



Statement of Charges
Applicable from 1st October 2021

CONTENTS

DOCUMENT HISTORY 3

CORRESPONDENCE INFORMATION..... 3

INTRODUCTION 4

TARIFF SCHEDULE DTS-T (LEUs) 7

TARIFF SCHEDULE DTS-D1 (LEUs) 8

TARIFF SCHEDULE DTS-D1 (NON-LEUs) 9

TARIFF SCHEDULE DTS-D2 (LEUs) 10

TARIFF SCHEDULE DTS-D2 (NON-LEUs) 11

TARIFF SCHEDULE GTS-T 12

TARIFF SCHEDULE GTS-D 14

TARIFF SCHEDULE ATS-T..... 16

TARIFF SCHEDULE ATS-D 18

TARIFF SCHEDULE APPLICATION FEES..... 20

TARIFF SCHEDULE MODIFICATION FEES 21

TARIFF TERMS AND CONDITIONS 22

1 DEFINITIONS AND INTERPRETATIONS..... 23

2 METERING AND CHARGING 27

SCHEDULE 1 - GENERATION LOCATION BASED CHARGES 28

SCHEDULE 2 – OTHER SYSTEM CHARGES 39

APPENDIX 1: DISTRIBUTION LOSS FACTORS..... 41

APPENDIX 2: TYPES OF MODIFICATIONS AND ASSOCIATED LEVELS..... 43

DOCUMENT HISTORY

1. The 2021/22 Statement of Charges document v1.0 was approved by the CRU on 27/08/2021 and published on the EirGrid website www.eirgrid.com on 01/09/2021.

CORRESPONDENCE INFORMATION

Further information on matters discussed in this document may be obtained from the following:

Customers and Connections

EirGrid plc

Block 2 - The Oval

160 Shelbourne Road

Ballsbridge

Dublin 4

Ireland

Email: info@eirgrid.com

Tel: +353 1 237 0472

Fax: +353 1 661 5375

INTRODUCTION

This statement sets out EirGrid's charges for use of the transmission system applicable from October 1st 2021 until such time another Statement is approved by the Commission under Section 36 of the Electricity Regulation Act, 1999. The Transmission Use of System charges published in this statement have been derived in accordance with the 2021 revenue ([CRU/20/095](#)) and the 2022 revenue ([CRU/21/078](#)) allowed by the Commission for Regulation of Utilities (CRU).

These tariffs may be subject to change and in such cases EirGrid shall notify suppliers and generators. Any additional generators who connect to the transmission system or distribution system throughout the year will be liable for charges and these charges shall be published when derived. In accordance with the SEM Committee Decision, Interconnectors are not charged TUoS (see SEM/11/078). This is in line with EU legislation (Regulation EC No 714/2009).

This document has been prepared by EirGrid in accordance with Section 35 and submitted to and approved by the CRU in accordance with Section 36 of the Electricity Regulation Act, 1999, as amended by the Electricity Regulation (Single Electricity Market) Act of 2007.

This statement sets out the following:

- Charges for the use of the Transmission System
- Connection Offer Process and Modification Application Fees
- Other System Charges

The following are published as separate documents:

- Statement of Payments and Charges for Ancillary Services Providers
- Transmission Loss Adjustment Factors

Transmission Use of System Charges (TUoS)

The transmission system is the high voltage grid which brings bulk power to all regions of Ireland. It is the backbone of the power system. The main charge for transporting power in bulk across the power system is the Transmission Use of System Charge (TUoS). TUoS charges are separate from the cost paid by customers for energy.

TUoS charges are designed to recover two components:

- (a) **Network Charges**: for the use of the transmission system infrastructure for the transportation of electricity. Use of the network occurs by users importing from the system (Demand TUoS) and by users exporting to the system (Generation TUoS). Some users are subject to charges for both importing and exporting where generation and demand exist on the same premises.
- (b) **System Services Charges**: for the recovery of the costs arising from the operation and security of the transmission system.

TUoS charges are grouped into three tariff categories:

1. **Demand Transmission Service (DTS)**: includes five classes of service under which charges to suppliers are levied for Use of System (Network Charges & System Services Charges) associated in serving their customers connected either to the transmission system or the distribution system.
2. **Generation Transmission Service (GTS)**: includes two classes of service under which charges to generators are levied on generators connected to either the transmission or distribution system for use of the system (Network Charges & System Services Charges) associated with their exporting of electricity for sale and periodic importing for consumption by start-up and standby equipment.
3. **Autoproducer Transmission Service (ATS)**: includes two classes of service under which charges to Autoproducers are levied on Autoproducers connected to either the transmission

or distribution system for use of the system (Network Charges & System Services Charges) associated with their exporting of electricity for sale and importing for consumption by on-site demand.

Distribution Loss Factors

The application of Distribution Loss Factors is necessary to adjust Transmission Use of System charges to account for Distribution System losses for Users that are connected to the Distribution System. The relevant Distribution Loss Factor will depend on the Users' connection voltage and on the time of day (day/night).

In addition to the Transmission Use of System Charges, this statement also sets out the following charges and fees

Connection Offer Process and Modification Application Fees

This statement sets out the fees for Users who wish to apply to connect to the Transmission System in Ireland. There are two types of application fees; those that are applicable to the Group Processing Approach and those outside that approach. The fee depends on the size of the connection and if shallow connection works are involved.

Other System Charges

Other System Charges are applicable to centrally dispatched generators and are described in the Other System Charges methodology statement¹. These charges do not form part of the Transmission Use of System revenue requirement.

Generation Location Based Charges

Generation Location Based Charges, also referred to as GTUoS, are applicable to all generators connected to the transmission system and to generators connected to the distribution system which have a contracted Maximum Export Capacity of above 5MW.

¹ <http://www.eirgridgroup.com/customer-and-industry/general-customer-information/ancillary-and-charges/>

TRANSMISSION USE OF SYSTEM CHARGES

TARIFF SCHEDULE DTS-T (LEUs)

Demand Transmission Service - Transmission Connections

CONDITIONS

APPLICABLE TO: *Demand Users* supplying a *Customer* directly connected to the *Transmission System* at each *Grid Exit Point* and those users classed as belonging to the DUoS DG10 group from the customer's Connection Date.

CHARGES: Use of System Charges for service under Tariff Schedule DTS-T (LEUs²) in any one *Charging Period* shall be the sum of:

DEMAND TUOS CHARGES

(a) **Demand Network Capacity Charge:**

€ 1,320.7355/MW for each *MW* of Charging Capacity in the *Charging Period*.

Where Charging Capacity is the lesser of:

- i) the *Customer's Maximum Import Capacity*, or
- ii) the greater of the Minimum Charging Capacity and the highest *Metered Consumption Demand* of the *Customer* in the *Charging Period*

Where the Minimum Charging Capacity is the greater of:

- i) 80% of the *Customer's Maximum Import Capacity*, or
- ii) the *Customer's Maximum Import Capacity* less 4 *MW*

(b) **Demand Network Unauthorised Usage Charge:**

€ 755.4961/MWh for *Metered Consumption Energy*³ transferred in excess of the *Customer's Maximum Import Capacity* in the *Charging Period*.

(c) **Demand Network Transfer Charge:**

€ 2.4331/MWh for *Metered Consumption Energy* transferred in the *Charging Period*.

(d) **Demand System Services Charge:**

€ 9.5429/MWh for *Metered Consumption Energy* transferred in the *Charging Period*.

OTHER CONDITIONS

TERMS: Terms and conditions set forth in the *Tariff Terms and Conditions* form part of this tariff schedule.

² Large Energy User (LEU) is defined later in Definitions and Interpretations.

³ Metered Consumption Energy is defined later in Definitions and Interpretations. Electricity consumed by directly connected transmission users is not adjusted to take account of distribution losses.

TARIFF SCHEDULE DTS-D1 (LEUs)

Demand Transmission Service - Distribution Connections classed as Large Energy Users and with Maximum Import Capacity agreements \geq 0.5MW

CONDITIONS

APPLICABLE TO: *Demand Users* supplying a *Customer* indirectly connected to the *Transmission System* via the *Distribution System* at each *Exit Point* from the customer's connection date where the User's *Customer* has a connection agreement with a stated *Maximum Import Capacity* of 0.5MW or greater and quarter-hourly interval metering and is a *Large Energy User*.

Where possible any *Users* with *Customers* that have an *MIC* of 0.5 MW or above (prior to adjusting for the appropriate distribution loss factor), and is a *Large Energy User*, will be charged based on tariff schedule DTS-D1 (LEUs). In some cases the required information on *MICs* or required metered data may not be available and these *Users* will be charged on tariff schedule DTS-D2 (LEUs) as a proxy for the DTS-D1 (LEUs) tariff schedule.

CHARGES: Use of System Charges for service under Tariff Schedule DTS-D1 (LEUs) in any one *Charging Period* shall be the sum of the following:

DEMAND TUOS CHARGES

(a) **Demand Network Capacity Charge:**

€ 1,112.1153/MW for each *MW* of *Charging Capacity* in the *Charging Period*.

Where *Charging Capacity* is the lesser of:

- i) the *Customer's Maximum Import Capacity* multiplied by the highest applicable *Distribution Loss Factor*, or
- ii) the greater of the *Minimum Charging Capacity* and the highest *Metered Consumption Demand* of the *Customer* in the *Charging Period*

Where the *Minimum Charging Capacity* is the greater of:

- i) 80% of the *Customer's Maximum Import Capacity* multiplied by the highest applicable *Distribution Loss Factor*, or
- ii) the *Customer's Maximum Import Capacity* multiplied by the highest applicable *Distribution Loss Factor* less 4 *MW*

(b) **Demand Network Transfer Charge:**

€ 2.4331/MWh for *Metered Consumption Energy*⁴ transferred in the *Charging Period*.

