Approved 2021/2022

Generator Transmission Use of System (GTUoS) Tariffs

V1.0

30 August 2021

Introduction

This document accompanies the Approved Generator Transmission Use of System (GTUoS) charges for both Ireland [1] and Northern Ireland [2] as calculated by the Transmission System Operators (TSOs) for the 2021/2022 tariff year and published on the EirGrid and SONI websites on 24 August 2021.

The approved charges are based upon the methodology as consulted on and approved by the Regulatory Authorities (RAs); the Commission for Regulation of Utilities (CRU) in Ireland and the Utility Regulator in Northern Ireland (UR).

The methodology used to calculate the 2021/2022 tariffs is the same as that used for the calculation of the 2020/2021 tariffs. The assumptions used in the GTUoS calculation are based on publicly available information on connected and contracted generation and associated transmission reinforcements. Interconnector flows and conventional generation fuel prices are based on the 2021/2022 Imperfections Revenue Requirement Forecast[3].

Total Revenue Requirement and GTUoS

The revenue requirement is approved annually by the respective regulators in order to ensure recovery of costs associated with the operation, development and planning of the transmission network in a particular tariff year.

The 2021/2022 GTUoS tariffs are based on a revenue requirement of €88,253,162. The overall revenue requirement for GTUoS has decreased by 9.7% relative to the revenue requirement for 2020/2021 tariffs. The breakdown of the approved revenues for recovery in 2021/22 and 2020/21 are summarised in Table 1 below.

Allowed Revenue	2021/22	2020/21	% Change fom 2020/21
IE	€70,628,433	€85,708,344	-17.6%
NI	£15,095,580	£10,904,476	+38.4%
	€17,624,729[4]	€11,984,260[5]	+47.1%[6]
All-Island	**€88,253,162**	**€98,104,022**	**-9.7%**

Table 1: Revenue Requirement

1 https://www.eirgridgroup.com/site-files/library/EirGrid/2122-Approved-GTUoS-Tariffs-v1.pdf
2 https://www.soni.ltd.uk/media/documents/2122-Approved-GTUoS-Tariffs-v1.pdf
3 https://www.semcommittee.com/publications/sem-21-053-imperfections-charge-202122-and-reforecast-report-201920
4 The current exchange rate employed is €1=£0.8565
5 The exchange rate employed in 2020/2021 was €1=£0.9099
6 Sterling increase is +38.4%. Additional Euro increase is due to Exchange Rate Differential.

In terms of the Northern Ireland revenue, the TUoS reflected in the NI amount for 2021/2022 as set out above is as per the Utility Regulator G-TUoS Revenue Allocation Decision Paper.[7]

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There is an on-going need to develop the electricity network on the island of Ireland to ensure security of supply now and into the future. There is an associated cost with this transmission investment which is levied on users of the transmission system via transmission use of system charges for demand and generator customers.

The regulatory approved methodology for GTUoS charging arrangements has been designed to link system usage with the transmission investment costs for different parts of the network. Each Generator's TUoS charge should then be reflective of transmission investment costs linked to its own use of the system.

GTUoS is made up of a postage stamp and locational component. The postage stamp portion is intended to recover a minimum of 70% of the total GTUoS revenue and is applied evenly across all generators, while the locational element is intended to provide for recovery of a maximum of 30%.

The following factors that vary year on year have a major impact on the locational aspect of the tariffs:

- The Overall Revenue Requirement to be recovered via the GTUoS tariffs;
- Power flows (which depend on network configuration and dispatch);
- Levels of generation and the contribution of each generator to the direction of flows on each network reinforcement;
- The assets included in the cost file including the Planned Network development and associated costs; and
- Interconnector flows.

Specific Influencing Factors for 2021/2022 GTUoS Model

On average the 2021/2022 tariffs are lower than the 2020/2021 tariffs. A key factor influencing the majority of the tariff reductions is the reduced revenue requirement.

The 2021/2022 GTUoS tariffs show similar trends to the 2020/2021 tariffs, however, there is a more significant reduction in tariffs in NI.

There are some locational variances, which arise from power flow changes and how these flows are using the assets, which are included in the cost file, in the model.

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[7] https://www.uregni.gov.uk/news-centre/g-tuos-revenue-allocation-decision-paper

As provided for in the methodology there is a 13 year window for inclusion of developments in the model, i.e. October 2014 until September 2027. Since the 2020/21 tariffs were set, significantly more circuits were removed from the cost file in comparison to what has been added, with the majority of those removed in Ireland. These changes have not had any notable effect on the tariffs in any one area as the assets removed were not concentrated in any one area.

There are four dispatch scenarios considered in the GTUoS model, consistent with those used in planning studies:

1. Winter Peak demand, Merit Order dispatch, 0% Wind
2. Summer Peak demand, Merit Order dispatch, 0% Wind
3. Summer Peak demand, Merit Order dispatch, High Wind
4. Summer Minimum demand, Merit Order dispatch, High Wind

The methodology considers these four scenarios, assuming the Median Transmission Peak Demand for 2021, as published in the Generation Capacity Statement 2021-2030. There are five network file study years, from Winter 2022 until Summer 2027.

In terms of the 2021/2022 tariffs; The Ireland tariffs are predominantly influenced by the Summer Minimum High Wind scenario, while the Northern Ireland tariffs are primarily influenced by the Winter Peak Zero Wind scenario.

