



An Coimisiún  
um Rialáil Fóntas  
**Commission for  
Regulation of Utilities**

An Coimisiún um Rialáil Fóntas  
**Commission for Regulation of Utilities**

# Electricity Transmission Network Allowed Revenues for 2022 And Demand Transmission Use of System (D-TUoS) Tariffs 2021/22

## Information Paper

Reference: CRU/21/078

Date Published: 03/08/2021

[www.cru.ie](http://www.cru.ie)

The Exchange, Belgard Square North, Tallaght, Dublin 24, Ireland  
T +353 1 4000 800 | F +353 1 4000 850 | [www.cru.ie](http://www.cru.ie)

## Public/Customer Impact Statement

The electricity transmission system is owned by ESB (Transmission Asset Owner or TAO)<sup>1</sup> and operated by EirGrid (Transmission System Operator or TSO). It allows for the transport of large volumes of electricity from generators to supply points, where electricity is then sent to homes and businesses through the distribution system (some large businesses are connected to the transmission system directly).

The CRU's role is to protect electricity customers by ensuring that the network companies, EirGrid and ESB Networks (ESBN), spend customers' money appropriately and efficiently to deliver necessary services. The CRU does this through the Price Review process, which sets the revenues that the network companies will be allowed to recover during the next five years to safely operate, develop and maintain the transmission system. The revenues, which feed into the transmission charges, are updated by the CRU every year, as well as the tariffs.

This paper sets out the allowed 2022 revenues and 2021/22 charges necessary to allow EirGrid and ESBN recover the costs of safely operating, maintaining and developing the transmission system. These charges are referred to as Transmission Use of System (TUoS) tariffs and are divided in Generator TUoS (G-TUoS) tariffs and Demand TUoS (D-TUoS) tariffs, which are charged to generators and suppliers respectively. Currently D-TUoS tariffs make up approximately 8%<sup>2</sup> of an average residential customer's electricity bill. However, suppliers decide how to structure the tariffs they offer to consumers to recover their costs, including other non-network related costs.

Customer's annual bills depend, on other factors, such as wholesale market costs (which are in turn driven by factors such as international commodity prices), capacity market costs and other system costs. Further detail on these costs can be found in CRU's H1 Energy and Water Monitoring Report.<sup>3</sup>

---

<sup>1</sup> ESB TAO acts through its business unit ESB Networks.

<sup>2</sup> The Distribution Use of System tariffs account for approximately 25% of the average residential electricity's bill.

<sup>3</sup> Energy and Water Monitoring Report - <https://www.cru.ie/wp-content/uploads/2020/12/CRU20173-Energy-and-Water-Monitoring-Report-for-H1-2020-1.pdf>

## Executive Summary

This Information Paper sets out the update to the Allowed Revenues that the transmission network companies, EirGrid (TSO) and ESB Networks (TAO), will be entitled to recover during 2022. These revenues are required for the safe, efficient operation, maintenance and development of the electricity transmission system to ensure that there is a reliable supply for electricity consumers.

Furthermore, the paper sets out the CRU's decision on the associated Demand Transmission Use of System (TUoS) tariffs that will apply to demand customers from 01 October 2021 to 30 September 2022.

The transmission Average Unit Price (AUP) for the 2021/2022 period is estimated to be €2.018c/kWh<sup>4</sup>, which is an increase of circa 11% relative to the current AUP. The increase is largely driven by the CRU's provision of costs associated with securing emergency generation for 2021/2022. The increase in revenues and the 2021/2022 AUP does not directly correlate to how individual demand tariffs will change for 2021/22 tariff year. This is because the tariffs calculated by the TSO are determined by a set of allocation rules and use a number of detailed adjustment parameters. Given that the AUP and the demand tariffs are calculated in different ways and represent slightly different things, the TSO's customer impact analysis (see Appendix A) will always vary from the CRU's AUP.

The D-TUoS tariffs are charged to suppliers, who may choose how, or whether, to pass them on to their customers. A customer's annual bills depend on other factors such as wholesale market costs (which are in turn driven by factors such as international commodity prices), capacity market costs and other system costs. Further detail on these costs can be found in CRU's Energy and Water Monitoring Report.<sup>5</sup>

### Context

Allowed revenues for the TSO and TAO are set every five years by the CRU following a review of the specific underlying costs of the network companies. These allowed revenues are then updated<sup>6</sup> each year and network tariffs are set to allow for those revenues to be recovered. The CRU's regulatory framework for network regulation represents international best practice and is recognised as one of the "...world's most stable and predictable".<sup>7</sup> This year represents the first year of Price Review Five which was published in December 2021.<sup>8</sup>

Please note that the allowed transmission revenues are established on a calendar year basis whereas the TUoS tariffs run from 01 October to 30 September. Therefore, the TUoS tariffs

---

<sup>4</sup> This is based on the total tariff year revenue amount/GWh sales.

<sup>5</sup> Energy and Water Monitoring Report - <https://www.cru.ie/wp-content/uploads/2020/12/CRU20173-Energy-and-Water-Monitoring-Report-for-H1-2020-1.pdf>

<sup>6</sup> Using the most up-to-date information, allowed revenues are reviewed annually to account for updated inputs as inflation rates, forecast demand and adjustment to outturn and forecast costs.

<sup>7</sup> Moody's Publication - <https://esb.ie/docs/default-source/investor-relations-documents/moodys-comment-esb-price-review-5-determination>

<sup>8</sup> Price Review Five Publications: [https://www.cru.ie/document\\_group/price-review-5-electricity-networks/](https://www.cru.ie/document_group/price-review-5-electricity-networks/)

are set for periods that span two separate calendar years (i.e. October 2021 to September 2022).

## Allowed Revenues

The transmission revenues for the TSO and TAO for 2022 are detailed below:

Table 1 Summary of transmission revenues for 2022

<b>Summary of allowed revenues for 2022 (in 2022 prices)</b>				
<b>€ millions</b>	<b>2022 Revenue Allowance</b>	<b>2022 Updated Forecasts</b>	<b>2020 k factor</b>	<b>CRU updated 2022 allowance</b>
TSO	329.18	441.60	-5.86	435.74
TAO	264.04	264.04	-53.61	210.43
<b>Total</b>	<b>593.22</b>	<b>705.64</b>	<b>-59.46</b>	<b>646.17</b>

The CRU's review and consideration of updated key inputs has resulted in an adjusted figure of €646.17m for 2022. The CRU allowance for the network companies for calendar year 2021 was €537.37m (nominal). This represents a year-on-year increase of *circa* 20%. This increase is primarily driven by the inclusion of a placeholder for emergency generation (see Section 3.3.4).

## Transmission AUP for 2021/2022 tariff period

The CRU's Average Unit Price (AUP), measured in c/kWh, is calculated by dividing the total allowed tariff year revenue, i.e. 2021/2022 by the forecast energy for the tariff year 2021/2022.

The total allowed tariff year revenue 2021/2022 is comprised of 26.26% of the 2021 calendar year revenue allowance and 73.74% of the 2022 calendar year revenue allowance. This share is determined by an approximation of the demand split between January to September and October to December. The forecast demand for tariff year 2021/22 is 30,600GWh, which represents a *circa* 6% increase compared to the forecast demand for tariff year 2020/21. This increase has negated some of the increases associated with the 2021/2022 tariffs. As stated previously, the largest driver to the change in revenues for 2021/2022 is the inclusion of an emergency generation placeholder for the TSO's external costs. The CRU has compared the revenues and AUP with and without the revenues associated with the emergency generation placeholder below.

### Transmission AUP (Excl. Emergency Generation)

The 2021/2022 tariff year revenue excluding emergency generation placeholder is €532.80m, which represents an increase of 1% on the 2020/2021 tariff year revenue. The 2022 revenues

excluding the emergency generation placeholder are circa 1% lower than the 2021 revenues. The transmission AUP (excluding emergency generation) is €1.74c/KWh. This is 4% lower compared to the 2020/2021 AUP of €1.81c/KWh.