(c) **Demand System Services Charge:**

€ 9.5429/MWh for *Metered Consumption Energy* transferred in the *Charging Period*.

OTHER CONDITIONS

LOSSES: Demand TUoS charges for distribution connections maybe subject to adjustment by distribution loss factors (see Appendix 1).

TERMS: Terms and conditions set forth in the *Tariff Terms and Conditions* form part of this tariff schedule.

⁴ Metered Consumption Energy is defined later in Definitions and Interpretations.

TARIFF SCHEDULE DTS-D1 (NON-LEUs)

Demand Transmission Service - Distribution Connections not classed as Large Energy Users and with Maximum Import Capacity agreements \geq 0.5MW

CONDITIONS

APPLICABLE TO: *Demand Users* supplying a *Customer* indirectly connected to the *Transmission System* via the *Distribution System* at each *Exit Point* from the customer's connection date where the *User's Customer* has a connection agreement with a stated *Maximum Import Capacity* of 0.5MW or greater and quarter-hourly interval metering and is not a *Large Energy User*.

Where possible any *Users* with *Customers* that have an *MIC* of 0.5 MW or above (prior to adjusting for the appropriate distribution loss factor) and is not a *Large Energy User* will be charged based on tariff schedule DTS-D1 (Non-LEUs). In some cases the required information on *MICs* or required metered data may not be available and these *Users* will be charged on tariff schedule DTS-D2 (Non-LEUs) as a proxy for the DTS-D1 (Non-LEUs) tariff schedule.

CHARGES: Use of System Charges for service under Tariff Schedule DTS-D1 (Non-LEUs) in any one *Charging Period* shall be the sum of the following:

DEMAND TUOS CHARGES

(a) **Demand Network Capacity Charge:**

€ 1,271.1777/MW for each MW of Charging Capacity in the *Charging Period*.

Where Charging Capacity is the lesser of:

- iii) the *Customer's Maximum Import Capacity* multiplied by the highest applicable *Distribution Loss Factor*, or
- iv) the greater of the *Minimum Charging Capacity* and the highest *Metered Consumption Demand* of the *Customer* in the *Charging Period*

Where the Minimum Charging Capacity is the greater of:

- iii) 80% of the *Customer's Maximum Import Capacity* multiplied by the highest applicable *Distribution Loss Factor*, or
- iv) the *Customer's Maximum Import Capacity* multiplied by the highest applicable *Distribution Loss Factor* less 4 MW

(b) **Demand Network Transfer Charge:**

€ 2.7812/MWh for *Metered Consumption Energy*⁵ transferred in the *Charging Period*.

(c) **Demand System Services Charge:**

€ 10.9078/MWh for *Metered Consumption Energy* transferred in the *Charging Period*.

OTHER CONDITIONS

LOSSES: Demand TUoS charges for distribution connections maybe subject to adjustment by distribution loss factors (see Appendix 1).

TERMS: Terms and conditions set forth in the *Tariff Terms and Conditions* form part of this tariff schedule.

⁵ Metered Consumption Energy is defined later in Definitions and Interpretations.

TARIFF SCHEDULE DTS-D2 (LEUs)

Demand Transmission Service - Distribution Connections classed as Large Energy Users but not served under Tariff Schedule DTS-D1 (LEUs)

CONDITIONS

APPLICABLE TO: *Demand Users* supplying a *Customer* indirectly connected to the *Transmission System* via the *Distribution System* not served under Tariff Schedule DTS-D1 (LEUs) and is a *Large Energy User*.

CHARGES: Use of System Charges for service under Tariff Schedule DTS-D2 (LEUs) in any one *Charging Period* shall be the sum of the following:

DEMAND TUOS CHARGES

- (a) **Demand Network Capacity Charge:**
€ 5.1655/MWh for *Metered Consumption Energy*⁶ transferred during *Day Hours* in the *Charging Period*.
- (b) **Demand Network Transfer Charge:**
€ 2.4331/MWh for *Metered Consumption Energy* transferred in the *Charging Period*.
- (c) **Demand System Services Charge:**
€ 9.5429/MWh for *Metered Consumption Energy* transferred in the *Charging Period*.

OTHER CONDITIONS

LOSSES: Demand TUoS charges for distribution connections maybe subject to adjustment by distribution loss factors (see Appendix 1).

TERMS: Terms and conditions set forth in the *Tariff Terms and Conditions* form part of this tariff schedule.

⁶ Metered Consumption Energy is defined later in Definitions and Interpretations.

TARIFF SCHEDULE DTS-D2 (NON-LEUs)

Demand Transmission Service - Distribution Connections not classed as Large Energy Users but not served under Tariff Schedule DTS-D1 (Non-LEUs)

CONDITIONS

APPLICABLE TO: *Demand Users* supplying *Customers* indirectly connected to the *Transmission System* via the *Distribution System* for all other demand, in aggregate, not served under Tariff Schedules DTS-T (LEUs), DTS-D1 (LEUs), DTS-D1 (Non-LEUs) and DTS-D2 (LEUs) and are not *Large Energy Users*.

CHARGES: Use of System Charges for service under Tariff Schedule DTS-D2 (Non-LEUs) in any one *Charging Period* shall be the sum of the following:

DEMAND TUOS CHARGES

- (a) **Demand Network Capacity Charge:**
€ 5.9043/MWh for *Metered Consumption Energy*⁷ transferred during *Day Hours* in the *Charging Period*.
- (b) **Demand Network Transfer Charge:**
€ 2.7812/MWh for *Metered Consumption Energy* transferred in the *Charging Period*.
- (c) **Demand System Services Charge:**
€ 10.9078/MWh for *Metered Consumption Energy* transferred in the *Charging Period*.

OTHER CONDITIONS

LOSSES: Demand TUoS charges for distribution connections maybe subject to adjustment by distribution loss factors (see Appendix 1).

TERMS: Terms and conditions set forth in the *Tariff Terms and Conditions* form part of this tariff schedule.

⁷ Metered Consumption Energy is defined later in Definitions and Interpretations.

TARIFF SCHEDULE GTS-T

Generation Transmission Service - Transmission Connections

CONDITIONS

- APPLICABLE TO:** *Generation Users* connected directly to the *Transmission System* at each *Grid Entry Point*.
- CHARGES:** Use of System Charges for service under Tariff Schedule GTS-T in any one *Charging Period* shall be the sum of the following:

GENERATION TUOS CHARGES

- (a) **Generation Network Location-Based Capacity Charge:**
The Network Location-Based Capacity Charge Rate, as specified in Schedule 1, for each *MW* of the *Maximum Export Capacity*⁸ at the *Entry Point*, as set forth in Schedule 1, for the *Charging Period*.
- (b) **Generation System Services Trip Charge:**
The Trip Charge Rates are contained in Schedule 2, Table A of this Statement of Charges. Charges for Trips will be calculated and applied for the *Charging Period* in accordance with the provisions of the Other System Charges Methodology Statement developed on an all-island basis by EirGrid in conjunction with SONI, based on Regulatory Authorities' harmonised decisions.
- (c) **Generation System Services Short Notice Declaration Charge:**
The Short Notice Declaration (SND) Charge Rates are contained in Schedule 2, Table A of this Statement of Charges. Charges for SNDs will be calculated and applied for the *Charging Period* in accordance with the provisions of the Other System Charges Methodology Statement developed on an all-island basis by EirGrid in conjunction with SONI, based on Regulatory Authorities' harmonised decisions.
- (d) **Generation System Services Generator Performance Incentive Charge:**
The Generator Performance Incentive (GPI) Charge Rates are contained in Schedule 2, Table B of this Statement of Charges. Charges for GPIs will be calculated and applied for the *Charging Period* in accordance with the provisions of the Other System Charges Methodology Statement developed on an all-island basis by EirGrid in conjunction with SONI, based on Regulatory Authorities' harmonised decisions.

CONDITIONS

- APPLICABLE TO:** *Demand Users* serving generators connected directly to the *Transmission System* at each *Grid Entry Point*.
- CHARGES:** Use of System Charges for import requirements in any one *Charging Period* shall be the sum of the following:

DEMAND TUOS CHARGES

- (e) **Demand Network Capacity Charge:**
€ 1,320.7355/MW for each *MW* of Charging Capacity in the *Charging Period*.
Where Charging Capacity is the lesser of:
- i) the *Maximum Import Capacity*, or

⁸ The Generation Network Location-Based Capacity Charge shall commence on the customer's Connection Date. For phases and extensions, this charge will commence on the date of first export of the phase or extension.

- ii) the greater of the *Minimum Charging Capacity* and the highest *Metered Consumption Demand* in the *Charging Period*.

Where the Minimum Charging Capacity is the greater of:

- i) 80% of the *Maximum Import Capacity*, or
 - ii) the *Customer's Maximum Import Capacity* less 4 MW
- (f) **Demand Network Unauthorised Usage Charge:**
€ 755.4961/MWh for *Metered Consumption Energy*⁹ transferred in excess of the *Maximum Import Capacity* in the *Charging Period*.
- (g) **Demand Network Transfer Charge:**
€ 2.4331/MWh for *Metered Consumption Energy* transferred in the *Charging Period*.
- (h) **Demand System Services Charge:**
€ 9.5429/MWh for *Metered Consumption Energy* transferred in the *Charging Period*.

