

Issue	Revision
3	1

The Statement of Use of System Charges Effective from 1 April 2021

Based Upon:

The Statement of the Connection Charging Methodology
and
The Statement of the Use of System Charging Methodology

contained within

Section 14 Parts I and II respectively
of the Connection and Use of System Code

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Introduction

This charging statement is published annually in accordance with the National Grid Electricity System Operator Licence.

This document sets out the annual Transmission Network Use of System (TNUoS) tariffs and charges for 2021/22 and the parameters used to calculate these. This document also includes the Application Fees charged by NGENSO in relation to applications for connection, use of system and engineering works.

You can find further information on the methodology we use and principles which we derive the TNUoS and Connection charges in Section 14 of the Connection and Use of System Code (CUSC) – the **Statement of the Use of System Charging Methodology**. The CUSC is available on our website at:

<https://www.nationalgrideso.com/codes/connection-and-use-system-code-cusc>

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Schedule 1

Transmission Network Use of System Charge (TNUoS)

1. Basis of 2021/22 Transmission Network Use of System Charges

The Transmission Network Use of System Charges for 2021/22 published in this document have been calculated using the methodology described in the Statement of Use of System Charging Methodology. The Onshore generation and demand tariff calculations utilises a Direct Current Load Flow (DCLF) Investment Cost Related Pricing (ICRP) transport and tariff model. Offshore tariffs are calculated at the time of asset transfer and are increased by indexation each year. The offshore tariffs are recalculated at the start of each price control as well as some of the parameters for the onshore tariffs.

The charging year 2021/22 is the first year in the new RIIO-2 price control period for the transmission owners (TOs) and NGESO. In this report, the various parameters have been re-set in line with the CUSC.

A number of regulatory changes have been implemented in the Final Tariffs including, Transmission Generation Residual (TGR). Ofgem's decision on the Targeted Charging Review (TCR) affects TNUoS tariffs in two aspects - TGR via CMP317/327 and the Transmission Demand Residual (TDR).

The TGR changes are to be implemented from April 2021 and affect generation residual tariffs, while the TDR changes are expected to be implemented from April 2022. As such, we have incorporated the decision of CMP317/327 for TGR in the Final Tariffs.

In addition, we have also incorporated Ofgem's decisions on:

- CMP324/325 – Generation Rezoning
- CMP353 - Stabilising the Expansion Constant and non-specific Onshore Expansion Factors
- CMP355/356 – Updating the Indexation methodology for RIIO2
- CMP357 – To improve accuracy of the Locational Security Factor

If you would like further details on how the TNUoS tariffs have been calculated, changes that have been implemented and the parameters used to set tariffs, you can find it in our 2021/22 Final TNUoS report here:

<https://www.nationalgrideso.com/document/186176/download>

The following tables provide a summary of some of the parameters utilised to calculate tariffs. The parameters have been reset for the RIIO-2 price control.

Table 1.1: TNUoS Calculation Parameters

Parameter	Value/Basis
Transport model network, nodal generation & nodal demand data	Based upon various data sources as defined in Section 14 of the Connection and Use of System Code (CUSC)
Expansion constant	£15.050736 /MWkm
Annuity factor	4.2%
Overhead factor	1.5%
Locational onshore security factor	1.76
Offshore civil engineering discount	£ 0.596290/kW

Table 1.2: Onshore Wider Cable and Overhead Line (OHL) Expansion Factors

TO Region	Cable Expansion Factor			OHL Expansion Factor		
	400kV	275kV	132kV	400kV	275kV	132kV
Scottish Hydro Electric Transmission Ltd	10.20	11.45	20.77	1.00	1.20	2.59
SP Transmission Ltd	10.20	11.45	22.58	1.00	1.20	2.87
National Grid Electricity Transmission plc	10.20	11.45	22.58	1.00	1.20	2.87

Table 1.3 Onshore Local Expansion Factors (All TO Regions)

2dp	400kV	275kV	132kV			
			Single Circuit <200MVA	Double Circuit <200MVA	Single Circuit >=200MVA	Double Circuit >=200MVA
Cable Expansion Factor	10.20	11.45	22.58	22.58	22.58	22.58
OHL Expansion Factor	1.00	1.20	10.33	8.388	5.912	3.950

Table 1.4 Offshore Local Expansion Factors

Offshore Power Station	Local Expansion Factor (to 2 d.p.)
Barrow	103.04
Burbo Bank Ext	25.15
Dudgeon	19.49
Greater Gabbard	46.94, 44.78
Galloper	18.22
Gunfleet	89.94
Gwynt Y Môr	42.96
Humber Gateway	41.05
Lincs	69.97
London Array	48.99
Ormonde	76.22
Robin Rigg East	312.34
Robin Rigg West	312.34
Sheringham Shoal	45.31
Thanet	75.34
Walney 1	66.04
Walney 2	59.27
Walney 3	16.39
Walney 4	19.68
West of Duddon Sands	61.71
Westermost Rough	80.72

Further Offshore Local Expansion Factors applicable to generation connecting to offshore transmission infrastructure during 2021/22 will be published in future revisions of this statement following the completion of asset transfer.

