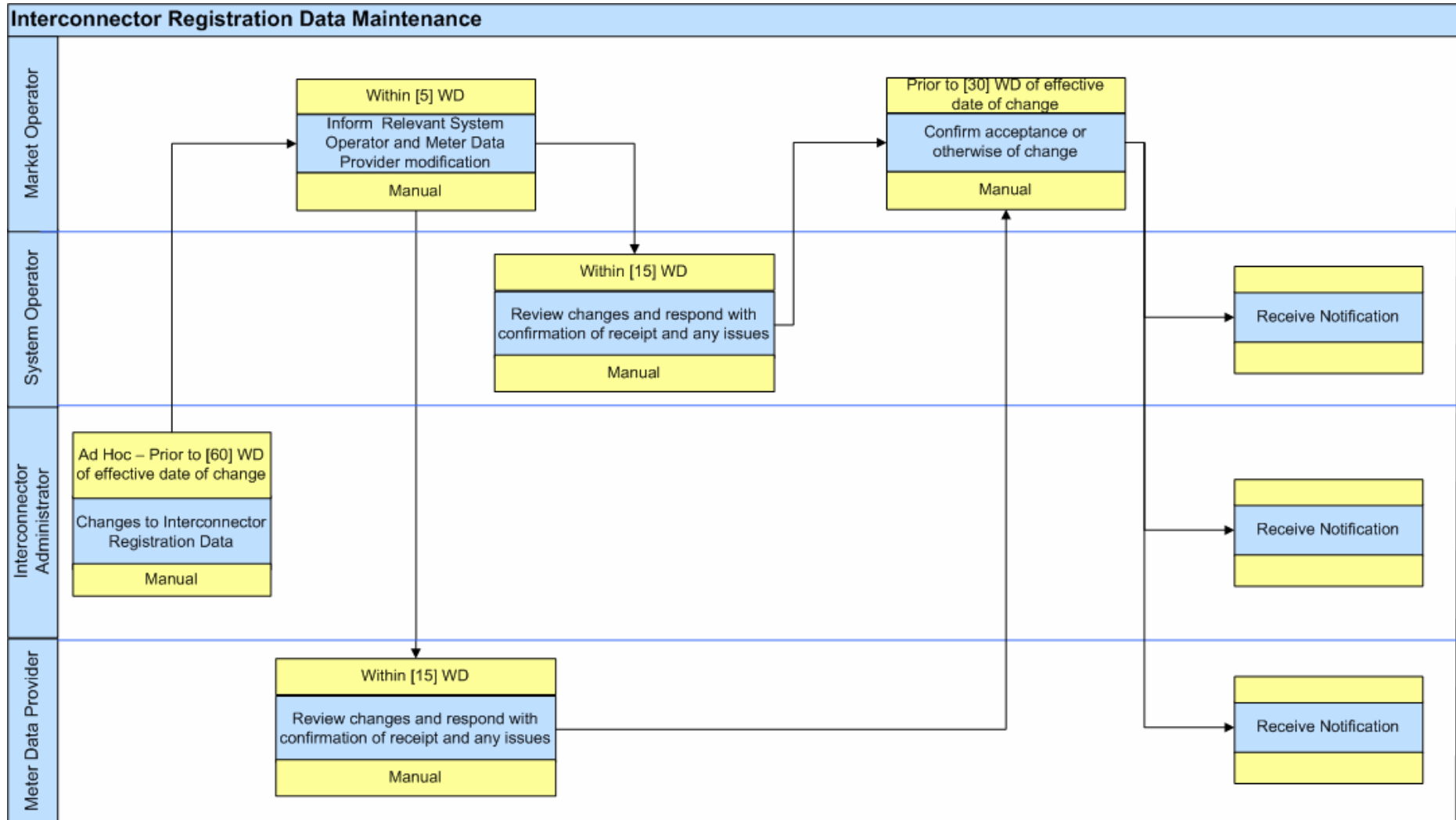
- 3.3.1. Prior to Gate Closure, Interconnector Users shall submit Commercial Offer Data to the Market Operator for each of their Interconnector Units in accordance with Agreed Procedure 4 “Transaction Submission and Validation”
- 3.3.2. Prior to Gate Closure, the Interconnector Administrator shall submit Interconnector Technical Data to the Market Operator using the Interconnector Technical Data Transaction set out in Appendix E of the Code.
- 3.3.3. The Market Operator runs the Ex-Ante Indicative MSP Software Run to determine the Ex-Ante Indicative Market Schedule (IMS) by TD-1 11:00 hours, which contains Interconnector Unit Nominations for each Interconnector Unit based on the Active Interconnector Unit Capacity Holdings, Commercial Offer Data for the Interconnector Units and Technical Offer Data for the Interconnector. The Interconnector Unit Nominations reflect the MSQs for Interconnector Units in the Ex-Ante Indicative Market Schedule.
- 3.3.4. **As soon as possible** after determining the Interconnector Unit Nominations, the Market Operator submits the Interconnector Unit Nominations to the System Operator using the Interconnector Unit Nominations Data Transaction set out in Appendix E of the Code.
- 3.3.5. The System Operator calculates and submits to the Market Operator, the Modified Interconnector Unit Nominations (based on the Interconnector Unit Nominations) by TD-1 12:00 using the Modified Interconnector Unit Nominations Data Transaction set out in Appendix E of the Code.
- 3.3.6. The Market Operator publishes Modified Interconnector Unit Nominations to Interconnector Users by TD-1 12:00 using the Modified Interconnector Unit Nominations Transaction as set out in Appendix E of the Code.