OTHER CONDITIONS

LOSSES: As set forth in the Trading and Settlement Code *Transmission Loss Adjustment Factors* are applicable in the energy market. The Transmission Loss Adjustment Factor Schedule can be found on the [EirGrid website](#).

TERMS: Terms and conditions set forth in the *Tariff Terms and Conditions* form part of this tariff schedule.

⁹ Metered Consumption Energy is defined later in Definitions and Interpretations. Electricity consumed by directly connected transmission users is not adjusted to take account of distribution losses.

TARIFF SCHEDULE GTS-D

Generation Transmission Service - Distribution Connections

CONDITIONS

- APPLICABLE TO:** *Generation Users* indirectly connected to the *Transmission System* via the *Distribution System* at each *Entry Point*.
- CHARGES:** Use of System Charges for service under Tariff Schedule GTS-D in any one *Charging Period* shall be the sum of the following:

GENERATION TUOS CHARGES

- (a) **Generation Network Location-Based Capacity Charge:**
The Generation Network Location-Based Capacity Charge Rate, as specified in Schedule 1, for each *MW greater than "5" (five) MW* of the *Maximum Export Capacity*¹⁰ as set forth in Schedule 1, for the *Charging Period*. Where the *Maximum Export Capacity* is 5 (five) MW or less then the Generation Network Location-Based Capacity Charge Rate will be "0" (zero).
- (b) **Generation System Services Trip Charge:**
The Trip Charge Rates are contained in Schedule 2, Table A of this Statement of Charges. Charges for Trips will be calculated and applied for the *Charging Period* in accordance with the provisions of the Other System Charges Methodology Statement developed on an all-island basis by EirGrid in conjunction with SONI, based on Regulatory Authorities' harmonised decisions.
- (c) **Generation System Services Short Notice Declaration Charge:**
The Short Notice Declaration (SND) Charge Rates are contained in Schedule 2, Table A of this Statement of Charges. Charges for SNDs will be calculated and applied for the *Charging Period* in accordance with the provisions of the Other System Charges Methodology Statement developed on an all-island basis by EirGrid in conjunction with SONI, based on Regulatory Authorities' harmonised decisions.
- (d) **Generation System Services Generator Performance Incentive Charge:**
The Generator Performance Incentive (GPI) Charge Rates are contained in Schedule 2, Table B of this Statement of Charges. Charges for GPIs will be calculated and applied for the *Charging Period* in accordance with the provisions of the Other System Charges Methodology Statement developed on an all-island basis by EirGrid in conjunction with SONI, based on Regulatory Authorities' harmonised decisions.

CONDITIONS

- APPLICABLE TO:** *Demand Users* serving generators connected to the *Distribution System*.
- CHARGES:** Use of System Charges for import requirements in any one *Charging Period* shall be dependent on the Demand Transmission Service applicable to the demand associated with the distribution connected generator:

DEMAND TUOS CHARGES

Demand TUoS charges chargeable under either Tariff Schedule DTS-D1 (LEUs) or DTS-D1 (Non-LEUs) or DTS-D2 (LEUs) or DTS-D2 (Non-LEUs) as appropriate which is dependent on the characteristics of the demand associated with the distribution connected generator in accordance with the characteristics set out in the relevant Tariff Schedules.

¹⁰ The Generation Network Location-Based Capacity Charge shall commence on the customer's connection date. For phases and extensions, this charge will commence on the date of first export of the phase or extension.

OTHER CONDITIONS

- LOSSES:** As set forth in the Trading and Settlement Code *Transmission Loss Adjustment Factors* are applicable in the energy market. The Transmission Loss Adjustment Factor Schedule can be found on the [EirGrid website](#).
- TERMS:** Terms and conditions set forth in the *Tariff Terms and Conditions* form part of this tariff schedule.

TARIFF SCHEDULE ATS-T

Autoproducer Transmission Service - Transmission Connections

CONDITIONS

APPLICABLE TO: *Autoproducer Users* connected directly to the *Transmission System* at each *Grid Entry Point*.

CHARGES: Use of System Charges for service under Tariff Schedule ATS-T in any one *Charging Period* shall be set forth in this schedule except the following:

- i) Where the *Autoproducer User's Maximum Import Capacity* is greater than or equal to their *Maximum Export Capacity* then charge (a) will be set to "0" (zero).
- ii) Where the *Autoproducer User's Maximum Export Capacity* is greater than their *Maximum Import Capacity* then charge (e) will be set to "0" (zero).

Charges (b), (c), and (d) may be payable by an autoproducer, this depends on their generator characteristics

Charges (f), (g), and (h) are payable by all autoproducers

GENERATION TUOS CHARGES

(a) **Generation Network Location-Based Capacity Charge:**

The Network Location-Based Capacity Charge Rate, as specified in Schedule 1, for each *MW* of the *Maximum Export Capacity*¹¹ at the *Entry Point*, as set forth in Schedule 1, for the *Charging Period*.

(b) **Generation System Services Trip Charge:**

The Trip Charge Rates are contained in Schedule 2, Table A of this Statement of Charges. Charges for Trips will be calculated and applied for the *Charging Period* in accordance with the provisions of the Other System Charges Methodology Statement developed on an all-island basis by EirGrid in conjunction with SONI, based on Regulatory Authorities' harmonised decisions.

(c) **Generation System Services Short Notice Declaration Charge:**

The Short Notice Declaration (SND) Charge Rates are contained in Schedule 2, Table A of this Statement of Charges. Charges for SNDs will be calculated and applied for the *Charging Period* in accordance with the provisions of the Other System Charges Methodology Statement developed on an all-island basis by EirGrid in conjunction with SONI, based on Regulatory Authorities' harmonised decisions.

(d) **Generation System Services Generator Performance Incentive Charge:**

The Generator Performance Incentive (GPI) Charge Rates are contained in Schedule 2, Table B of this Statement of Charges. Charges for GPIs will be calculated and applied for the *Charging Period* in accordance with the provisions of the Other System Charges Methodology Statement developed on an all-island basis by EirGrid in conjunction with SONI, based on Regulatory Authorities' harmonised decisions.

DEMAND TUOS CHARGES

(e) **Demand Network Capacity Charge:**

€ 1,320.7355/MW for each *MW* of Charging Capacity in the *Charging Period*.

Where Charging Capacity is the lesser of:

¹¹ The Generation Network Location-Based Capacity Charge shall commence on the customer's Connection Date. For phases and extensions, this charge will commence on the date of first export of the phase or extension.

- i) the *Maximum Import Capacity*, or
- ii) the greater of the *Minimum Charging Capacity* and the highest *Metered Consumption Demand* in the *Charging Period*.

Where the *Minimum Charging Capacity* is the greater of:

- i) 80% of the *Maximum Import Capacity*, or
 - ii) the *Customer's Maximum Import Capacity* less 4 MW
- (f) **Demand Network Unauthorised Usage Charge:**
€ 755.4961/MWh for *Metered Consumption Energy* transferred in excess of the *Maximum Import Capacity* in the *Charging Period*.
- (g) **Demand Network Transfer Charge:**
€ 2.4331/MWh for *Metered Consumption Energy* transferred in the *Charging Period*.
- (h) **Demand System Services Charge:**
€ 9.5429/MWh for *Metered Consumption Energy* transferred in the *Charging Period*.

OTHER CONDITIONS

LOSSES: As set forth in the Trading and Settlement Code *Transmission Loss Adjustment Factors* are applicable in the energy market. The Transmission Loss Adjustment Factor Schedule can be found on the [EirGrid website](#).

METERED CONSUMPTION ENERGY:

Where an *Autoproducer User* exports to the system and imports from the system in the same *Settlement Period* the *Metered Consumption Energy*, for the purposes of charges (f), (g), and (h) shall be reduced by the *Metered Generation Energy* recorded if such exports are metered.

TERMS: Terms and conditions set forth in the *Tariff Terms and Conditions* form part of this tariff schedule.

TARIFF SCHEDULE ATS-D

Autoproducer Transmission Service - Distribution Connections

CONDITIONS

APPLICABLE TO: *Autoproducer Users* indirectly connected to the *Transmission System* via the *Distribution System* at each *Entry Point*.

CHARGES: Use of System Charges for service under Tariff Schedule ATS-D in any one *Charging Period* shall be set forth in this schedule except the following:

- i) Where the *Autoproducer User's Maximum Import Capacity* is greater than or equal to their *Maximum Export Capacity* then charge (a) will be set to "0" (zero).
- ii) Where the *Autoproducer User's Maximum Export Capacity* is greater than their *Maximum Import Capacity* then Demand Network Capacity Charge under charge (e) will be set to "0" (zero).

Charges (b), (c), and (d) may be payable by an autoproducer, this depends on their generator characteristics

GENERATION TUOS CHARGES

(a) Generation Network Location-Based Capacity Charge:

The Generation Network Location-Based Capacity Charge Rate, as specified in Schedule 1, for each *MW greater than "5" (five) MW* of the *Maximum Export Capacity*¹² as set forth in Schedule 1, for the *Charging Period*. Where the *Maximum Export Capacity* is 5 (five) MW or less then the Generation Network Location-Based Capacity Charge Rate will be "0" (zero).

(b) Generation System Services Trip Charge:

The Trip Charge Rates are contained in Schedule 2, Table A of this Statement of Charges. Charges for Trips will be calculated and applied for the *Charging Period* in accordance with the provisions of the Other System Charges Methodology Statement developed on an all-island basis by EirGrid in conjunction with SONI, based on Regulatory Authorities' harmonised decisions.