2. Schedule of Transmission Network Use of System Wider Zonal Generation Charges (£/kW) in 2021/22

This section summarises the generation tariffs. The tariffs include the implementation of Ofgem's decision for the Transmission Generation Residual (TGR) which does increase the amount generators pay for TNUoS compared to 2020/21.

On 21 November 2019, the Authority published their final decision on the Targeted Charging Review (TCR) and issued Directions to NGENSO to raise changes to the charging methodology to give effect to that final decision.

Under the TCR, the two changes for TNUoS tariff setting and charges are:

- The removal of the generation residual, which is currently used to keep total TNUoS recovery from generators within the range of €0-2.50/MWh. This change has been managed under CMP317/327, with the final decision being announced by Ofgem on 17 December 2020, which seeks to ensure ongoing compliance with European Regulation by establishing which charges are, and are not in scope of that range;
- The creation of specific NHH and HH demand residual charges, levied only to final demand (which is consumption not used either to operate a generating station, or to store and export), and on a 'site' basis. CMP343 (which replaced CMP332 (Transmission Demand Residual bandings and allocation)) was raised and approved to modify the CUSC methodology accordingly. This is due to take effect from April 2022.

Our 2021/22 Final tariffs have implemented CMP317/327 which will take effect from April 2021. The TGR has been set to £0/kW but an adjustment has been introduced to ensure generation charges are still compliant with the cap.

As per Ofgem's decision on TGR, all Local Charges for Local Circuits and Local Substations paid by generators have been excluded for the purposes of assessing compliance with the €0-2.50/MWh range.

The following table provides the Wider Zonal Generation TNUoS tariffs applicable from 1 April 2021.

Table 1.5 Wider Zonal Generation TNUoS Tariffs

		Tariffs (£/kW)							
							Example tariffs for a generator of each technology type		
Zone	Zone Name	System Peak	Shared Year Round	Not Shared Year Round	Adjustment	Conventional Carbon 80% Tariff (£/kW)	Conventional Low Carbon 80% Tariff (£/kW)	Intermittent 40% Tariff (£/kW)	
1	North Scotland	4.126082	19.849130	18.845468	- 0.432600	34.649160	38.418254	26.352520	
2	East Aberdeenshire	3.151849	10.476562	18.845468	- 0.432600	26.176873	29.945967	22.603493	
3	Western Highlands	3.841775	18.124856	18.137065	- 0.432600	32.418712	36.046125	24.954407	
4	Skye and Lochalsh	- 0.600287	18.124856	19.911917	- 0.432600	29.396531	33.378915	26.729259	
5	Eastern Grampian and Tayside	4.627928	13.372520	15.294671	- 0.432600	27.129081	30.188015	20.211079	
6	Central Grampian	4.271604	14.302078	16.361775	- 0.432600	28.370086	31.642441	21.650006	
7	Argyll	2.644528	12.371769	24.994839	- 0.432600	32.105214	37.104182	29.510947	
8	The Trossachs	3.758239	12.371769	14.104429	- 0.432600	24.506597	27.327483	18.620537	
9	Stirlingshire and Fife	2.666380	10.932125	12.879423	- 0.432600	21.283018	23.858903	16.819673	
10	South West Scotlands	2.952740	11.283085	13.150169	- 0.432600	22.066743	24.696777	17.230803	
11	Lothian and Borders	2.920257	11.283085	6.510723	- 0.432600	16.722703	18.024848	10.591357	
12	Solway and Cheviot	2.524162	7.605300	7.294685	- 0.432600	14.011550	15.470487	9.904205	
13	North East England	3.345180	5.886920	4.405551	- 0.432600	11.146557	12.027667	6.327719	
14	North Lancashire and The Lakes	2.484799	5.886920	1.250164	- 0.432600	7.761866	8.011899	3.172332	
15	South Lancashire, Yorkshire and Humber	3.791173	2.396756	0.347999	- 0.432600	5.554377	5.623977	0.874101	
16	North Midlands and North Wales	3.167807	0.864623	-	- 0.432600	3.426905	3.426905	- 0.086751	
17	South Lincolnshire and North Norfolk	1.311261	1.550670	-	- 0.432600	2.119197	2.119197	0.187668	
18	Mid Wales and The Midlands	1.624967	1.788458	-	- 0.432600	2.623133	2.623133	0.282783	
19	Anglesey and Snowdon	4.790020	1.007415	-	- 0.432600	5.163352	5.163352	- 0.029634	
20	Pembrokeshire	7.437664	- 6.301681	-	- 0.432600	1.963719	1.963719	- 2.953272	
21	South Wales & Gloucester	3.411188	- 6.636984	-	- 0.432600	- 2.330999	- 2.330999	- 3.087394	
22	Cotswold	2.274785	3.515931	- 8.455582	- 0.432600	- 2.109536	- 3.800652	- 7.481810	
23	Central London	- 3.681071	3.515931	- 5.511826	- 0.432600	- 5.710387	- 6.812752	- 4.538054	
24	Essex and Kent	- 3.332257	3.515931	-	- 0.432600	- 0.952112	- 0.952112	- 0.973772	
25	Oxfordshire, Surrey and Sussex	- 0.985430	- 1.875819	-	- 0.432600	- 2.918685	- 2.918685	- 1.182928	
26	Somerset and Wessex	- 2.246762	- 3.309922	-	- 0.432600	- 5.327300	- 5.327300	- 1.756569	
27	West Devon and Cornwall	- 2.524900	- 8.311269	-	- 0.432600	- 9.606515	- 9.606515	- 3.757108	