### 3.4. POST GATE-CLOSURE REVISIONS TO ATC

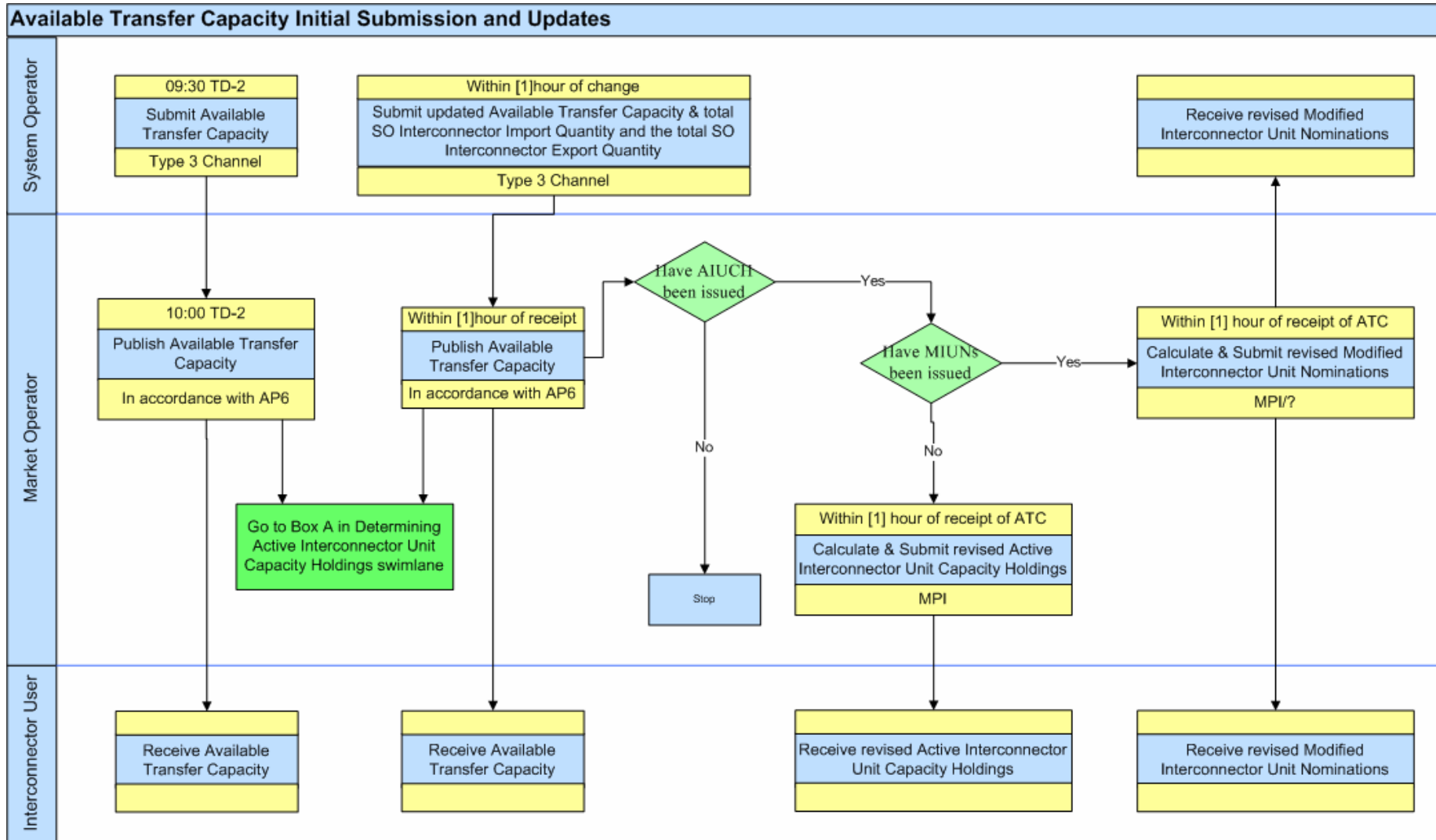
- 3.4.1. In the event that a revision to ATC for a Trading Period occurs after Gate Closure, the System Operator shall notify the Market Operator as soon as possible for each Trading Period, the modified ATC, the total of SO Interconnector Import Quantity and the total SO Interconnector Export Quantity for each Trading Period using the Interconnector Available Transfer Capacity Data Transaction and [**SO Interconnector Trades Data Transaction**] set out in Appendix E of the Code.
- 3.4.2. The Market Operator shall calculate and publish to each Interconnector User, the revised Modified Interconnector Unit Nominations, using the Modified Interconnector Unit Nominations Transaction set out in Appendix E of the Code.
- 3.4.3. At the same time the Market Operator shall submit the revised Modified Interconnector Unit Nominations to the relevant System Operator using the [**???? Transaction**] set out in Appendix E of the Code.