(c) Generation System Services Short Notice Declaration Charge:

The Short Notice Declaration (SND) Charge Rates are contained in Schedule 2, Table A of this Statement of Charges. Charges for SNDs will be calculated and applied for the *Charging Period* in accordance with the provisions of the Other System Charges Methodology Statement developed on an all-island basis by EirGrid in conjunction with SONI, based on Regulatory Authorities' harmonised decisions.

(d) Generation System Services Generator Performance Incentive Charge:

The Generator Performance Incentive (GPI) Charge Rates are contained in Schedule 2, Table B of this Statement of Charges. Charges for GPIs will be calculated and applied for the *Charging Period* in accordance with the provisions of the Other System Charges Methodology Statement developed on an all-island basis by EirGrid in conjunction with SONI, based on Regulatory Authorities' harmonised decisions.

DEMAND TUOS CHARGES

(e) Demand TUoS Charges

Demand TUoS charges chargeable under either Tariff Schedule DTS-D1 (LEUs) or DTS-D1 (Non-LEUs) as appropriate which is dependent on the characteristics of the demand associated with the

¹² The Generation Network Location-Based Capacity Charge shall commence on the customer's Connection Date. For phases and extensions, this charge will commence on the date of first export of the phase or extension.

distribution connected autoproducer in accordance with the characteristics set out in the relevant Tariff Schedules.

OTHER CONDITIONS

LOSSES: As set forth in the Trading and Settlement Code *Transmission Loss Adjustment Factors* are applicable in the energy market. The Transmission Loss Adjustment Factor Schedule can be found on the [EirGrid website](#).

METERED CONSUMPTION ENERGY:

Where an *Autoproducer User* exports to the system and imports from the system in the same *Settlement Period* the *Metered Consumption Energy*, for the purposes of charges Demand Network Transfer Charge and Demand System Services Charge, shall be reduced by the *Metered Generation Energy* where such exports are metered.

TERMS: Terms and conditions set forth in the *Tariff Terms and Conditions* form part of this tariff schedule.

TARIFF SCHEDULE APPLICATION FEES

Connection Offer Process Application Fees

CONDITIONS

APPLICABLE TO: All *Users* applying for a connection directly to the *Transmission System*.

Any transmission capacity increase request from a *User* shall be charged as per the fees below.

CHARGES: An initial fee of €7,000 (including VAT) or €2,000 (including VAT) for ECP-2 applicants is required to progress an application which is netted off the full application fee. The TSO shall only commence an application check when the initial fee is received unless otherwise agreed.

The remaining fee is dependent on the size (capacity) of the applicant's development and whether shallow connection works are involved in facilitating the capacity required. The TSO shall only commence processing a completed application when the remaining fee is received unless otherwise agreed.

CONNECTION OFFER PROCESS APPLICATION FEES¹³

Connection Offer Application Fees (excluding VAT)			
MIC & MEC Capacity Ranges	A	B	C
	Demand Capacity (MIC)	Generation Capacity (MEC)	Shallow Works (If required)
$0 \leq 11\text{kW}$	€0	0	€0
$> 11 \text{ kW} \leq 50 \text{ kW}$	€0	€795	€0
$> 50 \text{ kW} \leq 500 \text{ kW}$	€0	€1,623	€0
$> 500 \text{ kW} \leq 1 \text{ MW}$	€0	€9,216	€0
$> 1 \text{ MW} \leq 4 \text{ MW}$	€12,997	€18,880	€0
$> 4 \text{ MW} \leq 10 \text{ MW}$	€22,473	€19,105	€19,105
$> 10 \text{ MW} \leq 20 \text{ MW}$	€22,473	€34,464	€35,962
$> 20 \text{ MW} \leq 100 \text{ MW}$	€36,943	€49,502	€41,207
$> 100 \text{ MW}$	€50,588	€53,018	€46,881
Demand only: Fee = $A_{\text{MIC}} + C_{\text{MIC}} - D$			
Generation only: Fee = $B_{\text{MEC}} + C_{\text{MEC}} - D$			
Demand & Generation: Fee = $A_{\text{MIC}} + B_{\text{MEC}} + \text{MAX} [C_{\text{MEC}}, C_{\text{MIC}}] - D$			
Where D is the sum of the credits for pre-feasibility and advanced works studies still relevant. Determination of D will be calculated by EirGrid.			

TARIFF SCHEDULE MODIFICATION FEES
--

Connection Offer and Connection Agreement Modification Fees
--

CONDITIONS

APPLICABLE TO: All users that request a modification to a Connection Offer or Connection Agreement

CHARGES: The table below outlines the fees which are applicable to a given complexity of modification. The System Operators will determine the appropriate level of the modification fee based on the general principles set out in Appendix 2.

Modification Fee (excluding VAT)			
Level	Initial Deposit	Balance of Fee	Total Fee
Level 1	€899	€0	€899
Level 1.5	€899	€4,521	€5,421
Level 2	€899	€9,044	€9,943
Level 2.5	€899	€13,723	€14,622
Level 3	€899	€18,401	€19,300
Level 3.5	€899	€22,203	€23,102
Level 4	€899	€26,004	€26,903

TARIFF TERMS AND CONDITIONS

1 Definitions and Interpretations

Unless otherwise expressly provided in these *Tariff Terms and Conditions*, any definition of a word or expression in the *Act* shall apply to the use of such word or expression in these *Tariff Terms and Conditions*. Words or expressions in lower case Italics have the meaning attributed to such word or expression in the *Act*. In these *Tariff Terms and Conditions* the following terms shall have the following meanings:

Act means the Electricity Regulation Act, 1999, as amended.

Autoproducer User is a User who:

- (a) supplies a natural or legal person who consumes and generates electricity in a Single Premises, or on whose behalf another person generates electricity in the Single Premises where such generation is essentially used in that Single Premises or
supplies a natural or legal person who consumes and generates electricity in a Single Premises, or on whose behalf another person generates electricity in the Single Premises whereby the generated electricity is produced through a Combined Heat and Power process under a licence by CRU,
- (b) *EirGrid* shall provide service to under Tariff Schedules ATS-T or ATS-D as identified in the tariff schedule,
- (c) is a party to which such schedule is applicable; and meets all the eligibility and qualification requirements or pre-requisites set out in the Transmission Use of System Agreement, and
- (d) is obliged to execute and maintain a valid Transmission Use of System Agreement.

CRU means the Commission for Regulation of Utilities.

Charging Period means a period of time starting at 00:00 on the first day of each month and ending at the end of the 24th hour (23:59:59) on the last day of the same calendar month during which a *User* is supplied with service by *EirGrid*.

Connection Date means the date of completion of the proper implementation of the Commissioning Instructions, as defined in the Connection Agreement, in respect of every part of the Customer's Equipment, as defined in the Connection Agreement, to *EirGrid*'s satisfaction.

Customer means a *final customer* as defined in the *Act*. For the avoidance of doubt *Generation Users* and *Autoproducer Users* are considered a *Customer* for purposes of the application of demand related charges under Tariff Schedules GTS-T, GTS-D, ATS-T and ATS-D.

Day Hours are 08:00 to 23:00 hours inclusive on any day GMT Standard or GMT Summer Time as applicable.

Demand User is a person or party who:

- (a) *EirGrid* shall provide service to under Tariff Schedules DTS-T (LEUs), DTS-D1 (LEUs), DTS-D1 (Non-LEUs), DTS-D2 (LEUs) and DTS-D2 (Non-LEUs) as identified in the tariff schedule,
- (b) is a party to which such schedule is applicable; and meets all the eligibility and qualification requirements or pre-requisites set out in the Transmission Use of System Agreement for Suppliers, and

- (c) is obliged to execute and maintain a valid Transmission Use of System Agreement for Suppliers

Distribution Loss Factor has the meaning as in the Trading and Settlement Code.

DG10 is as defined in the DUoS tariff groups available on ESB Networks website (currently defined as a distribution 110kV maximum demand connection).

EirGrid is the holder of the Transmission System Operator licence granted to it by the CRU under section 14(1) (e) of the Act.

Entry Point means Connection Point as defined in the Connection Agreement.

Exit Point means Connection Point as defined in the Connection Agreement.

Generation Unit is any apparatus which produces electricity and for the purposes of applying the Generation System Services Trip Charge, shall include an entire CCGT installation or an entire Wind Farm Power Station, as defined in the Grid Code.

Generation User is a person or party who:

- (a) *EirGrid* shall provide service to under Tariff Schedules GTS-T or GTS-D as identified in the tariff schedule,
- (b) is a party to which such schedule is applicable; and meets all the eligibility and qualification requirements or pre-requisites set out in the Transmission Use of System Agreement, and
- (c) has executed and maintains a valid Transmission Use of System Agreement.

Generator Performance Incentive Charge is the charge as defined in the Other System Charges Methodology Statement.

Grid Entry Point is the point at which *electricity* is transferred from the *Generation User's* facility to the *transmission system* and where the *electricity*, so transferred, is effectively metered or estimated for application of charging under the applicable tariff schedule.

Grid Exit Point is the point at which *electricity* is transferred from the *transmission system* to the *distribution system* and where the *electricity* so transferred is effectively metered or estimated for application of charging under the applicable tariff schedule.

Interconnector: A HVDC electrical transmission system as a means for the bulk transmission of electrical power to or from the Transmission System or Other Transmission System to or from an External Transmission System.

kW means kilowatt.

kWh means kilowatt hour.

Large Energy User (LEU) is defined as a *User* in either DUoS tariff group DG7 or DG8 or DG9 or is connected to the 110kV network or is connected directly to the transmission system.