### **Transmission AUP (Incl. Emergency Generation)**

The inclusion of €115m is driven by EirGrid's planned emergency generation for winter 2021/2022 (see Section 3.3.4). The 2021/2022 tariff year revenue including emergency generation placeholder is €617.6m, which represents an increase of 17% on the 2020/2021 tariff year revenue. The 2022 revenues including the emergency generation placeholder are *circa* 20% higher than the 2021 revenues. The transmission AUP (including emergency generation) is €2.02c/KWh. This is 11% higher compared to the 2020/2021 AUP of €1.81c/KWh.

### **Combined AUP (Transmission and Distribution)**

The combined transmission and distribution AUP for the 2021/2022 period is estimated to be €4.911c/kWh<sup>9</sup>, which is a decrease of circa 0.2% relative to the current AUP.

The AUP calculation is a way of comparing average unit prices when moving from one tariff period to the next tariff period. However, as noted above, given that the AUP and the demand tariffs are calculated in different ways and represent slightly different things, the TSO and DSO's customer impact analysis will always vary from the CRU's AUP.

---

<sup>9</sup> This is based on the total tariff year revenue amount/GWh transmission demand.

## **Table of Contents**

<b>Public/Customer Impact Statement .....</b>	<b>1</b>
<b>Executive Summary.....</b>	<b>2</b>
<b>Glossary of Abbreviations and Terms .....</b>	<b>7</b>
<b>1. Introduction.....</b>	<b>8</b>
<b>1.1. Commission for Regulation of Utilities.....</b>	<b>8</b>
<b>1.2. Background .....</b>	<b>8</b>
<b>1.3. Legal background.....</b>	<b>8</b>
<b>1.4. Purpose of this information paper.....</b>	<b>8</b>
<b>1.5. Other Related Documents.....</b>	<b>9</b>
<b>1.6. Structure of Paper .....</b>	<b>9</b>
<b>2. Annual Revenue Review Process .....</b>	<b>10</b>
<b>2.1. CRU’s Revenue Setting Process .....</b>	<b>10</b>
<b>2.2. Determination of TUoS tariffs for each tariff period.....</b>	<b>11</b>
<b>3. CRU’s Revenue Allowance for 2022.....</b>	<b>12</b>
<b>3.1 Summary of TAO and TSO Revenue .....</b>	<b>12</b>
<b>3.2 TAO Allowed Revenue for 2022 .....</b>	<b>13</b>
3.2.1. TAO k-factor .....	13
3.2.1.1. Interest Provision for TAO 2020 k-factor .....	15
3.2.1.2. TAO 2020 incentives outturn .....	15
3.2.2. Summary of TAO Allowed Revenue for 2022 .....	16
<b>3.3 TSO Allowed Revenue for 2022.....</b>	<b>17</b>
3.3.2. TSO 2020 k-factor .....	17
3.3.3. Interest Provision for TSO 2020 k-factor.....	18
3.3.3. TSO 2020 incentives outturn.....	18
3.3.4. TSO 2022 forecast Adjustments .....	22
3.3.5. Summary of TSO Allowed Revenue for 2022 .....	26
<b>4. TUoS Tariffs for 2021/22 .....</b>	<b>27</b>
<b>5. Summary of 2022 Review .....</b>	<b>29</b>
<b>Appendix A.....</b>	<b>30</b>

## Table of Tables

Table 1 Summary of transmission revenues for 2022.....	3
Table 2: Overview of Price Review timeline.....	10
Table 3: Summary of revenue allowances .....	12
Table 4: 2021 revenues vs 2022 revenues (Nominal) .....	13
Table 5: Summary of adjustments to TAO 2020 allowed outturns and resulting k-factor .....	14
Table 6: Summary of TAO allowed revenue for 2022 .....	16
Table 7: Summary of adjustments to the TSO 2020 revenue and resulting k-factor.....	17
Table 8: Summary of incentive Outturn.....	19
Table 9: 2020 Strategic Incentive Performance .....	22
Table 10: Summary of TSO 2022 forecast adjustments .....	22
Table 11: Summary of TSO Allowed Revenue for 2022.....	26
Table 12: D-TUoS tariffs 2021/22 .....	31
Table 13 Locational Scarcity Scalars 2021/22 .....	32

## Glossary of Abbreviations and Terms

Abbreviation or Term	Definition or Meaning
<b>TSO</b>	Transmission System Operator (EirGrid)
<b>TAO</b>	Transmission Assets Owner (ESB Networks)
<b>CRU</b>	Commission for Regulation of Utilities
<b>PR</b>	Price Review. This is a five-yearly review of the transmission companies' allowed revenues
<b>Allowed Revenues</b>	The sum of costs that the transmission companies are entitled to obtain in a given period, as approved by the CRU
<b>TUoS tariffs</b>	Transmission Use of System tariffs
<b>G-TUoS tariffs</b>	Generator TUoS tariffs – charged to generators
<b>D-TUoS tariffs</b>	Demand TUoS tariffs – charged to energy suppliers
<b>DUoS</b>	Distribution Use of System
<b>Correction factor</b>	An adjustment of revenue applied to rectify over or under recoveries
<b>Euribor</b>	Euro Interbank Offered Rate indicating the average interest rates at which Eurozone banks offer to lend to other banks
<b>HICP</b>	Harmonised Index of Consumer Pricing
<b>GWh</b>	Gigawatt hours
<b>AUP</b>	The Average Unit Price (AUP), that is, the total tariff year revenue divided by total kWh.
<b>LSS</b>	Locational Scarcity Scalar

# 1. Introduction

## 1.1. Commission for Regulation of Utilities

The Commission for Regulation of Utilities (CRU) is Ireland's independent energy and water regulator with a range of economic, customer protection and safety functions. Our mission is to protect the public interest in water, energy and energy safety.

Further information on the CRU's role and relevant legislation can be found on the CRU's website at [www.cru.ie](http://www.cru.ie).

## 1.2. Background

The CRU is responsible for the economic regulation of the system operators and asset owners for the electricity transmission and distribution systems. Price Reviews, which limit the revenues that the relevant licensees can recover from electricity consumers are set every five years. The CRU's five-year Price Review process is in line with international best practice.

This tariff year (2021/2022) represents the first full tariff year of Price Review Five. The revenue allowances are therefore set by reference to the revenue allowances determined under PR5. The annual revenues (determined as part of Price Review Five) are reviewed and adjusted each year when setting Transmission Use of System charges (TUoS or network tariffs). These tariffs are also reviewed and adjusted annually. The annual revenue review includes adjustments to account for more up to date forecasts such as latest level of inflation or demand. It also captures outturn adjustments that relate to the outcome of previous years through k-factors. For this paper, that means applying a 2020 k-factor and updating the forecast Price Review revenue for 2022 to account for adjustments.

## 1.3. Legal background

Under the Electricity Regulation Act 1999, as amended, ("The Act"), the CRU is the independent body responsible for overseeing the regulation of Ireland's electricity sector. Section 35 of the Act, provides the CRU the legal basis to approve charges for the use of the electricity system in Ireland.

In accordance with Section 35 of the Act, the CRU's electricity Price Review decision outlines the revenue that the TSO and TAO can recover from network customers through Transmission Use of System (TUoS) tariffs during a Price Review period. Consistent with Section 36 of the Act, the TSO's Schedule of charges, prepared in accordance with Section 35, must be submitted to the CRU for approval and will not take effect until approved by the CRU. This approval takes place annually through the annual revenue review.

## 1.4. Purpose of this information paper

This paper outlines the CRU's decision in relation to the allowed revenues for 2021 of ESB Networks as Transmission Asset Owner (TAO) and EirGrid as Transmission System Operator

(TSO). Furthermore, the paper sets out the CRU's decision on the associated Demand Transmission Use of System (D-TUoS) tariffs that will apply to demand customers from 01 October 2021 to 30 September 2022.