In the Summer Minimum scenario, a significant influencing factor is the Turleenan - Woodland circuit. In previous years Northern Ireland nodes were contributing to flows on this circuit. For 2021/22, due to the easing of the Moyle Interconnector Export Constraint, the base case direction of flow on this circuit for the Summer Minimum dispatch has reversed, meaning that NI nodes are now offsetting flows on this expensive circuit. This results in a greater reduction in GTUoS tariffs for Generators in NI, in comparison to the reduction for Generators, in other parts of the Transmission Systems. Also, the circuit has again been delayed, and as such has been assumed in the model for two out of the five years for the 2021/22 GTUoS tariff calculations, whereas it was included in the model for three out of the five years for the 2020/21 GTUoS tariff calculations.

GTUoS tariffs tend to be higher in regions which are remote from large demand centres, and in parts of the network which have a large amount of developments built or planned, namely in the North West and the South West of Ireland. GTUoS Tariffs tend to be lower around the East, the North-East of Ireland and Northern Ireland.

A new circuit is planned in the North West of Ireland: Moy-Tonroe 110 kV circuit. This will create a new route from Moy to Flagford via the existing Tonroe 110 kV Station (which is currently only connected to Flagford). The existing Flagford-Tonroe 110 kV circuit is also being uprated. This reinforces the Transmission System in Mayo and has the effect of increasing GTUoS tariffs on a number of stations, in and around that area.

Analysis of tariffs

In this section we look at the overall trends of the approved GTUoS tariffs.

The maximum, minimum and overall range of tariffs is shown in Table 2 below. The postage stamp part of the tariff has decreased (due to decrease in revenue to be recovered).

	21/22 Tariffs €/kW/year	20/21 Tariffs €/kW/year
Postage stamp	€4.6150	€5.2421
Max tariff	€16.1305	€15.9722
Minimum tariff	€4.2871	€5.2421
Range	€11.8434	€10.7300

Table 2: Analysis of Tariffs

The change in the average tariff from last year's tariffs is shown in Table 3 below.

	21/22 €/kW/year	20/21 €/kW/year	% difference
All-Island average	€6.5929	€7.4888	-12%
Ireland average	€7.1155	€7.5861	-6.2%
Northern Ireland average	€4.7667	€7.1381	-33.2%

Table 3: Average Tariffs

The change in the average tariff over the last 5 years is shown in Figure 1.

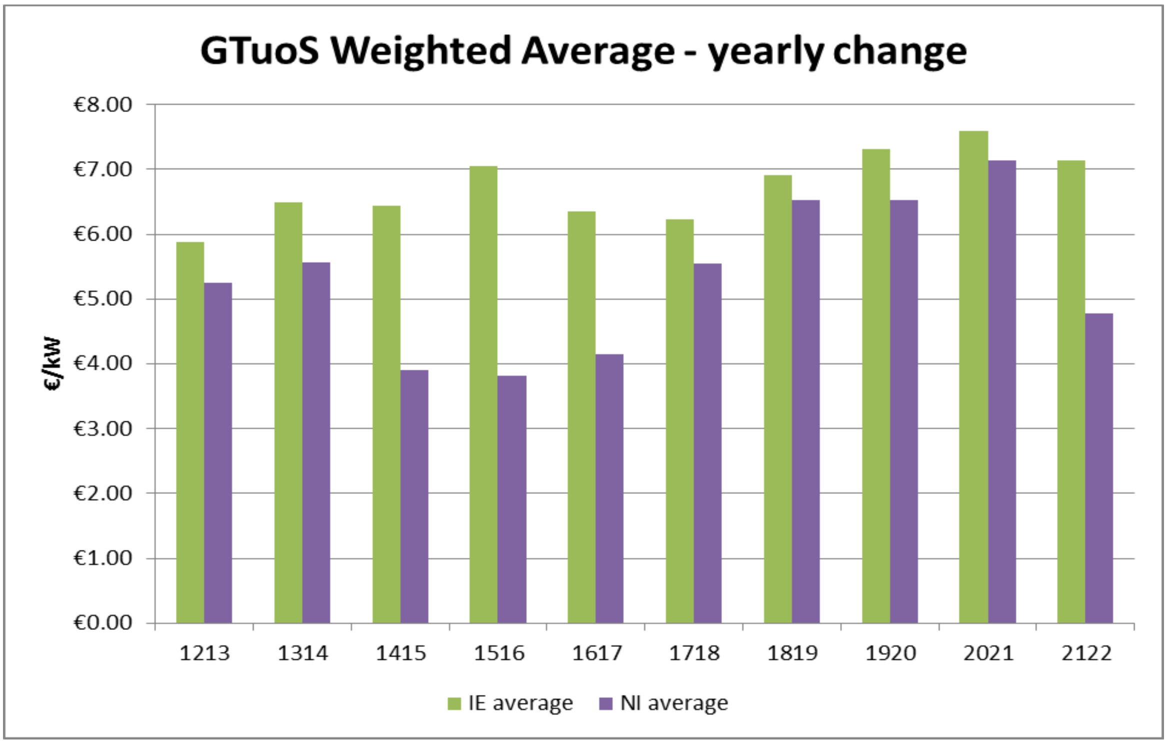

Figure 1: GTUoS Average - yearly change

Contact

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