## 4. SWIMLANE DIAGRAM

### 4.1. INTERCONNECTOR REGISTRATION DATA MAINTENANCE

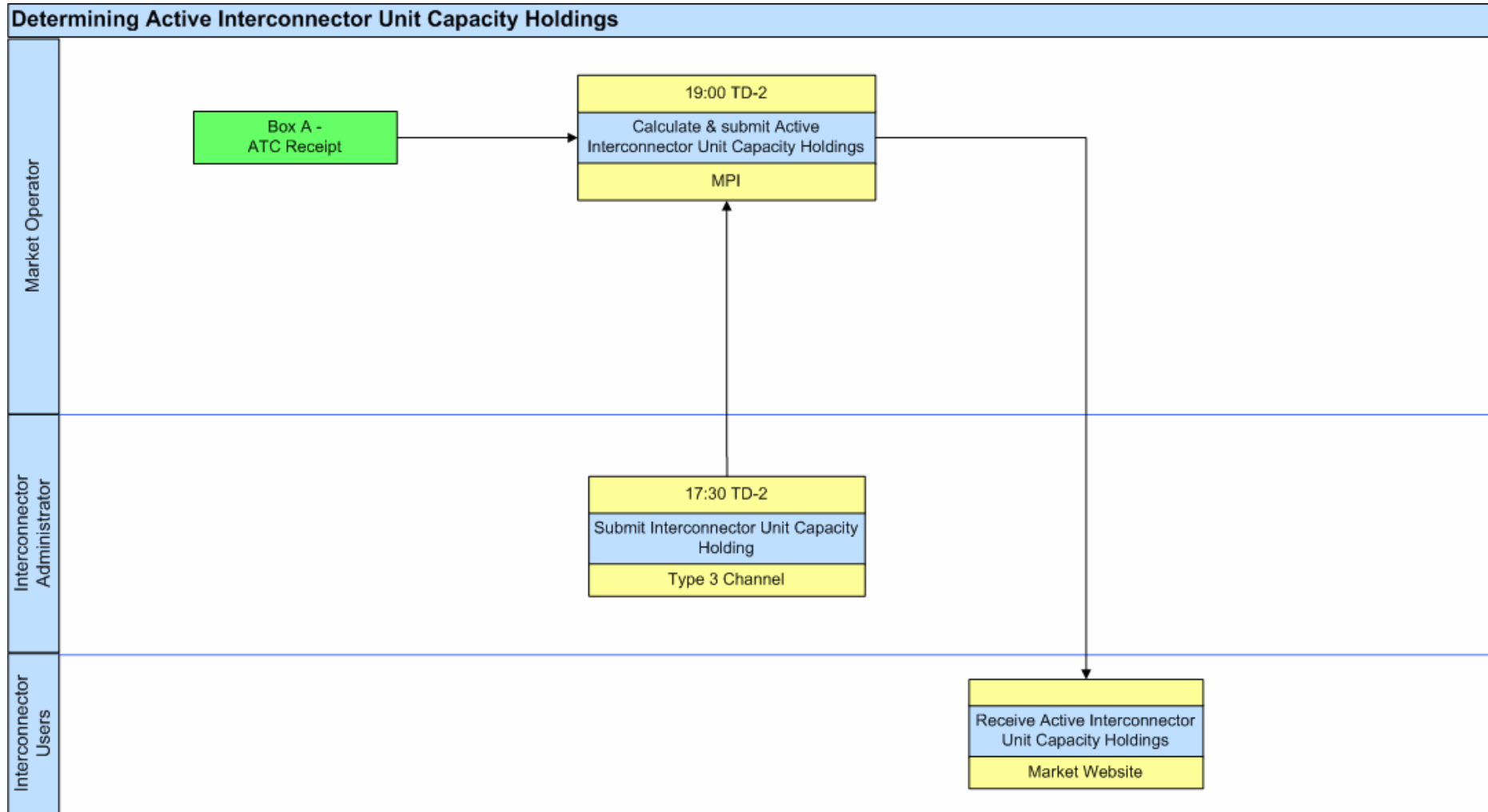


## 4.2. AVAILABLE TRANSFER CAPACITY INITIAL SUBMISSION AND UPDATES

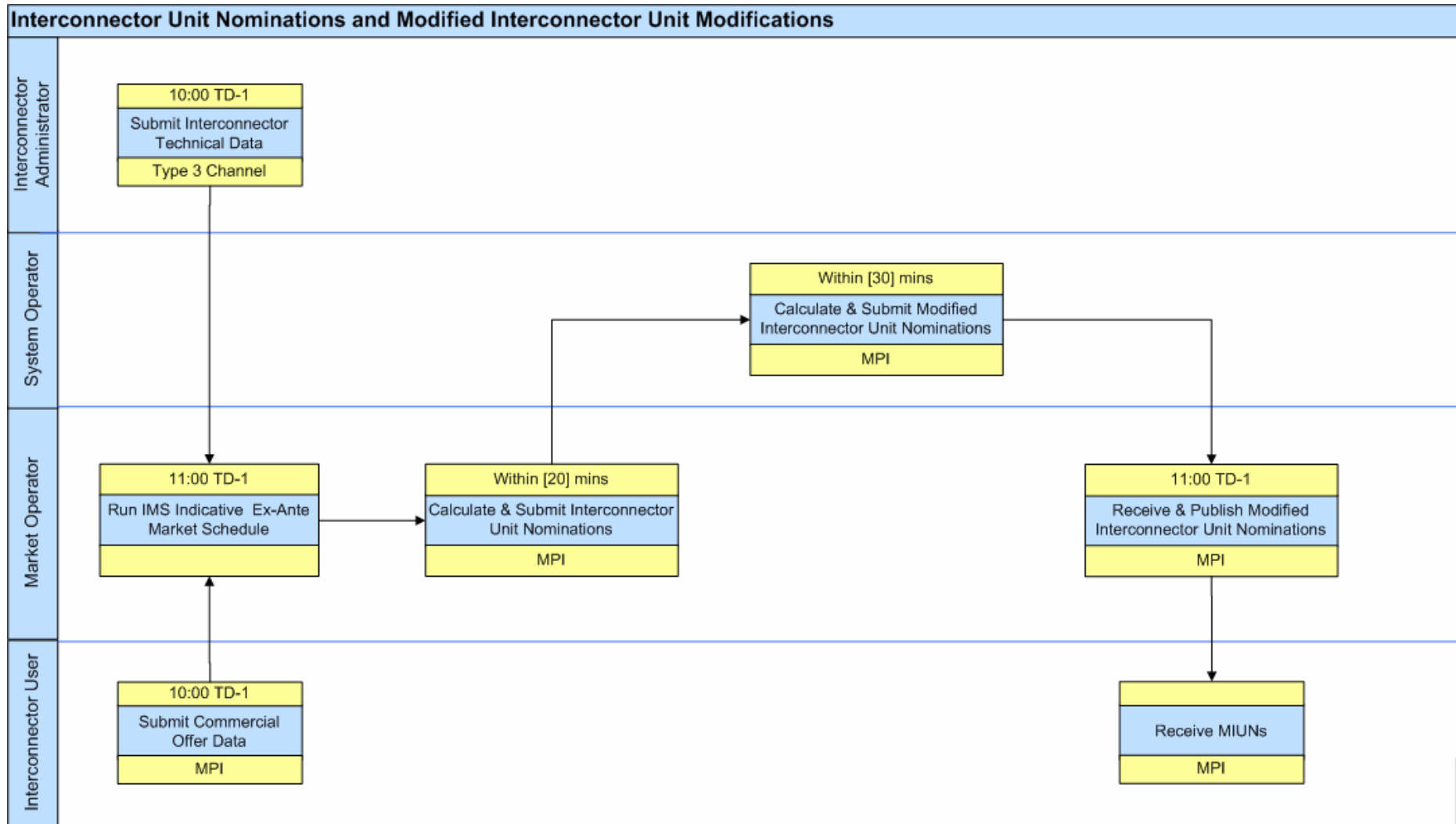


ATC – Available Transfer Capacity, AIUCH = Active Interconnector Unit Capacity Holding, MIUN – Modified Interconnector Unit Nomination

### 4.3. DETERMINING ACTIVE INTERCONNECTOR UNIT CAPACITY HOLDINGS



#### 4.4. INTERCONNECTOR UNIT NOMINATIONS AND MODIFIED INTERCONNECTOR UNIT MODIFICATIONS



## 5. PROCEDURAL STEPS

### 5.1. INTERCONNECTOR REGISTRATION DATA MAINTENANCE

#	Procedural Step	Timing	Method	By/ From	To	Transaction
1	Submit to Market Operator modified Interconnector Registration Data on change of data.	