## 1.5. Other Related Documents

[CRU/20/152](#) Final Determination Paper on TSO and TAO Revenue for 2021 to 2025 (PR5)

[CRU/20/154](#) Regulatory Framework, Incentives and Reporting (PR5)

[CRU/20/095](#) Information Paper on 2021 TSO and TAO Revenue and 2020/21 D-TUoS tariffs

[CRU/20/103](#) Information Paper on 2020 TSO and TAO Revenue and 2019/20 D-TUoS tariffs

## 1.6. Structure of Paper

This Paper is divided into five sections:

**Section 1** provides an introduction to the purpose of this Information note, the CRU tasks and also include related documents.

**Section 2** outlines CRU's revenue setting process.

**Section 3** details the TAO and TSO revenues for 2022. This section includes information on the applicable revenue formula, the 2020 allowed outturn and the 2022 updated forecast.

**Section 4** details the D-TUoS tariffs approved for implementation from 01 October 2021 to 30 September 2022.

**Section 5** provides a summary of the CRU's decision regarding the 2022 transmission network revenues.

## 2. Annual Revenue Review Process

In this section the revenue review process is described, which includes how adjustments are made to calendar year revenues and how calendar year revenues translate into TUoS tariffs.

### 2.1. CRU's Revenue Setting Process

In December last year, the CRU published its PR5 decision on the current electricity transmission Price Review. That decision set out the revenues that the TSO and TAO can collect from use of system customers over the 2021 to 2025 period, both inclusive. In line with that decision, the CRU collects and reviews cost information from the TAO and TSO on an annual basis in order to update the allowed revenues for each year from 2021 to 2025, see Table 2.

As stated before, the revenue allowances are set by reference to the revenue allowances determined under Price Review Five.

Table 2: Overview of Price Review timeline

Overview of Price Review Period Timeline	
Year	Description
<b>2019-2020</b>	Five-year price review, PR5, including: <ul style="list-style-type: none"> <li>• Ex-post adjustments on the previous five years of expenditure (2016 to 2020).</li> <li>• Ex-ante setting of revenues for the next five years of expenditure (2021 to 2025).</li> </ul>
<b>2021</b>	CRU's annual revenue reviews and updates to revenues and TUoS tariffs.
<b>2022</b>	
<b>2023</b>	
<b>2024</b>	
<b>2025</b>	
<b>2024-2025</b>	Five-year price review, PR5, including: <ul style="list-style-type: none"> <li>• Ex-post adjustments on the previous five years of expenditure (2021 to 2025).</li> <li>• Ex-ante setting of revenues for the next five years of expenditure (2026 to 2030).</li> </ul>

As part of the annual review process, existing forecast items are updated as appropriate. Furthermore, an opportunity is provided for the network companies to request revenue for additional items that were not envisaged or captured at the time of setting the five-year allowances. This paper details the CRU's decision on all such items and outlines the results of implementing the yearly update of 2022 revenues, including the associated D-TUoS tariffs for the period 01 October 2021 to 30 September 2022.

## **2.2. Determination of TUoS tariffs for each tariff period**

The TUoS tariffs are composed by the Generator Transmission Use of System (G-TUoS) tariffs and Demand Transmission Use of System (D-TUoS) tariffs, passed on to generators and energy suppliers respectively. At present, TUoS tariffs make up approximately 8% of a residential customer's bill.<sup>10</sup>

The CRU approves TUoS tariffs on an annual basis to cover the period from 01 October to 30 September. TUoS tariffs are set to recover 26.26%<sup>11</sup> of the revenues associated with the first calendar year included in the tariff period and 73.74% for the second calendar year, as the revenues are set on a calendar year basis whereas the network charges are set on a tariff year basis (October to September).

This information paper focuses on the D-TUoS tariffs established for the tariff period from 01 October 2021 to 30 September 2022 and represent 26.39% of 2021 revenue and 73.61% of 2022 revenue.

---

<sup>10</sup> The Distribution Use of System tariffs account for approximately 25% of the average residential electricity's bill.

<sup>11</sup> This is based on the percentage of demand that relates to the relevant period of the year.

### 3. CRU's Revenue Allowance for 2022

This section provides a summary of the TAO and TSO revenues for 2022. These revenues account for updated TSO and TAO forecasts and the 2020 k-factor.

Following that summary, section 3.2 and 3.3 go into further detail on the costs associated with the respective network companies' requests for 2022.

#### 3.1 Summary of TAO and TSO Revenue

The Price Review Five decision paper (CRU/20/152) was published in December 2020. This paper determined the network companies' revenues for 2021 to 2025 period and examined the cost and performance over the previous five years (2016 to 2020). The difference between the outcome of this Information Paper and the outcome of the CRU's PR5 Final Determination, regarding the 2022 allowed revenues, will be corrected in future years through the k-factor mechanism.

Table 3 below provides an overview of the revenue allowances for 2022 and also accounts for HICP adjustments. The forecast HICP rate for 2020 of 1.3% was corrected for the actual of -0.46%. The total transmission allowed revenue for the 2022 calendar year as per the annual update is €646.17m (2022 prices). Table 4 later in this section shows a comparison between the 2021 and the 2022 revenues.

Table 3: Summary of revenue allowances

Summary of 2022 Allowed Revenues				
€m (2022 Prices)	PR5 Revenue Allowance	Updated 2022 Allowance	2020 k factor	CRU updated 2022 allowance
TAO	264.04	264.04	-53.61	210.43
TSO	329.18	441.60	-5.86	435.74
<b>Total</b>	<b>593.22</b>	<b>705.64</b>	<b>-59.46</b>	<b>646.17</b>

#### CRU updated 2021 allowance vs CRU updated 2022 allowance

The CRU allowance for the network companies for calendar year 2021 was €537.37m. The 2022 allowances of €646.17m represents a year-on-year increase of *circa* 20%.

Table 4: 2021 revenues vs 2022 revenues (Nominal)

	CRU approved revenues 2021 allowance	CRU approved revenues 2022 allowance	Change (%)
<b>TAO</b>	€300.44m	€210.43m	- 30%
<b>TSO</b>	€236.92m	€435.74m	+ 84%
<b>Total</b>	<b>€537.37m</b>	<b>€646.17m</b>	<b>+ 20%</b>

The main drivers for these changes are set out below:

- The TSO revenue allowance for 2022 includes a placeholder of €115m for the provision of emergency generation. The revenue will be used to secure temporary generation in the Greater Dublin Region. Excluding this revenue from the TSO allowance would result in a year on year decrease of *circa* 1.2%.
- The TAO 2021 k-factor includes a significant adjustment due to an over-recovery of costs. Last year's tariffs were set in the context of uncertainty due to Covid and in addition it was a transition year between PR4 and PR5, requiring estimated 2021 revenues to be included. The final PR5 allowance was lower than the forecast allowance included in last year's tariffs.

## 3.2 TAO Allowed Revenue for 2022

For the TAO the CRU has allowed €210.43m in 2022 Prices. This can be broken down into a 2022 allowance of €264.04m and a 2020 k factor of -€53.61m.

The 2022 allowance, prior to any k-factor adjustment, of €264.04m is derived from the 2021 approved revenues. This application of the 2020 k-factor results in a revenue decrease of *circa* 20%. The difference between the outcome of this paper will be corrected in future years through the k-factor mechanism.

### 3.2.1. TAO k-factor

*(figures are in 2022 prices in this section, unless otherwise stated)*

This section outlines the difference between the PR4 allowance for 2020 (determined in 2015) and the allowed outturn of 2020 (as determined in this paper). The difference between these figures is known as the 2020 'k-factor', which feeds into the 2022 TAO revenue allowance.

A large portion of the total k-factor (€40.7m) is made up of a 2021 revenue component. In ESNB's submission it was described how the 2020/21 tariff year was a transition year between PR4 and PR5, with the allowed revenue in PR5 for 2021 €40.7m less than was provisionally approved for 2021 (in advance of the PR5 decision). ESNB proposed this true-up would be too large in a single year and proposed spreading over 4 years. The CRU has determined that this true-up should be applied in a single year as a once off. This will be returned to customers through a downward adjustment to the TAO's 2022 revenue allowance. The individual k-factor adjustments are shown in Table 5 and explained below the table.