Maximum Export Capacity (MEC) is as defined in the Connection Agreement in MW or kW and where the value of such (in the Connection Agreement for a given *Entry Point*) is expressed in MVA or kVA then such value will be converted to MW or kW by a factor of 0.95 kW/kVA.

Maximum Import Capacity (MIC) is as defined in the Connection Agreement in MW or kW and where the value of such (in the Connection Agreement for a given *Exit Point*) is expressed in MVA or kVA then such value will be converted to MW or kW by a factor of 0.95 kW/kVA.

Metered Consumption Demand is the 30-minute interval measurement of electricity demand in *kW* or *MW* at the *Exit Point* for each *Customer* adjusted, where applicable, for distribution losses between the *Grid Exit Point* and the *Exit Point* by the applicable *Distribution Loss Factor*.

Metered Consumption Energy is the 30-minute interval measurement of electricity transferred in *kWh* or *MWh* at the *Grid Exit Point* that has been adjusted, where applicable, for distribution losses between the *Grid Exit Point* and the *Exit Point* by the applicable *Distribution Loss Factor*. Interval measurement may be actual interval metered quantities or metered quantities adjusted by consumption profile curves as set forth in the Trading and Settlement Code and or the Metering Code. Where metered quantities are not available, estimated data will be used until actual data is made available.

Metered Generation Demand is the 30-minute interval measurement of electricity demand in *kW* or *MW* at the *Entry Point*.

Metered Generation Energy is the 30-minute interval measurement of electricity transferred in *kWh* or *MWh* at the *Entry Point*. Where metered quantities are not available, estimated data will be used until actual data is made available.

MW means megawatt.

MWh means megawatt hour.

UR means the Utility Regulatory in Northern Ireland.

Night Hours are any hours that are not *Day Hours*.

Non-Large Energy User (Non-LEU) is defined as a *User* in DUoS tariff group DG1, DG2, DG3, DG4, DG5, DG5a, DG5b, DG6, DG6a or DG6b.

Other System Charges is the collective term for Trip Charges, Short Notice Declaration Charges and Generator Performance Incentive Charges.

Other System Charges Methodology Statement means such rules and or other terms and conditions in respect of charging for Other System Charges forming a part of the Statement of Charges for use of the transmission system as approved by the CRU.

Pounds sterling means the Currency of the United Kingdom.

Regulatory Authorities: means the Utility Regulator (UR) in Northern Ireland and the Commission for Regulation of Utilities (CRU) in Ireland and the term "Regulatory Authority" shall be construed accordingly to mean any one of them as the context admits or requires.

SEM means the Single Electricity Market which is the wholesale all island single electricity market.

Settlement Period is a 30 minute period beginning on each hour (XX:00:00) and each half hour (XX:30:00). There are 48 Settlement Periods in a calendar day. Where daylight savings time has been enacted the day's Settlement Periods shall be reduced to 46 to account for one less hour in the day. Where standard time has been restored the day's Settlement Periods shall be increased to 50 to account for one additional hour in the day.

Short Notice Declaration Charge is the charge as defined in the Other System Charges Methodology Statement and is also referred to as the SND Charge.

SONI means the System Operator in Northern Ireland and is the holder of the Licence to Participate in the Transmission of Electricity granted by the UR under the Electricity (Northern Ireland) Order 1992.

Tariff Terms and Conditions means such rules and or other terms and conditions in respect of transmission use of system forming a part of the Statement of Charges for use of the transmission system as approved by the *CRU* under section 36 of the *Act*.

Trading Period is as is defined in the Trading and Settlement Code.

Transmission Loss Adjustment Factor means a factor derived for the purpose of apportioning responsibility for transmission losses amongst Users of the transmission system which is used to adjust metered quantities during energy market settlement.

Transmission Service means the service provided by EirGrid to Users in respect of connection to and use of the transmission system.

Transmission System; as defined in the EirGrid Grid Code.

Trip Charge is the charge as defined in the Other System Charges Methodology Statement.

User is as defined in the relevant Use of System Agreement.

2 Metering and Charging

Estimation in lieu of actual metering data

EirGrid shall make all reasonable efforts to ensure actual metering data is used to determine Transmission Use of System Charges, however should metering data be unavailable to *EirGrid* or the data provider, estimated data will be used. Recalculation of charges will occur as per Resettlement of Charges described below. The above provisions will also apply to any data provided in aggregate form using estimated data, in whole or in part, from the Meter Registration System Operator or the Single Electricity Market Operator.

Resettlement of charges

Where metering data is incorrect or where estimates have been used or where standing data provided to *EirGrid* has been found to be incorrect, *EirGrid* will use reasonable endeavours to re-bill this account with actual data in the month proceeding the bill month. Where an account is metered by the ESB Distribution System Operator and updated meter or standing data has been provided to *EirGrid* by MRSO, *EirGrid* will carry out resettlement in respect of the account affected by Month + 13 Months pursuant to the Trading and Settlement Code.

The *EirGrid* also may charge a Demand User for Transmission Use of System Charges calculated by reference to electricity discovered or reasonably and properly assessed to have been consumed by a Customer while a Customer of the Demand User but not recorded at the time of consumption for whatever reason.

Pro-ration of the Demand Network Capacity Charge Rate

The Demand Network Capacity Charge Rate under Tariff Schedules GTS-T, GTS-D, ATS-T, ATS-D, DTS-T (LEUs), DTS-D1 (LEUs) and DTS-D1 (Non-LEUs) will be prorated based on the number of effective days in the *Charging Period* where:

- (a) A *Customer* has switched between *Users* within a *Charging Period*.
- (b) A *User's* new *Customer* is connected within a *Charging Period*.
- (c) A *User's* existing *Customer* is disconnected and or has ceased its requirements for service within a *Charging Period*.
- (d) The *Maximum Import Capacity* value for a *Customer* has been revised within a *Charging Period*. Separate calculations will be performed to determine *Charging Capacity* (as defined in the applicable tariff schedule) for each *MIC* value's effective period and multiplied by the pro-rated rate. The Unauthorised Usage charge will be similarly calculated based on each *MIC* value's effective periods.

Changes to Maximum Import Capacity

Revisions to *Maximum Import Capacity* values which occur during a *Charging Period* will be made effective for the charging purposes on the day for the full day.

This will apply in all circumstances except for an *MIC* value reduction in respect of a transmission connected *Customer* in which case the change will be made effective for the charging purposes for the 1st full day of the next *Charging Period* following the completion of an 18 month notification period.

Proration of the Generation Network Capacity Charge Rate

The Generation Network Capacity Charge Rate under Tariff Schedules GTS-T, GTS-D, ATS-T, and ATS-D will be prorated based on the number of effective days in the *Charging Period* where:

- (a) A *User* is connected within a *Charging Period*.
- (b) A *User* is disconnected and or has ceased its requirements for service within a *Charging Period*.

Changes to Maximum Export Capacity

Revisions to *Maximum Export Capacity* values which occur during a *Charging Period* will be made effective for charging purposes on the day for the full day.

SCHEDULE 1 - GENERATION LOCATION BASED CHARGES

Station	Generation Facility	Contracted Maximum Export Capacity (MW)	Chargeable Maximum Export Capacity (MW)	Equivalent €/kW/year	Network Capacity Charge Rate €/MW/month
Ireland Transmission Connected Conventional					
Aghada/Longpoint	Aghada/Longpoint	904	904	€6.6838	€556.9833
Ardnacrusha Hydro	Ardnacrusha	86	86	€6.9845	€582.0417
Aughinish	Alumina CHP	130	130	€6.9902	€582.5167
Irishtown	Dublin Bay Power	415	415	€5.9647	€497.0583
Cushaling	Edenderry Peaking	116	116	€6.6338	€552.8167
Cushaling	Edenderry Power	121.5	121.5	€6.6341	€552.8417
Cathaleen's Fall	Cathaleens Fall	45	45	€6.4237	€535.3083
Cliff	Cliff	20	20	€6.4237	€535.3083
Glanagow	Whitegen	445	445	€6.6735	€556.1250
Great Island	Great Island	464	464	€5.6739	€472.8250
Huntstown	Huntstown 1	352	352	€5.8791	€489.9250
Corduff	Huntstown 2	412	412	€5.8498	€487.4833
Carrigadrohid	Lee Carrigadrohid	8	8	€5.2726	€439.3833
Inniscarra	Lee Inniscarra	19	19	€5.9440	€495.3333
Lanesboro	Lough Ree	94	94	€5.6164	€468.0333
Pollaphuca	Liffey	34.18	34.18	€5.2237	€435.3083
Moneypoint	Moneypoint	862.5	862.5	€7.4790	€623.2500
North Wall	North Wall (5)	109	109	€5.9322	€494.3500