Prior to TD- [60] WD	Manual	Interconnector Administrator	Market Operator	Appendix 3 - Interconnector Registration Data Transaction
2	Submit modified Interconnector Registration to System Operator and Meter Data Provider for review	Within [5] WD of receipt	Manual	Market Operator	System Operator / Meter Data Provider	Appendix 3 - Interconnector Registration Data Transaction
3	Provide confirmation of receipt and issues with the modified Interconnector Registration Data that may affect their obligations under the Code.	Within [15] WD of receipt	-		Market Operator	[TBA]
4	Confirm the validity or otherwise of the modified Interconnector Registration Data	Prior to TD- [30] WD	Manual	Market Operator	Interconnector Administrator / System Operator / Meter Data Provider	[TBA]

### 5.2. INITIAL AVAILABLE TRANSFER CAPACITY SUBMISSION

#	Procedural Step	Timing	Method	By/ From	To	Transaction
1	Determination of the Available Transfer Capacity (ATC) by the relevant System Operator for each Interconnector and submission to the Market Operator.	09:30, TD-2	Type 3 Channel	System Operator	Market Operator	Interconnector Available Transfer Capacity Data Transaction as set out in Appendix E of the Code.
2	Publication of the ATC in accordance with Agreed Procedure 6 “Publications”	10:00, TD-2	Corporate Website	Market Operator	Parties	Agreed Procedure 6 “Publications”