Please note that these tariffs include the implementation of CMP317/327

The System Peak, Shared Year-Round and Not Shared Year Round tariffs are locational elements that reflect the cost of providing incremental capacity to generation on an area of the main integrated onshore transmission system. The non-locational adjustment ensures that the appropriate amount of transmission revenue is recovered from generators within the EU cap of €0-€2.50/MWh.

For conventional low-carbon generation technologies, the wider zonal generation tariff is the sum of the Peak Tariff, the Shared Year-Round Tariff scaled by the generator's Annual Load Factor, the Not Shared Year-Round Tariff and the Adjustment Tariff.

For conventional carbon generation technology, the wider zonal generation tariff is the sum of the Peak Tariff and the Adjustment Tariff, and the Shared Year-Round Tariff and Shared Not Year-Round Tariff scaled by the generator's Annual Load Factor (ALF).

For intermittent generation technologies, the wider zonal generation tariff is the sum of the Shared Year-Round Tariff scaled by the generator's Annual Load Factor, the Not Shared Year-Round Tariff and the Adjustment Tariff.

The 80% and 40% ALFs used in this table for the Conventional Carbon, Conventional Low Carbon and Intermittent example tariffs are for illustration only. Tariffs for individual generators are calculated using their own ALF.

Wider generation charges are charged based on which zone the transmission substation is in that the generator connects to. The tariffs are also calculated for each specific generator based on their ALF.

3. Schedule of Annual Load Factors for 2021/22

The below tables show the final Annual Load Factors (ALFs) to be used in the calculation of generator TNUoS tariffs for 2021/22, effective from 1 April 2021. The ALFs are based on generation data for the last five years from 2015/16 until 2019/20. Where historic data is not available for a new or mothballed station, we use a generic ALF corresponding to the station's generation technology type.

Table 1.6 Annual Load Factors

Power Station	Technology	Specific ALF
ABERDEEN	Offshore_Wind	0.459201
ABERTHAW	Coal	0.200355
ACHRUACH	Onshore_Wind	0.437235
AFTON	Onshore_Wind	0.423721
AIKENGALL II	Onshore_Wind	0.273976
AN SUIDHE	Onshore_Wind	0.36596
ARECLEOCH	Onshore_Wind	0.332021
BAD A CHEO	Onshore_Wind	0.339353
BAGLAN BAY	CCGT_CHP	0.23717
BARROW	Offshore_Wind	0.441087
BARRY	-	0.009167
BEATRICE	Offshore_Wind	0.546014
BEAULY CASCADE	Hydro	0.333346
BEINNEUN	Onshore_Wind	0.338724
BHLARAIDH	Onshore_Wind	0.417879
BLACK LAW	Onshore_Wind	0.253258
BLACKCRAIG WINDFARM	Onshore_Wind	0.422204
BLACKLAW EXTENSION	Onshore_Wind	0.332415
BRIMSDOWN	CCGT_CHP	0.35618
BURBO BANK EXT	Offshore_Wind	0.388945
CARRAIG GHEAL	Onshore_Wind	0.456366
CARRINGTON	CCGT_CHP	0.607485
CLUNIE	Hydro	0.390925
CLYDE (NORTH)	Onshore_Wind	0.407209
CLYDE (SOUTH)	Onshore_Wind	0.375893
CONNAHS QUAY	CCGT_CHP	0.224702
CONON CASCADE	Hydro	0.530174
CORBY	CCGT_CHP	0.022486
CORRIEGARTH	Onshore_Wind	0.440467
CORRIEMOILLIE	Onshore_Wind	0.325304
CORYTON	CCGT_CHP	0.296559
COTTAM	Coal	0.170095
COTTAM DEVELOPMENT CENTRE	CCGT_CHP	0.597107