Table 5: Summary of adjustments to TAO 2020 allowed outturns and resulting k-factor

€ millions	PR4 Allowance for 2020 (ex-ante)	CRU Outturn Allowance for 2020 (ex-post)	2020 Adjustments
<b>Pass Through Costs</b>			
CRU Regulatory levy	1.23	1.20	-0.04
Local Authority Rates	33.40	30.78	-2.62
<b>Uncertain Costs: Non-Capitalised</b>			
Additional Use of System (AUoS)	-0.51	-0.38	0.14
2021 Revenue allowance and PR5 decision mismatch	304.44	263.68	-40.76
PR4 Opex	37.14	33.63	-3.51
<b>Incentives</b>	2.31	3.29	0.98
<b>Inflation Correction</b>	-	-4.91	-4.91
<b>Uncertain Costs: Capitalised</b>			
Depreciation	-	-1.16	-1.16
Return	-	-2.23	-2.23
<b>Total k-factor adjustment (before interest) in 2022 Prices</b>			<b>-54.13</b>
<b>Total k-factor adjustment (after interest) in 2022 Prices</b>			<b>-53.61</b>

1. Local authority rates (-€2.6 million)

Rates are levied annually by local authorities around the country on the TAO. Following this year's review, a downward adjustment of €2.58m has been applied to the allowance for 2020.

2. CRU Regulatory levy (-€0.04 million)

The CRU levy is applied annually and following this year's review, a downward adjustment of €0.04m has been applied to the allowance for 2020.

3. Inflation Correction (-€4.91 million)

The CRU's calculation of annual revenue allowances comprises a forecast inflation adjustment. The 2020 ex-ante allowance was calculated using forecast inflation rates for 2019 and 2020. Correcting those rates to actuals results in a downward adjustment of €4.91m.

4. Additional Use of System (AUoS) (€0.14 million)

The Additional Use of System relates to use of the transmission system for purposes other than the electricity transmission, such as telecoms. In 2020, in line with the agreed methodology, ESB Telecoms Ltd returned €376k of AUoS to consumers through the TAO revenue. This results in an increase of €0.14m to the revenues.

5. Revenue allowance and PR5 Mismatch (-€40.76 million)

2020/21 was a transition year between PR4 and PR5, with allowed revenues in PR5 for 2021 €40.7m less that was approved for 2021 (in advance of the PR5 decision). ESB Networks has proposed to true-up the difference over four years. This would result in a €10.2m reduction the 2022 revenue requirement.

The CRU has determined that this difference is to apply in one year. This results in the full €40.76m difference being applied to the 2022 revenues.

#### 6. PR4 Operating Costs (-€3.51 million)

For the year ended 31 December 2020, the total opex incurred was €33.63m, €3.51m lower than the 2020 allowance per the final review of PR4 historical decision paper (CRU/20/149). ESB Networks have explained that this underspend is predominantly due to the impact of Covid-19 on the transmission maintenance and repairs programme.

#### **3.2.1.1. Interest Provision for TAO 2020 k-factor**

Once the k-factor is calculated, an interest adjustment is applied.

As stated in CER/20/152 (PR5), interest at the three-month average Euribor rate would be added to the relevant annual over/under recovery amount. The interest rate (I) that is applied to under and over-recoveries/ k-factors for transmission revenue for year t-2 is as follows:

- It is the mean of the twelve-monthly average three month Euribor rate between April and March of the year t-2 (i.e. April of year t-3 to March year t-2) multiplied by the mean of the twelve monthly average three month Euribor rate between April and March of the year t-1 (i.e. April of year t-2 to March year t-1).

Applying the above methodology to the TAO 2020 k-factor results in a net TAO k-factor over-recovery of €53.61m.

#### **3.2.1.2. TAO 2020 incentives outturn**

*(figures are in 2022 prices in this section, unless otherwise stated)*

Based on the TAO's performance in 2020, the CRU has allowed an amount of €3.24m, in 2022 prices. This is accounted for in the 2020 k factor figure of €0.98m set out above. The incentives metrics of the TAO for 2020 are described below.

In May 2018, the CRU published its Decision Paper on Reporting and Incentives under PR4, CER/18/087, setting out new incentives arrangements and reporting obligations. For 2020, the TAO incentives are made up by:

- Scheduled Outages
- Investment Delivery
- Investment Delivery 2020
- Short Notice Outage Adjustment Mechanism

#### 1. Scheduled Outages

In 2020, the number of scheduled outage days was 10,785 and the total actual outage days were 9,842. The CRU has allowed the full incentive payment available i.e. €0.54m.

## 2. Investment Delivery 2019 and 2020

As part of CER/18/087, it was decided that the TAO will be subject to a financial incentive on its performance in contributing to investment planning and delivery. The incentive payment will be based on performance against a Key Performance Indicators (KPI) framework proposed by the TAO and approved by the CRU. It was agreed with the TAO that the CRU will set the incentive payment informed by an independent audit. The audit, which will be arranged by the TAO, will use the KPI framework to assess performance of the TAO.

Based on the audit report and other evidence deemed relevant, performance can be graded as:

“Strong” = payment of 4.2% of TAO internal opex, i.e.

“Acceptable” = payment equal to the reasonable cost of the audit.

“Below acceptable” = penalty of 4.15% of TAO internal opex.

An allowance was included in the TAO’s 2019 k-factor<sup>12</sup> to provisionally account for a strong performance against its outlined 2019 initiatives. The subsequent audit and CRU review resulted in a strong performance and as such, no clawback is necessary.

The TAO submitted its Investment Delivery 2020 outturn report, including the independent audit report, in May 2020. The independent auditors found that the evidence provided by ESB Networks supports a recommendation of a “Strong” performance against the outlined initiatives contained in the balanced scorecard. Therefore, the TAO is awarded an incentive payment of €2.66m.

### 3.2.2. Summary of TAO Allowed Revenue for 2022

A summary of the allowed TAO revenue for 2022 is provided in Table 6.

Table 6: Summary of TAO allowed revenue for 2022

	€m (2022 prices)
TAO revenue for 2022	264.04
Approved k-factor	-53.61
<b>Approved updated allowed revenue for 2022</b>	<b>210.43</b>

<sup>12</sup> Electricity Transmission Allowed Revenues for 2021 - <https://www.cru.ie/wp-content/uploads/2020/12/CRU20095-Information-Paper-2021-Transmission-Revenues-and-20202021-DTUoS.pdf>

### 3.3 TSO Allowed Revenue for 2022

For the TSO, the CRU has allowed €435.74m in 2022 Prices. This can be broken down into a 2022 allowance of €441.6m and k factor of -€5.86m.

The TSO submission put forward a 2022 revenue requirement of €318.68m net of the 2020 k factor. The overall adjustment to the forecast TSO 2022 revenue is an increase of €112.42m (€111.29m, real 2019). The largest influencing factor on this adjustment is the inclusion of a €115m provision for emergency generation, the other key changes/adjustments are set out below.

#### 3.3.2. TSO 2020 k-factor

The TSO 2020 k-factor is calculated in the following manner:

- a) The first step is the calculation of the difference between the CRU Tariff Decision for the 2020 revenues (as determined in 2019) and the approved 2020 updated actual costs (as determined in this paper).
- b) The second step is the subtraction of the approved 2022 updated actual costs (as determined in this paper) minus the revenue collected by the TSO in 2020 through the Transmission Use of System (TUoS) tariffs.

The resulting figure is known as the 2020 'k-factor', which feeds into the 2022 TSO revenue allowance. The TSO 2020 k-factor (in 2022 prices) is an over-recovery of €5.86m (including interest adjustments), this is explained within this section. The over-recovery will be returned to customers by applying an equal downward adjustment to the TSO's 2022 revenue allowance. The individual k-factor adjustments are shown in table 7.