### 5.3. DETERMINING ACTIVE INTERCONNECTOR UNIT CAPACITY HOLDINGS

#	Procedural Step	Timing	Method	By/ From	To	Transaction
1	Submission of Interconnector Unit Capacity Holding Data by the Interconnector Administrator for each Interconnector Unit.	17:30, TD-2	Type 3 Channel	Interconnector Administrator	Market Operator	Interconnector Unit Capacity Holding Data Transaction as set out in Appendix E of the Code.
2	Calculation of Active Interconnector Unit Import Capacity Holding and Active Interconnector Unit Export Capacity Holding for each Interconnector Unit and provide to relevant Interconnector User.	19:00, TD-2	Type 2 Channel / Type 3 Channel	Market Operator	Interconnector Users	MPI

### 5.4. DETERMINING INTERCONNECTOR UNIT NOMINATIONS AND MODIFIED INTERCONNECTOR UNIT NOMINATIONS

1	Submission of Commercial Offer Data for Interconnector Units.	10:00, TD-1	Type 2 Channel / Type 3 Channel	Interconnector User	Market Operator	Agreed Procedure 4 “Transaction Submission and Validation”
2	Submission of Interconnector Technical Data for the Interconnector.	10:00, TD-1	Type 2 Channel / Type 3 Channel	Interconnector Administrator	Market Operator	Interconnector Technical Data Transaction as set out in Appendix E of the Code.
3	Calculate the Interconnector Unit Nomination from the MSQs from the Ex-Ante Indicative MSP Software Run.	By 11:00, TD-1	-	Market Operator		
4	Submission of Interconnector Unit Nomination to System Operator	Within [20] minutes	Type 2 Channel / Type 3 Channel	Market Operator	System Operator	Interconnector Unit Nominations Data Transaction as set out in Appendix E of the Code.
5	Calculation of Modified Interconnector Unit Nominations (MIUNs) and submit them to the Market Operator.	Within [30] minutes	Type 2 Channel / Type 3 Channel	System Operator	Market Operator	Modified Interconnector Unit Nominations Data Transaction set out in Appendix E of the Code
6	Submission of Modified Interconnector Unit Nominations to Interconnector Users	By 12:00, TD-1	Type 2 Channel / Type 3 Channel	Market Operator	Interconnector User	Modified Interconnector Unit Nominations Transaction as set out in Appendix E of the Code.



## 5.5. UPDATES TO AVAILABLE TRANSFER CAPACITY

#	Procedural Step	Timing	Method	By/ From	To	Transaction
1	Determination of the Available Transfer Capacity (ATC) by the relevant System Operator for each Interconnector and submission to the Market Operator. Submission of SO Interconnector Import Quantity and the total SO Interconnector Export Quantity	Within [1] hour of change	Type 3 Channel	System Operator	Market Operator	Interconnector Available Transfer Capacity Data Transaction (Code Appendix E) <i>SO Interconnector Trades</i>
2	Publication of the ATC in accordance with Agreed Procedure 6 “Publications”	Within [1] hour	Corporate Website	Market Operator	Parties	Agreed Procedure 6 “Publications”
3	If receipt is after calculation of Active Interconnector Unit Capacity Holding go to step 4 otherwise go to step 7	-				
4	If receipt is after receipt of Modified Interconnector Unit Nominations from the System Operator go to step 6 otherwise go to step 5	-				
5	Re-calculation of Active Interconnector Unit Import Capacity Holding and Active Interconnector Unit Export Capacity Holding for each Interconnector Unit and provide to relevant Interconnector User. Go to step 7	Within [1] hour of step 1	Type 2 Channel / Type 3 Channel	Market Operator	Interconnector Users	MPI
6	Revision and submission of Modified Interconnector Unit Nominations to Interconnector Users	Within [1] hour of step 1	Type 2 Channel / Type 3 Channel	Market Operator	Interconnector User  System Operator	Modified Interconnector Unit Nominations Transaction as set out in Appendix E of the Code. <i>????</i>
7	End	-				