Power Station	Technology	Specific ALF
COUR	Onshore_Wind	0.56305
COWES	Gas_Oil	0.003705
CRUACHAN	Pumped_Storage	0.08029
CRYSTAL RIG II	Onshore_Wind	0.489674
CRYSTAL RIG III	Onshore_Wind	0.517679
DAMHEAD CREEK	CCGT_CHP	0.578848
DEESIDE	CCGT_CHP	0.127581
DERSALLOCH	Onshore_Wind	0.373895
DIDCOT B	CCGT_CHP	0.481671
DIDCOT GTS	Gas_Oil	0.005443
DINORWIG	Pumped_Storage	0.140282
DORENELL	Onshore_Wind	0.435608
DRAX	Coal	0.563731
DUDGEON	Offshore_Wind	0.494474
DUNGENESS B	Nuclear	0.596216
DUNLAW EXTENSION	Onshore_Wind	0.291504
DUNMAGLASS	Onshore_Wind	0.592137
EAST ANGLIA 1	Offshore_Wind	0.43093
EDINBANE WIND	Onshore_Wind	0.34087
ERROCHTY	Hydro	0.202131
EWE HILL	Onshore_Wind	0.342428
FALLAGO	Onshore_Wind	0.497286
FARR WINDFARM	Onshore_Wind	0.396166
FASNAKYLE G1 & G3	Hydro	0.449933
FAWLEY CHP	CCGT_CHP	0.657066
FFESTINIOG	Pumped_Storage	0.035245
FIDDLERS FERRY	Coal	0.131608
FINLARIG	Hydro	0.606384
FOYERS	Pumped_Storage	0.135886
FREASDAIL	Onshore_Wind	0.405011
GALAWHISTLE	Onshore_Wind	0.466345
GALLOPER	Offshore_Wind	0.542685
GARRY CASCADE	Hydro	0.591084
GLANDFORD BRIGG	CCGT_CHP	0.015635
GLEN APP	Onshore_Wind	0.243816
GLENDOE	Hydro	0.301571
GLENMORISTON	Hydro	0.42469
GORDONBUSH	Onshore_Wind	0.425797
GRAIN	CCGT_CHP	0.464493
GRANGEMOUTH	CCGT_CHP	0.603831
GREAT YARMOUTH	CCGT_CHP	0.544974
GREATER GABBARD	Offshore_Wind	0.456592
GRIFFIN WIND	Onshore_Wind	0.279493