Station	Generation Facility	Contracted Maximum Export Capacity (MW)	Chargeable Maximum Export Capacity (MW)	Equivalent €/kW/year	Network Capacity Charge Rate €/MW/month
Shellybanks	Poolbeg	460	460	€5.9534	€496.1167
Derryiron	Rhode	103.6	103.6	€5.8681	€489.0083
Shannonbridge	West Offaly	141	141	€5.8376	€486.4667
Tarbert	Tarbert	108	108	€6.5919	€549.3250
Tarbert	Tarbert	481.4	481.4	€6.5888	€549.0667
Tawnaghmore	Tawnaghmore Peaking Plant	104	104	€8.8241	€735.3417
Turlough Hill	Turlough Hill	292	292	€5.8582	€488.1833
Tynagh	Tynagh	404	404	€6.2612	€521.7667
Ireland Transmission Connected Wind					
Station	Name				
Athea	Athea	34.35	34.35	€11.5726	€964.3833
Athea	Beananaspuck & Toberatoreen	23.15	23.15	€11.5726	€964.3833
Ballywater	Ballywater	42	42	€5.1363	€428.0250
Boggeragh	Boggeragh 1	57	57	€10.2575	€854.7917
Boggeragh	Boggeragh 2	65.7	65.7	€10.2575	€854.7917
Booltiagh	Booltiagh	31.45	31.45	€8.1677	€680.6417
Castledockrell	Castledockrell	41.4	41.4	€5.2244	€435.3667
Clahane	Clahane	51.6	51.6	€8.0563	€671.3583
Cloghboola	Knocknagashel Wind	46	46	€11.5726	€964.3833

Station	Generation Facility	Contracted Maximum Export Capacity (MW)	Chargeable Maximum Export Capacity (MW)	Equivalent €/kW/year	Network Capacity Charge Rate €/MW/month
	(Cloghboola (1))				
Clogher	Croaghonagh	66.1	66.1	€8.9197	€743.3083
Coomagearlahy	Coomagearlahy	81	81	€16.1305	€1,344.2083
Coomataggart	Grousemount WF	114.2	114.2	€13.2846	€1,107.0500
Cordal	Cordal	89.85	89.85	€9.4805	€790.0417
Cunghill	Kingsmountain	34.8	34.8	€7.1053	€592.1083
Derrybrien	Derrybrien	59.5	59.5	€6.3253	€527.1083
Dromada	Dromada	28.5	28.5	€11.5726	€964.3833
Dunmanway	Carrigdangan (Was Barnidivane)	54.3	54.3	€8.7834	€731.9500
Garrow	Coomacheo	59.225	59.225	€16.1303	€1,344.1917
Garvagh	Garvagh	48	48	€5.7697	€480.8083
Glanlee	Glanlee	29.8	29.8	€16.1305	€1,344.2083
Golagh	Golagh	15	15	€8.9302	€744.1833
Kill Hill	Kill Hill	36	36	€6.7506	€562.5500
Kilpadogge	Kelwin	41.6	41.6	€6.9472	€578.9333
Knockacummer	Knockacummer	100	100	€11.9404	€995.0333
Knockranny	Knockalough	33.6	33.6	€5.7528	€479.4000
Lisheen	Lisheen	59	59	€6.7892	€565.7667
Meentycat	Meentycat	84.96	84.96	€10.4566	€871.3833
Moneypoint WF	Moneypoint WF	17.25	17.25	€7.4734	€622.7833

Station	Generation Facility	Contracted Maximum Export Capacity (MW)	Chargeable Maximum Export Capacity (MW)	Equivalent €/kW/year	Network Capacity Charge Rate €/MW/month
Mountlucas	Mountlucas	79.2	79.2	€7.1877	€598.9750
Mulreavy	Mulreavy	95.25	95.25	€8.9184	€743.2000
Srahnakilly	Oweninney Power	89	89	€8.2997	€691.6417
Ratrussan	Mountain Lodge	30.62	30.62	€4.7855	€398.7917
Ratrussan	Ratrussan	48	48	€4.7855	€398.7917
Sliabh Bawn	Sliabh Bawn	58	58	€5.4652	€455.4333
Slievecallan	Boolinrudda	44.515	44.515	€7.5966	€633.0500
Slievecallan	Knockalassa	26.875	26.875	€7.5966	€633.0500
Uggool	Seecon	105	105	€5.7528	€479.4000
Uggool	Uggool	64	64	€5.7528	€479.4000
Woodhouse	Woodhouse	20	20	€5.6525	€471.0417
Ireland Distribution Connected					
Ardnacrusha	Knockastanna	7.5	2.5	€6.9849	€582.0750
Ardnagappary	Cronalaght 2	17.96	12.96	€6.7253	€560.4417
Arklow	Arklow Bank	25.2	20.2	€5.3094	€442.4500
Arklow	Ballycumber	18	13	€5.3094	€442.4500
Arklow	Raheenleagh	35.2	30.2	€5.3094	€442.4500
Ballybeg	Millvale PV	8	3	€5.1118	€425.9833
Ballylickey	Ballybane	45.45	40.45	€8.7834	€731.9500

Station	Generation Facility	Contracted Maximum Export Capacity (MW)	Chargeable Maximum Export Capacity (MW)	Equivalent €/kW/year	Network Capacity Charge Rate €/MW/month
Ballylickey	Kealkil	8.5	3.5	€8.7834	€731.9500
Baltrasna	Hilltown PV	10	5	€5.3692	€447.4333
Baltrasna	Painestown Hill Solar Farm	9.99	4.99	€5.6028	€466.9000
Bandon	Garranereagh	8.75	3.75	€7.4413	€620.1083
Barrymore	Barranafaddock	32.4	27.4	€6.8054	€567.1167
Barrymore T	Dairygold, Mitchelstown	8.55	3.55	€6.8054	€567.1167
Bellacorick	Bellacorick	6.45	1.45	€8.2997	€691.6417
Binbane	Clogheravaddy	9.2	4.2	€5.9817	€498.4750
Binbane	Corkermore 1	9.99	4.99	€5.9817	€498.4750
Binbane	Killin Hill	6	1	€5.9817	€498.4750
Binbane	Loughderryduff	7.65	2.65	€5.9817	€498.4750
Binbane	Meenachullalan	11.9	6.9	€5.9817	€498.4750
Boggeragh	Carrigcannon	20	15	€10.2575	€854.7917
Boggeragh	Esk	23.35	18.35	€10.2575	€854.7917
Booltiagh	Boolynagleragh	36.98	31.98	€8.1677	€680.6417
Booltiagh	Cahermurphy	6	1	€8.1677	€680.6417
Booltiagh	Glenmore	32	27	€8.1677	€680.6417
Booltiagh	Lissycasey	13.399	8.399	€8.1677	€680.6417

Station	Generation Facility	Contracted Maximum Export Capacity (MW)	Chargeable Maximum Export Capacity (MW)	Equivalent €/kW/year	Network Capacity Charge Rate €/MW/month
Cahir	Ballyfowloo Solar Farm	8	3	€6.7176	€559.8000
Carlow	Gortahile	21	16	€5.2236	€435.3000
Castlebar	Derrynadivva (prev. Raheen Bar 2)	15.3	10.3	€6.8466	€570.5500
Castlebar	Raheen Barr 1	18.7	13.7	€6.8466	€570.5500
Cathaleen's Fall	Spaddan	17.5	12.5	€6.4240	€535.3333
Cauteen	Cappagh White B	13.18	8.18	€7.8917	€657.6417
Cauteen	Cappawhite A	52	47	€7.8917	€657.6417
Cauteen	Garracummer	37.9	32.9	€7.8917	€657.6417
Cauteen	Glencarbry	33	28	€7.8917	€657.6417
Cauteen	Glenough	33	28	€7.8917	€657.6417
Cauteen	Holyford	9	4	€7.8917	€657.6417
Charleville	Knocknatallig	18.3	13.3	€7.1548	€596.2333
Charleville	Castlepook	33.1	28.1	€7.1548	€596.2333
Cloghboola	Cloghanaleskirt	12.55	7.55	€11.5726	€964.3833
Cloghboola	Glanaruddery 1	20	15	€11.5726	€964.3833
Cloghboola	Glanaruddery 2	12	7	€11.5726	€964.3833
Cloghboola	Glantaunyalkeen	10	5	€11.5726	€964.3833
Coomataggart	Cleanrath	42.64	37.64	€13.2846	€1,107.0500
Cordal	Coollegrean	18.5	13.5	€9.4805	€790.0417

Station	Generation Facility	Contracted Maximum Export Capacity (MW)	Chargeable Maximum Export Capacity (MW)	Equivalent €/kW/year	Network Capacity Charge Rate €/MW/month
Cordal	Scartaglen	39.25	34.25	€9.4805	€790.0417
Corderry	Altagowlan	7.65	2.65	€5.7697	€480.8083
Corderry	Black Banks 2	6.8	1.8	€5.7697	€480.8083
Corderry	Tullynamoyle 1	9	4	€5.7697	€480.8083
Corderry	Tullynamoyle 2	10.225	5.225	€5.7697	€480.8083
Corderry	Tullynamoyle 3	13.58	8.58	€5.7697	€480.8083
Lodgewood	Ballycadden	24.212	19.212	€5.2244	€435.3667
Lodgewood	Gibbet Hill	14.8	9.8	€5.2244	€435.3667
Lodgewood	Knocknalour	8.95	3.95	€5.2244	€435.3667
Dallow	Meenwaun WF	9.999	4.999	€5.8424	€486.8667
Dalton	Magheramore	40.8	35.8	€6.4989	€541.5750
Doon	Horespasture Solar Farm	8	3	€6.4561	€538.0083
Drybridge	Meath Waste-to-Energy	20.5	15.5	€5.2130	€434.4167
Dundalk	Grove Hill	16.1	11.1	€5.0562	€421.3500
Dunfirth	Hortland PV	14	9	€6.2388	€519.9000
Dunmanway	Carbery Milk Products CHP	6	1	€8.7834	€731.9500
Dunmanway	Coomatallin	5.95	0.95	€8.7834	€731.9500
Dunmanway	Killaveenoge	24.8	19.8	€8.7834	€731.9500
Dunmanway	Milane Hill	5.94	0.94	€8.7834	€731.9500