Table 7: Summary of adjustments to the TSO 2020 revenue and resulting k-factor

€ millions	2020 Revenue Decision	2020 Approved Costs
<b>External Costs (Nominal)</b>		
CRU Regulatory Levy	0.95	1.18
DUoS Costs	3.23	2.59
Interconnector Services	0.65	0.43
Inter TSO Compensation	1.50	1.77
CORES0	0.54	0.64
Ancillary Services	3.53	2.76
DS3 System Services	100.00	117.81
TAO charge	282.91	290.99
EWIC	6.23	6.23
Dublin Security of Supply	29.10	18.34
<b>Total External Costs</b>	<b>428.63</b>	<b>442.74</b>
<b>Allowed TSO Operating Revenue (Nominal)</b>		
Allowed TSO Internal Opex costs	47.109	46.350
I-SEM Operating Revenue	5.034	4.953

Depreciation	8.439	8.303
Stage 1 Side RAB – Working Capital	0.966	2.049
Working Capital (Other)	5.214	5.983
Return on RAB – CapEx non-network	3.34	3.287
<b>Total Internal Costs + Return etc.</b>	<b>70.103</b>	<b>70.924</b>
<b>Approved adjustments (Nominal)</b>		
PR3/PR4 Adjustment	-0.708	-0.697
Return on Strategic Projects (Ireland France)	0.594	0.784
Guarantees of Origins and Constraints Banking Fee	0.507	0.499
DS3 System Services Project (Depreciation & Return)	1.321	1.300
I-SEM Implementation Project (Depreciation & Return)	18.338	18.042
Unrecovered Stage 1 Costs	3.237	3.185
Interim Intra Market Implementation	0.000	0.747
<b>Total Adjustments</b>	<b>23.289</b>	<b>23.859</b>
<b>Incentives</b>		
2018 Incentive allowance*	<b>0</b>	<b>3.07</b>
2018 Over Recovery	-31.084	-30.084
<b>Total (2020 Prices)</b>	<b>490.93</b>	<b>510.51</b>
<b>Total (2019 Prices)</b>	<b>(A)</b>	<b>512.86</b>
<b>TUoS collected from TSO (2019 Prices)</b>	<b>(B)</b>	<b>518.71</b>
<b>Total k-factor Adjustments Including Interest Adjustments (2019 Prices)</b>	<b>(A-B)</b>	<b>-5.79</b>
<b>Total k-factor Adjustments Including Interest Adjustments (2022 Prices)</b>		<b>-5.86</b>

\*further details on the incentive allowance provided in section 3.3.4.

### 3.3.3. Interest Provision for TSO 2020 k-factor

Once the k-factor is calculated, an interest adjustment is applied.

As stated in CER/20/154 (PR5), interest at the three-month average Euribor rate would be added to the relevant annual over/under recovery amount. The interest rate (I) that is applied to under and over-recoveries/ k-factors for transmission revenue for year t-2 is as follows:

- It is the mean of the twelve-monthly average three month Euribor rate between April and March of the year t-2 (i.e. April of year t-3 to March year t-2) multiplied by the mean of the twelve monthly average three month Euribor rate between April and March of the year t-1 (i.e. April of year t-2 to March year t-1).

Applying an interest rate of minus 0.42% in 2020 and minus 0.54% in 2021 to the TSO 2020 k-factor results in a net k-factor over-recovery of €5.86m (2022 prices).

### 3.3.3. TSO 2020 incentives outturn

*(figures are in 2020 prices in this section, unless otherwise stated)*

Based on the TSO's performance in 2019, the CRU has allowed an overall incentive amount of €3.07m (2020 prices) to feed into the TSO's 2020 k-factor, which will feed into the 2022

revenues. The incentives metrics are described below. All figures are in 2020 prices unless otherwise stated.

In May 2018, the CRU published its Decision Paper on Reporting and Incentives under PR4, CER/18/087, setting out new incentive arrangements and reporting obligations.

For 2020, the TSO incentives are made up of:

- System Minutes Lost and System Frequency
- New Connections
- Investment Planning and Delivery
- Stakeholder Engagement
- Strategic incentives ➡ *in line with the TSO's role in the low carbon future transition*

Table 8 provides a summary of the TSO's performance against incentive targets, as set by the CRU, and also the incentives earned. Each incentive metric is described below the table:

Table 8: Summary of incentive Outturn

Incentive € millions 2020 prices	Targets			Performance	Incentive earned
	Lower	Dead/Central	Upper		
<b>System Minutes Lost (SML)</b>	1.0	1.5 – 3.0	3.5	0.064	€0.23m
<b>System Frequency in range 50Hz +/- 0.1Hz</b>	94%	96%	98%	99.67%	€0.23m
<b>New Connections Incentive – ECP1 2020</b>	Target Completion date for issuing of ECP-1 offers was 31 May 2020			Last ECP-1 offer issued by EirGrid on 26 May 2020	€0.69m
<b>Investment Planning and Delivery (2018 &amp; 2019)</b>	Below acceptable = penalty of 2% of TSO internal opex	Acceptable = reasonable cost of an audit	Strong = 2% of TSO internal opex	2018: Strong 2019: Acceptable	€0.96m
<b>Investment Planning and Delivery (2020)</b>	Below acceptable = penalty of 2% of TSO internal opex	Acceptable = reasonable cost of an audit	Strong = 2% of TSO internal opex	Outcome unknown. Reasonable cost of audit included.	€0.1m <sup>13</sup>
<b>Stakeholder Engagement</b>	Dependent on a score (range from 1 to 10) given by the NSEE Panel and linked to a financial incentive			Score 7.3	€0.24m
<b>Strategic Incentives</b>	€0m	-	€1.675m	Detailed below	€0.63m
<b>Total incentive outturn</b>					<b>€3.07m</b>

<sup>13</sup> Outcome unknown. No submission made by the TSO, as such a placeholder of €0.1m has been included for estimate of audit cost.

### 1. System Performance

The TSO's performance regarding SML was 0.064 SML in 2020, which is below the lower bound target set at 1 SML per year. The TSO's performance regarding System Frequency was the maintenance of frequency within the target operating limits of  $50 \pm 0.1$  Hz for 99.67% of the time. This performance is above the upper bound target set at 98% of the time.

Based on the TSO's system performance in 2020, the CRU has allowed an amount of €0.46m to feed into the TSO k-factor.

### 2. Connections Incentive

The TSO's performance under this incentive is determined in CRU/18/087. The TSO was incentivised to issue connection offers under the Enduring Connection Policy batch 1 (ECP-1) with the target completion date of 31<sup>st</sup> May 2020. A letter issued to the TSO further elaborated on the incentive schedule and a requirement for the TSO to submit a report to the CRU on the process no later than 1 November 2020. EirGrid submitted its performance report on 23 July 2020.

The incentive award was set at 0.5% of the total internal Opex between 2018 and 2020, equates to an award of €0.693m.

### 3. Investment Planning and Delivery – 2018 and 2019

The Investment Planning & Delivery incentive was introduced in CER/18/087. The purpose of this incentive is to test the quality and rigour of the TSO's end-to-end processes for investment planning and delivery. Based on a balanced scorecard assessment of performance, the TSO receive a score of either "strong", "acceptable", or "below acceptable". If "strong" performance is achieved, the TSO is entitled to 2.0% of internal opex, "acceptable" performance entitles the TSO to recover the reasonable costs of the audit to assess performance and "below acceptable" performance results in a penalty of 2.0% of the TSO's internal opex. More information on the balanced scorecard and assessment methodology is available in the CRU information paper [CRU/20/039](#).

In June 2021, the CRU assessed EirGrid's performance against this incentive in 2018 and 2019 and awarded scores of "strong" and "acceptable" respectively. This entitles EirGrid to recover 2.0% of internal opex in 2018 and to recover the reasonable costs of the audit for 2019. This revenue will be added to EirGrid's 2022 revenue allowance.