Power Station	Technology	Specific ALF
GUNFLEET SANDS I	Offshore_Wind	0.461968
GUNFLEET SANDS II	Offshore_Wind	0.453413
GWYNT Y MOR	Offshore_Wind	0.468506
HADYARD HILL	Onshore_Wind	0.330017
HARESTANES	Onshore_Wind	0.268897
HARTLEPOOL	Nuclear	0.790086
HEYSHAM	Nuclear	0.796386
HINKLEY POINT B	Nuclear	0.744689
HORNSEA 1A	Offshore_Wind	0.449232
HORNSEA 1B	Offshore_Wind	0.483857
HORNSEA 1C	Offshore_Wind	0.48106
HUMBER GATEWAY	Offshore_Wind	0.55006
HUNTERSTON	Nuclear	0.620414
IMMINGHAM	CCGT_CHP	0.702394
INDIAN QUEENS	Gas_Oil	0.00077
J G PEARS	Biomass	0.431337
KEADBY	CCGT_CHP	0.358907
KEITH HILL	Onshore_Wind	0.285447
KILBRAUR	Onshore_Wind	0.488949
KILGALLIOCH	Onshore_Wind	0.383891
KILLIN CASCADE	Hydro	0.395187
KILLINGHOLME (POWERGEN)	Gas_Oil	0.008137
KINGS LYNN A	CCGT_CHP	0.241488
KYPE MUIR	Onshore_Wind	0.355565
LANGAGE	CCGT_CHP	0.319598
LINCS WIND FARM	Offshore_Wind	0.488925
LITTLE BARFORD	CCGT_CHP	0.560256
LOCHLUICHART	Onshore_Wind	0.328942
LONDON ARRAY	Offshore_Wind	0.500232
LYNEMOUTH	Biomass	0.591486
MARCHWOOD	CCGT_CHP	0.649103
MARK HILL	Onshore_Wind	0.305315
MEDWAY	CCGT_CHP	0.322531
MIDDLE MUIR	Onshore_Wind	0.385181
MILLENNIUM	Onshore_Wind	0.52058
MINNYGAP	Onshore_Wind	0.325132
NANT	Hydro	0.354365
ORMONDE	Offshore_Wind	0.416563
PEMBROKE	CCGT_CHP	0.684575
PEN Y CYMOEDD	Onshore_Wind	0.359455
PETERBOROUGH	CCGT_CHP	0.009254
PETERHEAD	CCGT_CHP	0.515148
POGBIE	Onshore_Wind	0.324024

Power Station	Technology	Specific ALF
RACE BANK	Offshore_Wind	0.456173
RAMPION	Offshore_Wind	0.372908
RATCLIFFE-ON-SOAR	Coal	0.172324
ROBIN RIGG EAST	Offshore_Wind	0.443745
ROBIN RIGG WEST	Offshore_Wind	0.469769
ROCKSAVAGE	CCGT_CHP	0.334005
RYE HOUSE	CCGT_CHP	0.099678
SALTEND	CCGT_CHP	0.718558
SANQUHAR	Onshore_Wind	0.480594
SEABANK	CCGT_CHP	0.338568
SELLAFIELD	CCGT_CHP	0.140972
SEVERN POWER	CCGT_CHP	0.405006
SHERINGHAM SHOAL	Offshore_Wind	0.511338
SHOREHAM	CCGT_CHP	0.41783
SIZEWELL B	Nuclear	0.865351
SLOY G2 & G3	Hydro	0.119329
SOUTH HUMBER BANK	CCGT_CHP	0.462116
SPALDING	CCGT_CHP	0.522674
SPALDING ENERGY EXPANSION	CCGT_CHP	0.385444
STAYTHORPE	CCGT_CHP	0.607477
STRATHY NORTH & SOUTH	Onshore_Wind	0.382451
STRONELAIRG	Onshore_Wind	0.445581
SUTTON BRIDGE	CCGT_CHP	0.260096
TAYLORS LANE	Gas_Oil	0.003629
THANET	Offshore_Wind	0.385421
TODDLBURN	Onshore_Wind	0.356859
TORNESS	Nuclear	0.895895
USKMOUTH	Coal	0.081471
WALNEY 4	Offshore_Wind	0.505463
WALNEY I	Offshore_Wind	0.482491
WALNEY II	Offshore_Wind	0.52808
WALNEY III	Offshore_Wind	0.523843
WEST BURTON	Coal	0.107425
WEST BURTON B	CCGT_CHP	0.588141
WEST OF DUDDON SANDS	Offshore_Wind	0.494779
WESTERMOST ROUGH	Offshore_Wind	0.563579
WHITELEE	Onshore_Wind	0.305706
WHITELEE EXTENSION	Onshore_Wind	0.261989
WHITESIDE HILL	Onshore_Wind	0.51265
WILTON	CCGT_CHP	0.162885
WINDY STANDARD II	Onshore_Wind	0.487322

Table 1.7 Generic Annual Load Factors

Technology	Generic ALF
Gas_Oil	0.4602%
Pumped_Storage	9.7926%
Tidal	23.1000%
Biomass	49.5396%
Wave	2.9000%
Onshore Wind	36.0719%
CCGT_CHP	51.0635%
Hydro	41.8887%
Offshore Wind	49.4981%
Coal	20.3859%
Nuclear	75.8434%
Solar	10.8000%

These Generic ALFs are calculated in accordance with CUSC 14.15.110. For 2021/22, we have now included a generic ALF for solar.

Includes OCGTs (Open Cycle Gas Turbine generating plant).

*Note: due to no metered data being available the Generic ALF values for Wave, Tidal and Solar technologies are taken from the BEIS publication [‘THE RENEWABLES OBLIGATION: Calculating the level of the Renewables Obligation for 2021/22’](#).