Station	Generation Facility	Contracted Maximum Export Capacity (MW)	Chargeable Maximum Export Capacity (MW)	Equivalent €/kW/year	Network Capacity Charge Rate €/MW/month
Dunmanway	Knockeenbui	13.8	8.8	€8.7834	€731.9500
Garrow	Caherdowney	10	5	€16.1303	€1,344.1917
Garvagh	Derrysallagh Wind Farm	34	29	€5.7697	€480.8083
Glenlara	Dromdeeven	27	22	€7.1548	€596.2333
Glenlara	Mauricetown	13.8	8.8	€7.1548	€596.2333
Glenlara	Taurbeg	26	21	€11.9404	€995.0333
Glenree	Black Lough	12.5	7.5	€7.7540	€646.1667
Glenree	Bunnyconellan	28	23	€7.7540	€646.1667
Glenree	Carrowleagh	36.8	31.8	€7.7540	€646.1667
Ikerrin	Monaincha Bog	35.95	30.95	€5.7404	€478.3667
Inchicore	Guinness CHP	8.075	3.075	€6.0836	€506.9667
Killonan	Cureeny (Upperchurch)	94	89	€7.0739	€589.4917
Kilpaddoge	Leanamore	18	13	€6.9472	€578.9333
Kilteel	Arthurstown	9.78	4.78	€5.9944	€499.5333
Knockearagh	Gneeves	9.35	4.35	€8.8185	€734.8750
Knockearagh	WEDcross & Adambridge Mfrs.	7.5	2.5	€8.8185	€734.8750
Lanesboro	Cleggill Solar Park	8	3	€5.6164	€468.0333
Letterkenny	Cark	15	10	€10.6526	€887.7167
Letterkenny	Culliagh	11.88	6.88	€10.6526	€887.7167

Station	Generation Facility	Contracted Maximum Export Capacity (MW)	Chargeable Maximum Export Capacity (MW)	Equivalent €/kW/year	Network Capacity Charge Rate €/MW/month
Lisheen	Bruckana	39.6	34.6	€6.7892	€565.7667
Macroom	Bawnmore	24	19	€5.2246	€435.3833
Meath Hill	Bailie Foods	5.21	0.21	€5.1050	€425.4167
Meath Hill	Gartnaneane	10.5	5.5	€5.1050	€425.4167
Meath Hill	Mullananalt	7.5	2.5	€5.1050	€425.4167
Meath Hill	Raragh 2	11.5	6.5	€5.1050	€425.4167
Meath Hill	Teevurcher	9	4	€5.1050	€425.4167
Meath Hill	Taghart	23.06	18.06	€5.1050	€425.4167
Moy	Lackan	6	1	€8.1802	€681.6833
Oughtragh	Knockaneden	9	4	€8.1831	€681.9250
Portlaoise	Lisdowney	9.2	4.2	€6.0827	€506.8917
Rathkeale	Grouse Lodge	15	10	€6.9939	€582.8250
Rathkeale	Rathcahill	12.5	7.5	€6.9939	€582.8250
Reamore	Knocknagoum	44.35	39.35	€7.8650	€655.4167
Reamore	Muingnaminnane	15.3	10.3	€7.8650	€655.4167
Ringsend	Dublin Waste to Energy Facility	72	67	€6.0698	€505.8167
Salthill	Leitir Guingaid & Doire Chrith1 & 2	40.9	35.9	€5.7528	€479.4000
Shankill	Carrickallen Wind Farm	22	17	€4.6980	€391.5000

Station	Generation Facility	Contracted Maximum Export Capacity (MW)	Chargeable Maximum Export Capacity (MW)	Equivalent €/kW/year	Network Capacity Charge Rate €/MW/month
Sligo	Carrickeeney	7.65	2.65	€5.6834	€473.6167
Sligo	Faughary	6	1	€5.6834	€473.6167
Somerset	Sonnagh Old	7.65	2.65	€5.8073	€483.9417
Sorne Hill	Flughland	9.2	4.2	€10.6539	€887.8250
Sorne Hill	Sorne Hill	38.9	33.9	€10.6539	€887.8250
Tawnaghmore Wind	Killala	19.2	14.2	€8.8248	€735.4000
Tawnaghmore Wind	Killala Phase 2	10.8	5.8	€8.8248	€735.4000
Thurles	An Cnoc	11.5	6.5	€6.7891	€565.7583
Thurles	Ballybay	13.8	8.8	€6.7891	€565.7583
Thurles	Foyle	9.6	4.6	€6.7891	€565.7583
Tonroe	Largan Hill	5.94	0.94	€5.9863	€498.8583
Tralee	Ballincollig Hill	15	10	€7.8650	€655.4167
Tralee	Mount Eagle	5.1	0.1	€7.8650	€655.4167
Tralee	Tursillagh	15	10	€7.8650	€655.4167
Tralee	Tursillagh	6.8	1.8	€7.8650	€655.4167
Trien	Knockawarriga	29.1	24.1	€8.1884	€682.3667
Trien	Tournafulla 1	7.5	2.5	€8.1884	€682.3667
Trien	Tournafulla 2	17.2	12.2	€11.5726	€964.3833
Trillick	Beam Hill	14	9	€10.6538	€887.8167

Station	Generation Facility	Contracted Maximum Export Capacity (MW)	Chargeable Maximum Export Capacity (MW)	Equivalent €/kW/year	Network Capacity Charge Rate €/MW/month
Trillick	Drumlough Hill 2	9.99	4.99	€10.6538	€887.8167
Trillick	Meenaward	6.9	1.9	€10.6538	€887.8167
Tullabrack	Moanmore 1	12.6	7.6	€7.6711	€639.2583
Tullabrack	Tullabrack 1	13.8	8.8	€7.6711	€639.2583
Waterford	Ballymartin	14.28	9.28	€5.8805	€490.0417
Wexford	Carnsore	11.9	6.9	€4.8350	€402.9167
Wexford	Richfield	27	22	€4.8350	€402.9167
Wexford	Blusheens Solar park	7.98	2.98	€4.8350	€402.9167

The tariffs approved by the RAs are slightly lower than those published for comments on 09/07/21. This was due to a minor reduction in allowed revenue, update of exchange rate and some minor updates to MECs.

Schedule 1 provides TUoS tariffs for existing generators connected to the transmission system and generators connected to the distribution system which have contracted Maximum Export Capacities above 5MW. Schedule 1 also provides TUoS tariffs for new generators expected to connect to the transmission or distribution system in the 2021/2022 tariff period. If any new generators connect to the system that are not listed above, tariffs for such generators will be published at a later date following approval by the CRU.

SCHEDULE 2 – OTHER SYSTEM CHARGES

The following tables set out the charge rates and parameters for Other System Charges from the 1st October 2021. The charge rates and parameters should be considered along with the Other System Charges Methodology Statement.

Table A – Trip & Short Notice Declaration Charge Parameters & Rates¹⁴

Trip	
Direct Trip Rate of MW Loss	15 MW/s
Fast Wind Down Rate of MW Loss	3 MW/s
Slow Wind Down Rate of MW Loss	1 MW/s
Direct Trip Charge Rate (Rates For Units With a QEX)	€2,249
Fast Wind Down Charge Rate (Rates For Units With a QEX)	€1,687
Slow Wind Down Charge Rate (Rates For Units With a QEX)	€1,125
Direct Trip Charge Rate (Rates For Units Without a QEX)	€4,498
Fast Wind Down Charge Rate (Rates For Units Without a QEX)	€3,373
Slow Wind Down Charge Rate (Rates For Units Without a QEX)	€2,250
Direct Trip Constant	0.01
Fast Wind Down Constant	0.009
Slow Wind Down Constant	0.008
Trip MW Loss Threshold	100 MW
Short Notice Declarations	
SND Time Minimum	5 min
SND Time Medium	20 min
SND Time Zero	480 min
SND Powering Factor	-0.3
SND Charge Rate (Rates For Units With a QEX)	€39 / MW
SND Charge Rate (Rates For Units Without a QEX)	€78 / MW
SND Threshold	15 MW
Time Window for Chargeable SNDs	60 min

Table B – Generator Performance Incentive Charge Parameters & Rates¹⁵

¹⁴ [SEMC Decision Paper on the Other System Charges 2021-22.pdf](#)

Generator Performance Incentive Charge Parameters & Rates	
Declaration Based Charges & Constants	
Minimum Generation	€1.34/MWh
Max Starts in 24 hour period	€0.00/MWh
Minimum On Time	€0.00/MWh
Reactive Power Leading	€0.32/MWh
Reactive Power Lagging	€0.32/MWh
Governor Droop	€0.32/MWh
Primary Operating Reserve	€0.55/MWh
Secondary Operating Reserve	€0.13/MWh
Tertiary Operating Reserve 1	€0.13/MWh
Tertiary Operating Reserve 2	€0.13/MWh
Secondary Fuel Availability	€0.03/MWh
Late Declaration Notice Time	480 min
Event Based Charges & Constants	
Loading Rate	€0.00MWh
Loading Rate Factor 1	60 min
Loading Rate Factor 2	24
Loading Rate Tolerance	110%
De-Loading Rate	€0.00MWh
De-Loading Rate Factor 1	60 min
De-Loading Rate Factor 2	24
De-Loading Rate Tolerance	110%
Early Synchronisation	€0.00MWh
Early Synchronous Tolerance	15 min
Early Synchronous Factor	60 min
Late Synchronisation	€0.00MWh
Late Synchronous Tolerance	5 min
Late Synchronous Factor	55 min
Secondary Fuel Availability Factor	0.9

¹⁵ SEMC Decision Paper on the Other System Charges 2021-22.pdf

APPENDIX 1: DISTRIBUTION LOSS FACTORS

A number of the tariffs outlined in the Tariff Schedules are charged based on *Metered Consumption Energy*, where applicable this energy has been adjusted for distribution losses. For convenience this appendix has been provided in order to illustrate Transmission Use of System Charges which shall be charged to users connected to the distribution system.