The 2018 audit of EirGrid's investment process found broad compliance across the internal processes. In some cases it was noted that Framework Control documents were not reflective of current process, the CRU advises EirGrid that in future assessments all control documents should be fully up-to-date. EirGrid also delivered 83% of the Transmission Outage Programme (TOP) in 2018, surpassing the target of 75% as set out in CRU/20/039. As well as this, additional 13 projects not included in the TOP18 were facilitated during the year.

EirGrid also achieved broad compliance across their processes in 2019, however did not achieve the 75% TOP target. EirGrid's submission demonstrates a risk assessment programme carried out during the investment planning process, but it is not clear that this goes

beyond business-as-usual risk assessment. Further, the submission identifies EirGrid's Delivery Assessment Programme (DAP) as a process improvement, however it appears from the submission that this programme was introduced in 2018. As well as this, CRU/20/039 refers to process improvements at "various stages within the six-step process", and the DAP appears to relate to outage management, rather than EirGrid's six-step process.

#### 4. Stakeholder Engagement

The TSO did not include any figure in its revenue request, as the incentive was dependent on a score given by a Panel. The CRU has included an allowance for this incentive metric after the score was known in June 2021. The background of this incentive is described below.

As decided in CER/21/053, a Panel<sup>14</sup> made up by stakeholders will annually assess and score the TSO's performance on stakeholder engagement. The score, on a range from 1 to 10, will be linked to a financial incentive.

The Panel will assess and score the TSO, on a scale from 1 to 10, on three categories:

- (A): Quality of strategy: **20%**
- (B): Implementation of strategy: **40%**
- (C): Effectiveness: **40%**

The maximum incentive payment in place for the TSO, is 1% of its internal opex.

The final overall score, agreed by the Panel, is calculated by weighting the scores given in each of the three categories and adding them together to get a score between 0 and 10. The TSO must achieve at least a final score of 5.0 in order to receive any incentive payment. The incentive payment is calculated:

$$\text{Incentive payment} = z + (x - 5) * \left(\frac{y-z}{5}\right)$$

Where:

x = the Panel's final score, i.e. 7.5.

y = maximum incentive payment, i.e. €0.47m.

z = 10% of maximum payment, i.e. €0.047m.

The Panel agreed on a final score of 7.3. On this basis, the CRU has allowed an amount of €0.238m to feed into the TSO 2022 revenue allowance.

#### 5. Strategic incentives - 2020

Performance indicators associated with EirGrid's strategic incentives were approved by the CRU in October 2020. These metrics are available in the CRU decision paper [CRU/20/120](#),

---

<sup>14</sup> The Networks Stakeholder Engagement Evaluation (NSEE) Panel is made up by stakeholders who were selected by the CRU through a consultation process.

and cover the delivery of the energy transition, as well as the management of costs associated with the energy transition.

In 2020, the CRU awarded EirGrid €0.629m of a total available €1.675m associated with the strategic incentives. This revenue will be added to EirGrid's 2022 revenue allowance. The breakdown of this is set out in Table 9 below.

Table 9: 2020 Strategic Incentive Performance

Strategic Incentive Metric	TSO Performance	Incentive Payment (€m)
Increase SNSP	20%	0.053
Innovative Solutions	70%	0.101
Annual QTP <sup>15</sup>	33.3%	0.029
Establish and Mobilise DS3+	0%	0
FlexTech	85%	0.166
DS3 System Services Procurement	100%	0.178
DSR Deployment	80%	0.102
Digital Performance Monitoring System	0%	0
<b>Total</b>	<b>38%</b>	<b>€0.629</b>

The CRU notes disappointing performance with respect to the Establishment and Mobilisation of DS3+. EirGrid's submission to the CRU noted that DS3+ has been replaced through the Shaping Our Electricity Future Roadmap consultation. However, it is noted that this consultation was published in 2021. Furthermore, the milestones included in this consultation were high-level and did not present new information which was known prior to publication.

While EirGrid achieved 85% of the milestones associated with the FlexTech workstream, this area has been identified by a number of stakeholders to the CRU as disappointing in 2020. It is understood that the expected level and quality of engagement promised through the FlexTech initiative was not delivered in 2020. The CRU urges EirGrid to consider their approach to such engagement in the future, particularly as quality engagement and cooperation across the industry will be required to deliver the transition to 2030.

### 3.3.4. TSO 2022 forecast Adjustments

The CRU has carried out a review of external cost requests made by the TSO as part of its 2022 Revenue Requirement submission and sets out its decision in relation to these below.

Table 10: Summary of TSO 2022 forecast adjustments

€m (2022 Prices)	PR5 2022 Decision	2022 Forecast	2022 Adjustments
CRU Regulatory Levy	0.99	1.13	0.14
DUoS Costs	3.28	3.64	0.36
Interconnector Services	0.83	1.01	0.18

<sup>15</sup> Qualification Trial Process

Inter TSO Compensation	2.12	2.22	0.09
CORES0	0.56	0.73	0.18
Ancillary Services	3.49	3.00	-0.49
DS3 System Services	155.44	176.25	20.81
EWIC	21.61	11.31	-10.30
Dublin Security of Supply	43.51	142.12	98.61
Allowed TSO Internal Opex costs	61.86	61.86	0.00
Depreciation	24.85	24.85	0.00
Stage 1 Side RAB – Working Capital	1.19	1.19	0.00
Working Capital (Other)	7.44	7.44	0.00
Return on RAB – CapEx non-network	2.74	2.74	0.00
PR3/PR4 Adjustment	-1.53	-1.53	0.00
Rolling Retention	0.66	0.66	0.00
Land Acquisition	0.00	1.08	1.08
Guarantees of Origins	0.00	0.38	0.38
Unrecovered Stage 1 Costs	0.00	0.37	0.37
France-Ireland Interconnector/ strategic projects return	0.00	1.15	1.15
<b>Total</b>	<b>329.04</b>	<b>441.60</b>	<b>112.60</b>

Allowances for TSO adjustments are set out above and detail on a number of the larger adjustments to costs are set out below.

1. Inter TSO Compensation (€2.22 million)

An amount of €2.22m has been allowed to the TSO's 2022 revenue for costs attributable to Inter TSO Compensation.

This cost is established by ENTSOE for the purpose of compensating transmission system operators for the costs of losses incurred by national transmission systems as a result of hosting cross-border flows of electricity and the costs of making infrastructure available to host cross-border flows of electricity.

2. CORES0 (€0.73 million)

Following this year's review, an amount of €0.73m has been allowed as part of the TSO's 2022 revenue for costs attributable to the membership of the Regional Security Coordinator.

3. Interconnector Services (€1.01 million)

Following this year's review, an amount of €1.01m has been allowed as part of the TSO's 2022 revenue for costs attributable to Interconnector Services.

These costs include Admin costs, Error Account and SO Trades, the latter makes up the bulk of the costs and are annually forecasted by EirGrid reflecting the agreed ROI 75%.

4. Regulatory levy (€1.13 million)

The CRU levy is applied annually and following this year's review, an amount of €1.13m has been allowed as part of the TSO's 2022 revenue.

5. DUoS costs (€3.64 million)

An amount of €3.64m has been allowed as part of the TSO's 2022 revenue to reflect new customers connecting at 110kV on the DSO network or changes in MIC of connected parties. For the 2022 allowance, ESB Networks provided the TSO with a forecast DUoS charge for a number of additional DG10 110 kV accounts. The TSO is required to pay the DSO based on invoices received.

6. Ancillary Services (€3.00 million)

Following this year's review, an amount of €3.00m has been allowed as part of the TSO's 2022 revenue for costs attributable to Ancillary Services.

Ancillary services for 2022 include Blackstart and Secondary Fuel Testing.