4. Schedule of Transmission Network Use of System Local Substation Generation Charges (£/kW) in 2021/22

The following table provides the Local Substation Generation TNUoS tariffs applicable to all generation directly connected to the onshore GB Transmission Network from 1 April 2021

Table 1.8 Onshore Local Substation Tariffs (£/kW)

2021/22 Local Substation Tariff (£/kW)				
Substation Rating	Connection Type	132kV	275kV	400kV
<1320 MW	No redundancy	0.146752	0.073379	0.050613
<1320 MW	Redundancy	0.309223	0.157059	0.111522
>=1320 MW	No redundancy	N/A	0.215587	0.153492
>=1320 MW	Redundancy	N/A	0.324421	0.233338

The above tariffs reflect the cost of the transmission substation equipment provided to facilitate generation connecting to an onshore substation. The tariffs have been updated for the RIIO-2 price control period.

The following table provides the Local Substation Generation TNUoS tariffs applicable to generation connecting to offshore transmission infrastructure from 1 April 2021.

Table 1.9 Offshore Local Substation Tariffs (£/kW)

Offshore Generator	Substation
Barrow	8.836174
Burbo Bank	11.045154
Dudgeon	16.155283
Galloper	16.537117
Greater Gabbard	16.473633
Gunfleet	19.229393
Gwynt Y Mor	20.741455
Humber Gateway	12.206462
Lincs	16.957830
London Array	11.499568
Ormonde	27.167399
Race Bank	9.783195
Robin Rigg	- 0.596290
Robin Rigg West	- 0.596290
Sheringham Shoal	25.417212
Thanet	19.409235
Walney 1	23.46442
Walney 2	21.83020
Walney 3	10.04935
Walney 4	10.04935
West of Duddon Sands	8.98738
Westermost Rough	18.27433

Further local substation tariffs applicable to generation connecting to offshore transmission infrastructure during 2021/22 will be published in future revisions of this statement following the completion of asset transfer.

5. Schedule of Transmission Network Use of System Local Circuit Charges (£/kW) in 2021/22

Where a transmission-connected generator is not directly connected to the Main Interconnected Transmission System (MITS) nodes, the onshore local circuit tariffs reflect the cost and flows on circuits between its connection and the MITS nodes. Local circuit tariffs can change as a result of system power flows and TNUoS parameters. Depending on the topology, onshore local circuits with circuit redundancy had tariff changes as a result of CMP357, which changed with the security factor from 1.8 to 1.76. Onshore local circuit tariffs are listed in the table below.

Table 1.10 Onshore Local Circuit Tariffs

Substation Name	(£/kW)	Substation Name	(£/kW)	Substation Name	(£/kW)
Aberarder	1.687707	Dunhill	1.428190	Marchwood	0.380561
Aberdeen Bay	2.599821	Dunlaw Extension	1.506420	Mark Hill	0.892884
Achruach	4.281723	Edinbane	6.979995	Middle Muir	2.343260
Aigas	0.666962	Ewe Hill	2.482000	Middleton	0.151561
An Suidhe	-0.957481	Fallago	0.436827	Millennium South	- 0.466475
Arecleoch	2.118020	Farr	3.555132	Millennium Wind	1.861916
Baglan Bay	-0.144809	Fernoch	4.485470	Moffat	0.194223
Beinneun Wind Farm	1.531122	Ffestiniogg	0.252269	Mossford	2.870988
Bhlaraidh Wind Farm	0.658421	Finlarig	0.326533	Nant	- 1.252189
Black Hill	1.548514	Foyers	0.292072	Necton	1.120435
Black Law	1.781935	Galawhistle	3.568307	New Deer	0.189751
BlackCraig Wind Farm	6.419564	Glen Kyllachy	- 0.466475	Rhigos	0.105170
BlackLaw Extension	3.778824	Glendoe	1.875799	Rocksavage	0.018050
Clyde (North)	0.111836	Glenglass	4.797660	Saltend	0.017301
Clyde (South)	0.129333	Gordonbush	0.069371	Sandy Knowe	2.378871
Corriegarth	2.954342	Griffin Wind	9.683862	South Humber Bank	- 0.184873
Corriemoillie	1.658940	Hadyard Hill	2.822639	Spalding	0.282588
Coryton	0.050448	Harestanes	2.577911	Strathbrora	- 0.048161
Cruachan	1.819382	Hartlepool	0.088865	Strathy Wind	1.778564
Crystal Rig	0.140871	Invergarry	0.373180	Stronelairg	1.089736
Culligran	1.767466	Kilgallioch	1.073265	Wester Dod	0.487877
Deanie	2.903694	Kilmorack	0.201399	Whitelee	0.108228
Dersalloch	2.456454	Kype Muir	1.512589	Whitelee Extension	0.300875
Dinorwig	2.392364	Langage	- 0.336194		
Dorenell	2.092586	Lochay	0.373180		
Dumnaglass	1.155822	Luichart	0.571838		

The following table provides the Local Circuit Generation TNUoS tariffs applicable to generation connecting to offshore transmission infrastructure from 1 April 2021.