Table 1 below outlines the distribution loss factors which shall apply to users on tariff schedules DTS-D1 (LEUs), DTS-D1 (Non-LEUs), DTS-D2 (LEUs) and DTS-D2 (Non-LEUs) during day and night hours.

Table 1: Distribution Loss Factors					
	Time	Voltage level at which the user is connected			
		110kV or higher	38kV	MV	LV
2021/2022 Distribution Loss Adjustment Factors	Day	1.000	1.021	1.038	1.092
	Night	1.000	1.017	1.032	1.076

Tables 2 and 3 below outline the tariffs which shall apply to users on tariff schedules DTS-D1 (LEUs), DTS-D1 (Non-LEUs), DTS-D2 (LEUs) and DTS-D2 (Non-LEUs) during day and night hours, taking into account the relevant distribution loss factor. The charges have been calculated by multiplying the relevant tariffs, which are charged based on *Metered Consumption Energy*, by the appropriate distribution loss factor. Distribution users will be charged the tariffs below for each MWh of energy consumed. Users on tariff schedules DTS-D1 (LEUs) or DTS-D1 (Non-LEUs) will also pay the Network Capacity Charge as outlined in the DTS-D1 (LEUs) or DTS-D1 (Non-LEUs) schedules.

Table 2: Tariffs for Large Energy Users on Schedules DTS - D1 & DTS - D2 with Distribution Loss Factors applied				
	Time	Voltage level at which the user is connected		
		110kV or higher	38kV	MV
2021/2022 Distribution Loss Adjustment Factors	Day	1.000	1.021	1.038
	Night	1.000	1.017	1.032
Network Transfer Charge (€/MWh)	Day	2.4331	2.4842	2.5256
	Night	2.4331	2.4745	2.5110
System Services Charge (€/MWh)	Day	9.5429	9.7433	9.9055
	Night	9.5429	9.7051	9.8483
Network Capacity Charge (€/MWh)*	Day	5.1655	5.2740	5.3618

* €/MWh Network Capacity Charge is only applicable to DTS-D2 customers

Table 3: Tariffs for non Large Energy Users on Schedules DTS - D1 & DTS - D2 with Distribution Loss Factors applied		
		Voltage level at which the user is connected
	Time	LV
2021/2022 Distribution Loss Adjustment Factors	Day	1.092
	Night	1.076
Network Transfer Charge (€/MWh)	Day	3.0370
	Night	2.9925
System Services Charge (€/MWh)	Day	11.9113
	Night	11.7368
Network Capacity Charge (€/MWh)*	Day	6.4475
* €/MWh Network Capacity Charge is only applicable to DTS-D2 customers		

APPENDIX 2: TYPES OF MODIFICATIONS AND ASSOCIATED LEVELS

For more information on the rules related to processing modification requests please see CRU documents on [Modification Fees for Connection Offers, March 2013](#).

Table 4 – General table of chargeable modifications ¹⁶

Basic Type	Types of Modifications	Level	Main Driver
Name Change	Applicant Name Change/Change of Legal Entity	1	Commercial
Application Data for applicant in queue – second and subsequent changes	Where an application has been submitted, the first such change will be processed at no charge and a level 1 will apply thereafter.	1	Commercial
Firm or non-firm	Change in choice of a firm or non-firm/firm offer where no shared shallow works	1	Commercial
	Change in choice of a firm or non-firm/firm offer where shared shallow works	2.5	Construction and Commercial
Longstop Dates	Change to longstop dates where allowed	1.5	Technical and Commercial
Metering	Change to metering arrangements	1.5	Construction and Commercial
Merger	Merging projects with no significant expected change to works, charges or bonding arrangements (note 1)	1.5	Commercial
	Merging projects with no significant expected change to shallow works (note 1)	2.5	Tech Studies
	Merging projects with significant expected change to shallow works	4	All
Splitting	Splitting projects with no significant expected change to works, charges or bonding arrangements (note 1)	1.5	Commercial
	Splitting projects with no significant expected change to shallow works but impact on charges or bonding (note 1)	2	Tech Studies
	Splitting projects with significant expected change to shallow works (note 1)	4	All
Relocation	Capacity Relocation with no significant expected change to shallow works (note 1). This includes where a customer relocates capacity behind the connection point.	1.5	Tech Studies
	Capacity Relocation which only reduces the connecting circuit length	2	All
	Capacity Relocation with significant expected change to shallow works	4	All
MEC Change	Decrease in MEC with no significant expected change to shallow works (note 1)	1.5	Commercial

¹⁶ Table 5 covers changes to specific data in particular

Basic Type	Types of Modifications	Level	Main Driver
	Decrease in MEC with significant expected change to shallow works	4	All
	Increase in MEC	Per new application fees ¹⁷	All
MIC Change	Decrease in MIC with no significant expected change to shallow works (note 1)	1 ¹⁸	Commercial
	Increase in MIC where no studies required - typically for a generator seeking a MIC increase less than 4MW and where MEC is greater than twice the MIC	1.5	All
	Decrease in MIC with significant expected change to shallow works	4	Commercial
	Increase in MIC where studies required	Per new application fees ¹²	All
Change to overhead or underground cable (See note 3 below)	Change from overhead line to underground cable or vice versa for connection method with no significant expected additional change to shallow works (note 1)	1.5	Tech Studies
	Change from overhead line to underground cable or vice versa for connection method with significant potential additional change to shallow works	4	All
Phasing	Phasing legacy projects (no impact on connection works timeline)	1.5	Commercial
	Phasing Projects as per COPP ruleset	2	Construction and Commercial
Extension to term of contract	Extension to term of contract with no significant expected change to shallow or deep Transmission works (note 2)	1.5	Commercial
	Extension to term of contract with expected change to deep Transmission works but no expected significant changes to shallow works	3	Technical and Commercial
	Extension to term of contract with significant expected change to shallow works	4	All
	Extension to term of contract with expected significant change to shallow and deep Transmission works	Per new application fees ¹²	All
Contestability	Change to contestability decision where allowed	2	Construction and Commercial
RTUs	Change in number of RTU devices	2	Construction and Commercial

¹⁷ See fees for applications in Tariff Schedules COP, GPA COP and Modification Fees of this Statement or refer to www.esb.ie/esbnetworks for ESB policy

¹⁸ There will be no charge if part of first change to specific or assumed data – whichever the original offer was based on.

Basic Type	Types of Modifications	Level	Main Driver
Overhaul/refurbishing a generator	Changes made to a connected generator due to overhaul or refurbishing	2.5	All
Change to technology type	Change to technology type where assessment does not require additional studies ¹⁹	1.5	Commercial
	Change to technology type where assessment requires additional studies	2.5	Commercial and Technical
	Change to technology type where assessment requires additional studies and likely to require significant changes to shallow works	4	All
Temporary Connection	Temporary Connections	4	All

Notes on Table 4 above

1. ‘Significant expected change’ means where the System Operators believe that the modification requested has a material impact on the connection method that was originally offered to the customer (beyond the specific change requested) and therefore is likely to affect the connection charge. Assets chargeable to the customer are as set out in the Quotation letter (DSO customers) or Offer Letter (TSO customers). Any changes to these assets would be considered significant. Primary examples of this would be where one or more of the following is likely to be changed:

Shallow Works (TSO & DSO)
Number or size of connecting stations
Number of circuits and associated terminations
Number of couplers in a connecting station
Length, type or rating of the circuit(s)
Number or rating of transformers
Number or rating of bays
Increased busbar rating
The modification requested causes changes to the asset sharing arrangements or other Connection Method changes to another connecting or connected customer
Requirements to introduce bonding arrangements to cover potential stranded assets
Deep reinforcement (DSO)
Changes in circuit reinforcement requirements
Changes in station reinforcement requirements
Changes in protection requirements

These types of changes impact on the works, costs, lead times and legal assumptions contained in the original connection offer and therefore require significant reassessment by the SOs across the technical, commercial and construction related drivers.

- 2 For the avoidance of doubt, all references to shallow works in table 4 should be taken to also include deep distribution works

¹⁹ Please note where the change is submitted as part of a change to specific data, and the change to specific data is chargeable, then there will be no additional charge for this modification

Changes to Applicant Specific Data – Second and Subsequent submissions. Initial submission processed free of charge (Table 5 below)

Table 5 – Changes to Applicant Specific Data

Basic Type	Types of Modifications	Level	Main Driver
House Load	Change to house load	1	Commercial
Reactive Power Devices	Change to reactive power compensation devices	2	Tech Studies
Change to generation turbine/unit(s)	Change to generation turbine/unit ²⁰ with no significant expected change to shallow works	2.5	Tech Studies
	Change to number of generating turbines/units with no significant expected change to shallow works	2.5	Tech Studies
	Change to generation turbine/unit ²¹ with significant expected change to shallow works	4	All
	Change to number of generating turbines/units with significant expected change to shallow works	4	All
Transformer Changes	Change to grid connecting transformer(s) specifications	2.5	Tech Studies
	Change to number of grid connecting transformers	3.5	All

²⁰ Including wind turbine changes etc.

²¹ Including wind turbine changes etc.