7. DS3 System Services (€176.25 million)

Following this year's review, an amount of €176.25m has been allowed as part of the TSO's 2022 revenue. The change in DS3 costs (+€20.8m) is largely driven by the TSOs forecast increase in system services expenditure due to increase in storage technologies which will provide high-value fast frequency services.

The DS3 system services will facilitate an increase of non-synchronous renewable generation over the coming years which will put downward pressure on wholesale market prices.

8. East-West Interconnector (EWIC) allowance (€11.31 million)

The EWIC charge is treated in the exact same fashion as all the external TSO cost items listed above, i.e. this charge will be allowed as pass through in PR5 and the CRU will undertake an annual ex-post adjustment to take account of actual outturn costs and revenues earned by the EWIC<sup>16</sup>. The change in EWIC costs is due to the application of a 2019/2020 k-factor. This deduction led to a EWIC charge of €11.3m versus the projected cost of €21.6m.

Based on the CRU's review of these updates, an amount of €11.31m has been allowed as part of the TSO's 2022 revenue.

9. Dublin Security of Supply (€142.12 million)

The Dublin Security of Supply cost category relates to costs associated with the implementation and ongoing delivery of the mitigation measures set out in CRU/18/228 and a

---

<sup>16</sup> Please refer the CER Information Paper on the EWIC revenue requirement (CER/12/149) which can be found [here](#).

placeholder for emergency generation in 2021/2022. An amount of €142.1m has been allowed as part of the TSO's 2022 revenue.

The CRU has recently been informed by the TSO of a significant security of supply issue this upcoming winter and its proposed measure to secure supply during this period. The total estimated cost in €115m. This represents a significant increase to the Price Review Five Dublin Security of Supply costs for 2022 (€43.5m). These costs are associated with the TSO's External costs and as such will not be accounted for in GTUoS tariffs. In determining that such costs be included as a placeholder for the TSO's 2022 revenue, the CRU took account of its legislative remit to protect security of supply. S.I. No. 60/2005<sup>17</sup> states:

*"The Commission shall take measures as it considers necessary to protect security of supply".*

The CRU will review the costs associated with this placeholder at the next Price Review. The TSO will be required to make a separate submission on this placeholder and demonstrate that expenditure was efficiently incurred.

#### 10. Guarantees of Origin (€0.38 million)

In CRU's decision paper CER/11/824 entitled 'Supervisory Framework for Administration of Guarantees of Origin' for renewable energy sources, it was set out that the operational costs and costs involved in setting up a charging infrastructure for Guarantees of Origin, would be recovered through EirGrid's network charges.

Following this year's review, an amount of €0.38m has been allowed as part of the TSO's 2022 revenue.

#### 11. Land Acquisition (€1.08 million)

In 2018, the CRU directed the TSO to acquire a suitable landbank in the Dublin area. A site was successfully identified and was acquired in 2020. The costs are to be recovered as a side RAB over a 15 year period with the regulatory determined cost of capital.

An amount of €1.08m has been allowed as part of the TSO's 2022 revenue.

#### 12. France-Ireland Interconnector (€1.15 million)

The CRU's Information Notes in 2014 (CER/14/427) and 2016 (CER/17/007) included the costs associated Phase 1 and 2 of the Ireland-France Interconnector. The forecast approach for Phase 3 costs for 2022 were requested by the TSO on the basis that the approach taken for Phase 1 and Phase 2 costs continues to apply.

With respect to Phase 3 costs, the TSO's submission and response to queries lacked clarity. Additional information with respect to how the Phase 3 costs differed from Phase 1 and Phase

---

<sup>17</sup> S.I. No. 60/2005 - European Communities (Internal Market in Electricity) Regulations 2005: <http://www.irishstatutebook.ie/eli/2005/si/60/made/en/print#partx-article28>

2 costs would have been helpful. Additionally, the TSO should have detailed why it considered the Phase 1 and Phase 2 recovery framework appropriate for Phase 3 costs.

The CRU has determined that given the fact that the regulatory framework for the Celtic project is yet to be finalised and the fact that the costs associated with Phase 3 are materially different to Phases 1 and 2, these costs have been excluded from the Revenues for 2022. Costs associated with Phase 3 will be recovered in accordance with the CRU's decision on the regulatory framework for Celtic.

### 3.3.5. Summary of TSO Allowed Revenue for 2022

A summary of the allowed TSO revenue for 2022 is provided in Table 11.

Table 11: Summary of TSO Allowed Revenue for 2022

€ millions	€m (2022 prices)
Allowed revenue for 2022	441.60
Approved k-factor for 2020	-5.86
<b>Approved updated allowed revenue for 2022</b>	<b>435.74</b>

## 4. TUoS Tariffs for 2021/22

Allowed revenues are set on a calendar year basis. However, TUoS tariffs are set for periods that span two calendar years (from 01 October in one year to 30 September the following year). This means that the TUoS tariffs are set to recover 26.39% of revenues associated with the first calendar year of the tariff period and 73.61% for the second calendar year.<sup>18</sup> For the D-TUoS (Demand Transmission Use of System) tariffs set out in this information paper, 26.26% of 2021 revenues and 73.74% of 2022 revenues have been allocated for recovery within the 01 October 2021 to 30 September 2022 tariff period.

The update of revenues detailed in the previous sections leads to a total revenue figure for the TUoS tariff period from 01 October 2021 to 30 September 2022 of €617.6 million. This represents circa 17% increase on the €527.3 million that was approved for the current TUoS tariff period from 01 October 2020 to 30 September 2021. This increase has been dampened by the increase in forecast energy demand (see below).

While the transmission revenue is not collected on a per kWh basis, it is sometimes useful to compare the Average Unit Price (AUP), that is, the total allowed revenue for the relevant tariff year (2021/22) by the forecast energy for the relevant tariff year, measured in c/kWh. The AUP calculation is a way of comparing average unit prices when moving from one tariff period to the next tariff period.

The Transmission Demand Forecast for 2021/22 is 30,600 GWh. This represents a 6% increase against the forecast for 2020/21. The forecast is determined by analysing the current trends in demand on the transmission system, the economic outlook for the forthcoming year, and other aspects such as forecast changes in demand connections. The PR5 forecast demand for 2022 expected 32,058GWh of demand while the demand scenarios published as part of EirGrid's All-Island Generation Capacity Statement (published in August 2020) expected a low demand scenario of 32,100GWh. The most recent demand forecasts are set out in Figure 1 below. As part of future annual tariff setting, the TSO's demand forecasts will be tracked and compared against PR5 forecasts.

---

<sup>18</sup> This is based on the percentage of demand that relates to the relevant period of the year.