## **6. APPENDIX 1 – DEFINITIONS AND ABBREVIATIONS**

### **6.1. DEFINITIONS**

Active Interconnector Unit Capacity Holding	As defined in the Code
Active Interconnector Unit Export Capacity Holding	As defined in the Code
Active Interconnector Unit Import Capacity Holding	As defined in the Code
Aggregate Interconnector Ramp Rate	As defined in the Code
Aggregate Modified Interconnector Unit Nomination	As defined in the Code
Agreed Procedure	As defined in the Code
Available Transfer Capacity	As defined in the Code
BETTA	As defined in the Code
Capacity Payment	As defined in the Code
Change Point	As defined in Appendix 2 – Calculation of Modified Interconnector Unit N
Code	As defined in the Code
Corporate Website	as defined in Agreed Procedure 1 "Participant and Unit Registration and Deregistration"
Commercial Offer Data	As defined in the Code
Ex-Ante Indicative Market Schedule	As defined in the Code
Ex-Ante MSP Software Run	As defined in the Code
Gate Closure	As defined in the Code
Interconnector	As defined in the Code
Interconnector Administrator	As defined in the Code
Interconnector Owner	As defined in the Code
Interconnector Registration Data	As defined in the Code
Interconnector Residual Capacity Unit	As defined in the Code
Interconnector Technical Data	As defined in the Code

Interconnector Unit	As defined in the Code
Interconnector Unit Capacity Holding	As defined in the Code
Interconnector Unit Capacity Holding Data	As defined in the Code
Interconnector Unit Export Capacity Holding	As defined in the Code
Interconnector Unit Import Capacity Holding	As defined in the Code
Interconnector Unit Nomination	As defined in the Code
Aggregate Modified Interconnector Unit Nomination	As defined in the Code
Interconnector User	As defined in the Code
Intersection	As defined in Appendix 2 – Calculation of Modified Interconnector Unit N
Logical Interconnector	As defined in Appendix 2 – Calculation of Modified Interconnector Unit N
Market Operator	As defined in the Code
Market Participant Interface	as defined in Agreed Procedure 1 "Participant and Unit Registration and Deregistration"
Market Schedule Quantity	As defined in the Code
Maximum Export Available Transfer Capacity	As defined in the Code
Maximum Export Available Transfer Capacity	As defined in the Code
Maximum Interconnector Unit Export Capacity	As defined in the Code
Maximum Interconnector Unit Import Capacity	As defined in the Code
Modified Interconnector Unit Nomination	As defined in the Code
No Load Cost	As defined in the Code
Optimisation Time Horizon	As defined in the Code
Participant	As defined in the Code
Party	As defined in the Code
Pool	As defined in the Code

Price Quantity Pairs	As defined in the Code
Quantity	As defined in the Code
Ramp Rate	As defined in the Code
Regulatory Authorities	As defined in the Code
Run-Through	As defined in Appendix 2 – Calculation of Modified Interconnector Unit N
Settlement Period	As defined in the Code
Single Electricity Market	As defined in the Code
Start Up Costs	As defined in the Code
SO Interconnector Export Quantity	As defined in the Code
SO Interconnector Import Quantity	As defined in the Code
SO Interconnector Trades	As defined in the Code
System Operators	As defined in the Code
Technical Offer Data	As defined in the Code
Trading Day	As defined in the Code
Trading Period	As defined in the Code
Trip	As defined in Appendix 2 – Calculation of Modified Interconnector Unit N
Unit	As defined in the Code

## **6.2. ABBREVIATIONS**

ATC	Available Transfer Capacity
MIUN	Modified Interconnector Unit Nomination
MPI	Market Participant Interface
MSQ	Market Schedule Quantity
SEM	Single Electricity Market
TD	Trading Day
TOD	Technical Offer Data
AMIUN	Aggregate Modified Interconnector Unit Nomination
IUN	Interconnector Unit Nomination

## **7. APPENDIX 2 – CALCULATION OF MODIFIED INTERCONNECTOR UNIT NOMINATIONS**

### **1. Introduction**

This Appendix describes in general terms the rules used by the Market Operator to calculate Modified Interconnector Unit Nominations from the Interconnector Unit Nominations. These rules are for information purposes only and are not binding on the Market Operator.