Table 1.11 Offshore Local Circuit Tariffs

Offshore Generator	Circuit
Barrow	46.681052
Burbo Bank	21.346898
Dudgeon	25.347887
Galloper	26.155151
Greater Gabbard	38.093075
Gunfleet	17.732950
Gwynt Y Mor	20.506705
Humber Gateway	28.005823
Lincs	66.640797
London Array	39.427611
Ormonde	50.781758
Race Bank	27.172426
Robin Rigg	33.846655
Robin Rigg West	33.846655
Sheringham Shoal	29.935300
Thanet	36.363246
Walney 1	46.91135
Walney 2	44.42664
Walney 3	20.35939
Walney 4	20.35939
West of Duddon Sands	44.80090
Westermost Rough	31.10058

Further local circuit tariffs applicable to generation connecting to offshore transmission infrastructure during 2021/22 will be published in future revisions of this statement following the completion of asset transfer.

6. Schedule of Transmission Network Use of System STTEC and LDTEC Charges in 2021/22

The following table provides the Short-Term Transmission Entry Capacity (STTEC) and Limited Duration Transmission Entry Capacity (LDTEC) tariffs applicable to generators from 1 April 2021.

Table 1.12 Short Term Transmission Entry Capacity (STTEC) and Limited Duration Transmission Entry Capacity (LDTEC) tariffs

Power Station	LDTEC Tariff (£/kW/Week)		STTEC Tariff (£/kW)		
	Higher Rate	Lower Rate	28 Days	35 Days	42 Days
Abedare	0.000000	0.000000	0.000000	0.000000	0.000000
Aberarder Wind Farm	1.431178	0.104661	5.724712	7.155890	8.587068
Aberdeen Offshore Wind Farm	1.581690	0.115668	6.326760	7.908450	9.490140
Aberthaw	0.094809	0.006933	0.379236	0.474045	0.568854
Afton Wind Farm	1.016200	0.074314	4.064800	5.081000	6.097200
Aigas (part of the Beaulieu Cascade)	1.573388	0.115061	6.293552	7.866940	9.440328
Aikengall Ila Wind Farm	0.566096	0.041398	2.264384	2.830480	3.396576
Aikengall II Windfarm	0.514712	0.037641	2.058848	2.573560	3.088272
An Suidhe Wind Farm, Argyll (SRO)	1.484652	0.108571	5.938608	7.423260	8.907912
Arecleoch	0.983250	0.071904	3.933000	4.916250	5.899500
Bad a Cheo Wind Farm	1.328013	0.097117	5.312052	6.640065	7.968078
Baglan Bay	0.074379	0.005439	0.297516	0.371895	0.446274
Barrow Offshore Wind Farm	3.154756	0.230705	12.619024	15.773780	18.928536
Beatrice Wind Farm	1.535665	0.112302	6.142660	7.678325	9.213990
Beinneun Wind Farm	1.339887	0.097985	5.359548	6.699435	8.039322
Bhlaraidh Wind Farm	1.369391	0.100143	5.477564	6.846955	8.216346
Blackcraig Wind Farm	1.262502	0.092326	5.050008	6.312510	7.575012
Blacklaw	0.570378	0.041711	2.281512	2.851890	3.422268
Blacklaw Extension	0.722104	0.052807	2.888416	3.610520	4.332624
Burbo Bank Extension Offshore Wind Farm	1.695526	0.123993	6.782104	8.477630	10.173156
Bustleholme	0.080040	0.005853	0.320160	0.400200	0.480240
Capenhurst 275KV Substation	0.151896	0.011108	0.607584	0.759480	0.911376
Carraig Gheal Wind Farm	1.829127	0.133763	7.316508	9.145635	10.974762
Carrington Power Station	0.177029	0.012946	0.708116	0.885145	1.062174
CDCL	0.176558	0.012912	0.706232	0.882790	1.059348
Clunie (part of the Clunie Cascade)	1.305381	0.095462	5.221524	6.526905	7.832286
Clyde North	0.570040	0.041687	2.280160	2.850200	3.420240
Clyde South	0.552409	0.040397	2.209636	2.762045	3.314454
Connahs Quay	0.166048	0.012143	0.664192	0.830240	0.996288
Corby	0.064711	0.004732	0.258844	0.323555	0.388266
Corriegarh	1.588485	0.116165	6.353940	7.942425	9.530910
Corriemoillie Wind Farm	1.408997	0.103039	5.635988	7.044985	8.453982
Coryton	0.000000	0.000000	0.000000	0.000000	0.000000