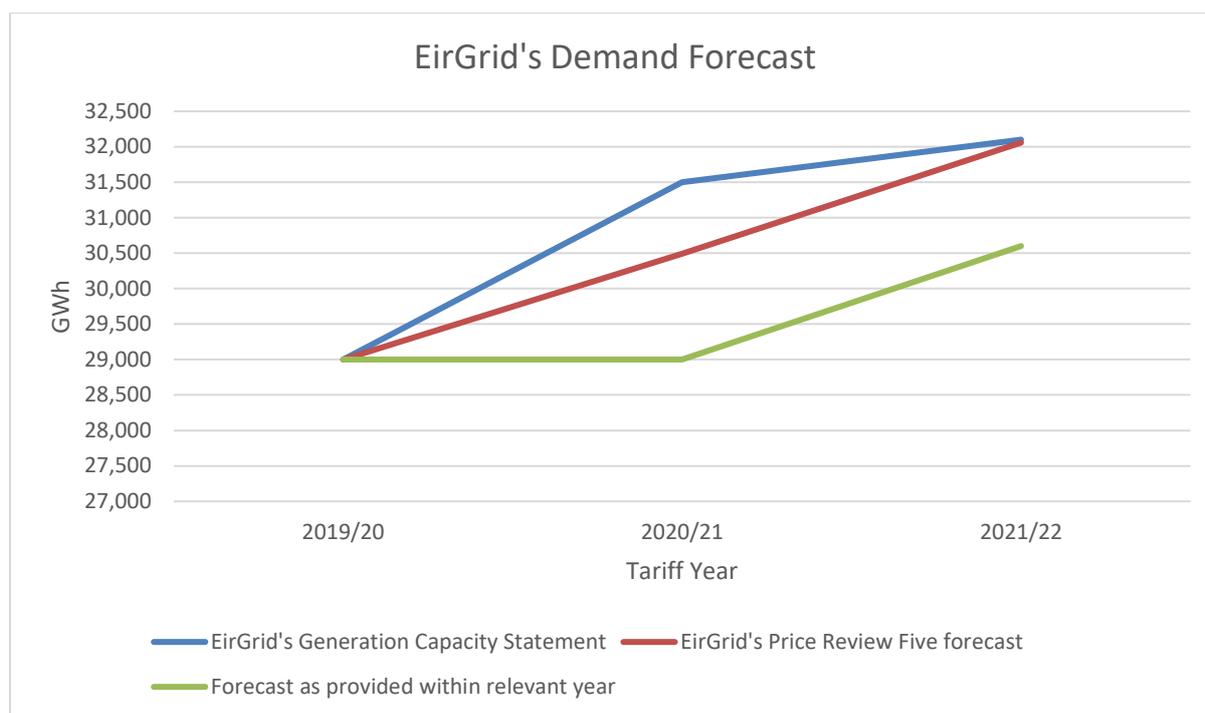


Figure 1 EirGrid's Demand Forecasts

EirGrid has previously noted that the COVID-19 pandemic has caused a downturn in transmission demand compared to forecasts. The pandemic has also caused significant uncertainty in economic outlooks.

### Combined Transmission and Distribution AUP

The combined transmission and distribution AUP for the 2021/2022 period is estimated to be €4.911c/kWh<sup>19</sup>, which is a decrease of circa 0.2% relative to the current AUP.

### Locational Scarcity Scalars

The tariffs for 2021/22 also include the TSO's recommendation for the Locational Scarcity Scalar (LSS) rates for tariff year.<sup>20</sup> The TSO has determined that, following the application of the LSS in October 1 2020, it sees no basis on which to revise the LSS rates and therefore recommends that the LSS rates persist. The CRU expects the TSO to continue to analyse and monitor the operation and effectiveness of the LSS in the coming years.

The resultant Demand Transmission Use of System tariffs and Locational Scarcity Scalars are set out in Appendix A.<sup>21</sup>

<sup>19</sup> This is based on the total tariff year revenue amount/GWh sales.

<sup>20</sup>

<sup>21</sup> Tariff calculations are influenced by Large Energy User rebalancing, as per CER/10/198.

## 5. Summary of 2022 Review

The total transmission allowed revenue for 2022 calendar year as per the annual update is €646.17 million (2022 prices). This is a 20% increase on the 2021 calendar year allowance.

The total transmission allowed revenue for the TUoS tariff period from 01 October 2021 to 30 September 2022 is €617.6 million. This represents an increase of circa 17% relative to the €527.3 million that was approved for recovery for the period from 01 October 2020 to 30 September 2021. However, when the reduction in TAO revenue and the increase in demand are accounted for, the combined transmission and distribution AUP for the 2021/2022 period is estimated to be €4.911c/kWh. This represents a decrease of circa 0.2% compared to the current combined AUP.

The Demand TUoS tariffs that have been approved for implementation during the period from 01 October 2021 to 30 September 2022 are contained in Appendix A of this paper.<sup>22</sup>

---

<sup>22</sup> Tariff calculations are influenced by Large Energy User rebalancing, as per CER/10/198.

## Appendix A

### ▪ A.1 Demand TUoS Tariffs for the Republic of Ireland

In calculating the TUoS Demand Tariffs, which cover the twelve month period from 01 October 2021 to 30 September 2022, EirGrid has applied an energy based weighting to the tariffs derived from the transmission revenue for the calendar year of 2021<sup>23</sup> and the calendar year 2022. The Demand TUoS Tariffs are detailed in Table 11.

The following should be noted when reviewing the table:

- Large Energy Users (LEUs) are defined as Users in the DUoS tariff group DG7, DG8, or DG9; users connected to the 110kV network; or users connected directly to the transmission system.<sup>24</sup>
- Non-Large Energy Users (Non-LEUs) are defined as Users in the DUoS tariff group DG1, DG2, DG3, DG4, DG5, DG5a, DG5b, DG6, DG6a or DG6b.<sup>25</sup>
- DTS-T customers are those directly connected to the transmission system. DTS-T customers are classed as LEUs.<sup>26</sup>
- DTS-D1 customers are those indirectly connected to the transmission system via the distribution system and have a maximum import capacity (MIC) of greater than or equal to 0.5MWs. DTS-D1 customers have the potential to be classed as either LEUs or non-LEUs.<sup>27</sup>
- DTS-D2 customers are those indirectly connected to the transmission system via the distribution system and have a MIC of less than 0.5MWs. DTS-D2 customers have the potential to be classed as either LEUs or non-LEUs.<sup>28</sup>

---

<sup>23</sup> Please refer to 2021 transmission revenue decision paper.

<sup>24</sup> Definition/ Interpretation as per EirGrid's Statement of Charges 2019/2020.

<sup>25</sup> Ibid

<sup>26</sup> Ibid

<sup>27</sup> Ibid

<sup>28</sup> Ibid

Schedule of 2021/2022 Demand TUoS Tariffs:

Table 12: D-TUoS tariffs 2021/22

Schedule	TUoS Charge	Charges	% Variance	Charges	% Variance
		<b>21/22 to be charged to non-LEUs</b>	<b>% change from 20/21 non-LEU tariffs</b>	<b>21/22 to be charged to LEUs<sup>29</sup></b>	<b>% change from 20/21 LEU tariffs</b>
DTS-T	Network Capacity Charge	€1,509.6363/MW	-32.1%	€ 1,320.7355/MW	-30.0%
All Schedules	Network Transfer Charge	€2.7812/MWh	-21.6%	€ 2.4331/MWh	-19.1%
All Schedules	System Services Charge	€ 10.9078/MWh	71.4%	€ 9.5429/MWh	76.6%
DTS-D1	Network Capacity Charge	€ 1,271.1777/MW	-32.1%	€ 1,112.1153/MW	-30.0%
All Schedules	Network Transfer Charge	€2.7812/MWh	-21.6%	€ 2.4331/MWh	-19.1%
All Schedules	System Services Charge	€ 10.9078/MWh	71.4%	€ 9.5429/MWh	76.6%
DTS-D2	Network Capacity Charge	€ 5.9043/MWh	-20.6%	€ 5.1655/MWh	-18.1%
All Schedules	Network Transfer Charge	€2.7812/MWh	-21.6%	€ 2.4331/MWh	-19.1%
All Schedules	System Services Charge	€ 10.9078/MWh	71.4%	€ 9.5429/MWh	76.6%

The full set of Demand tariffs and application of these tariffs will be set out in EirGrid's Statement of Charges to be approved by the CRU and published by EirGrid under Section 36 of the Electricity Regulation Act 1999, before the commencement of the upcoming tariff period.

---

<sup>29</sup> Tariff rebalancing, implemented as per 2009 Government decision, allows for savings of €50m passed on to LEUs and funded by domestic network tariffs. That is the reason of why LEUs' tariffs are slightly lower.

- **A.2. Locational Scarcity Scalars**

The Locational Scarcity Scalar rates for 2021/22 are set out in the table below.

Table 13 Locational Scarcity Scalars 2021/22

Replacement Reserve Desynchronised	Replacement Reserve – Synchronised	Ramping Margin 1	Ramping Margin 3	Steady State Reactive Power	Tertiary Operating Reserve
1.94	1.94	1.94	1.94	1.94	1.94

- **A.3. All-island Generator TUoS Tariffs**

The All-Island Generator TUoS Tariffs for the period 01 October 2021 to 30 September 2022 will be published on EirGrid’s website.