### **2. Definitions**

In this Appendix:

- “Change Point”** is a point that occurs whenever any interconnector contract’s Interconnector Unit Nomination changes or whenever the ramp rate changes;
- “Intersection”** means the situation where the Interconnector is dispatched upwards but before the target can be achieved the Interconnector must be dispatched downwards in order to achieve the next Change Point’s target;
- “Logical Interconnector”** means the interconnector in which electricity flows in one direction, i.e. electricity flowing from Scotland to Northern Ireland will form one logical interconnector and electricity flowing from Northern Ireland to Scotland will form another logical interconnector;
- “Run-Through”** Means the situation where the Interconnector is dispatched upwards but cannot achieve its target by the next Change Point, and cannot achieve the Change Point’s expected position at the Change Point boundary;
- “Trip”** Means an unplanned outage of all or part of the Interconnector. A trip is identified by a reduction of ATC where the ramp rate is set to zero.

### **3. Allocation Rules**

- 3.1 The Modified Interconnector Unit Nominations for a contract must not exceed its Interconnector Unit Nominations for any Trading Period.
- 3.2 The ramp rate for the Interconnector applies to the sum of all the Interconnector Unit Nominations and not to the individual contracts.
- 3.3 The ramp rate for the Interconnector is divided up pro-rata to contracts of equal priority. Contracts of equal priority must start and finish their ramp at the same time.
- 3.4 Where an Interconnector Unit Nomination for a Trading Period is less than the Interconnector Unit Nomination for the previous Trading Period, the contract must be ramped in order to reach its Interconnector Unit Nomination by the Settlement Period boundary. This ramping may take place over any number of Trading Periods, including the previous day if necessary.

- 3.5 Where an Interconnector Unit Nomination for a Trading Period is greater than the Interconnector Unit Nomination for the previous Trading Period the contract must not start ramping until the Trading Period boundary. This ramping may take place over any number of Trading Periods.
- 3.6 Where multiple Interconnector Unit Nominations for a particular Trading Period change in a manner that results in no change to the sum of all the Interconnector Unit Nominations for that Trading Period, the ramps shall be instantaneous.
- 3.7 The Interconnector ramps between 0 and 15MWs instantaneously.
- 3.8 The Interconnector ramps between 0 and -15MWs instantaneously.
- 3.9 If the total Interconnector Unit Nominations for a Trading Period are  $> -15\text{MW}$  and  $< +15\text{MW}$ , then each of the Interconnector Unit Nominations should be considered to be zero for the purpose of calculating the Modified Interconnector Unit Nominations.
- 3.10 Any instant ramp resulting from the Interconnector passing through  $-15\text{MW}$ ,  $0\text{MW}$  or  $+15\text{MW}$  should be allocated to the individual contract(s) that are ramping at the time of the instant ramp.
- 3.11 Any contracts moving in opposition to the net Interconnector flow are deemed to move instantly on the Change Point boundary. The instant ramp is allocated to contracts moving with the Interconnector on a pro-rata basis.
- 3.12 If a Trip occurs on a Logical Interconnector then all contracts on that Logical Interconnector ramp instantly to the Logical Interconnector's ATC.
- 3.13 The sum of the Interconnector Unit Nominations for a Logical Interconnector cannot exceed the ATC for that Logical Interconnector.

## 8. APPENDIX 3 - INTERCONNECTOR REGISTRATION DATA TRANSACTION

The Interconnector Data Transaction shall contain the following items:

1. the Aggregate Import Capacity;
2. the Aggregate Export Capacity;
3. the Aggregate Minimum Import Capacity;
4. the Aggregate Minimum Export Capacity;
5. Currency Zone;
6. the Participant which is the Interconnector Administrator and is also the Participant in respect of the Interconnector Error Unit.