Power Station	LDTEC Tariff (£/kW/Week)		STTEC Tariff (£/kW)		
	Higher Rate	Lower Rate	28 Days	35 Days	42 Days
Cour Wind Farm	1.671463	0.122233	6.685852	8.357315	10.028778
Coventry	0.080040	0.005853	0.320160	0.400200	0.480240
Cowes	0.000000	0.000000	0.000000	0.000000	0.000000
Cowley	0.000000	0.000000	0.000000	0.000000	0.000000
Crookedstane Windfarm	0.539568	0.039458	2.158272	2.697840	3.237408
Crossdykes	0.634592	0.046407	2.538368	3.172960	3.807552
Cruachan	0.385569	0.028196	1.542276	1.927845	2.313414
Crystal Rig III Wind Farm	0.639005	0.046730	2.556020	3.195025	3.834030
Crystal Rig II Wind Farm	0.622416	0.045517	2.489664	3.112080	3.734496
Culligran (part of the Beaulieu Cascade)	1.631164	0.119286	6.524656	8.155820	9.786984
Damhead Creek	0.000000	0.000000	0.000000	0.000000	0.000000
Damhead Creek 2	0.000000	0.000000	0.000000	0.000000	0.000000
Deanie (part of the Beaulieu Cascade)	1.690816	0.123648	6.763264	8.454080	10.144896
Deeside Power Station	0.161640	0.011821	0.646560	0.808200	0.969840
Dersalloch Wind Farm	1.025822	0.075018	4.103288	5.129110	6.154932
Derwent	0.110545	0.008084	0.442180	0.552725	0.663270
Didcot B	0.000000	0.000000	0.000000	0.000000	0.000000
Dinorwig	0.369841	0.027046	1.479364	1.849205	2.219046
Dorenell Windfarm	1.538179	0.112486	6.152716	7.690895	9.229074
Douglas West	0.549012	0.040149	2.196048	2.745060	3.294072
Drax (Biomass)	0.269809	0.019731	1.079236	1.349045	1.618854
Drax (Coal)	0.269809	0.019731	1.079236	1.349045	1.618854
Dudgeon Offshore Wind Farm	2.255283	0.164927	9.021132	11.276415	13.531698
Dungeness B	0.000000	0.000000	0.000000	0.000000	0.000000
Dunlaw Extension	0.578569	0.042310	2.314276	2.892845	3.471414
Dunmaglass Wind Farm	1.652114	0.120818	6.608456	8.260570	9.912684
East Anglia One	0.017750	0.001298	0.071000	0.088750	0.106500
Edinbane Wind, Skye	1.721175	0.125868	6.884700	8.605875	10.327050
Enfield	0.000000	0.000000	0.000000	0.000000	0.000000
Errochty	1.172837	0.085769	4.691348	5.864185	7.037022
Ewe Hill	0.634993	0.046437	2.539972	3.174965	3.809958
Fallago Rig Wind Farm	0.642463	0.046983	2.569852	3.212315	3.854778
Farr Wind Farm, Tomatin	1.573861	0.115095	6.295444	7.869305	9.443166
Fasnakyle G1 & G2	1.563166	0.114313	6.252664	7.815830	9.378996
Fawley CHP	0.000000	0.000000	0.000000	0.000000	0.000000
Ffestiniog	0.162295	0.011868	0.649180	0.811475	0.973770
Finlarig	1.540697	0.112670	6.162788	7.703485	9.244182
Firth of Forth Phase 1	1.127764	0.082473	4.511056	5.638820	6.766584
Foyers	0.489142	0.035771	1.956568	2.445710	2.934852
Freasdail	1.568814	0.114726	6.275256	7.844070	9.412884
Galawhistle Wind Farm	0.798917	0.058424	3.195668	3.994585	4.793502

Power Station	LDTEC Tariff (£/kW/Week)		STTEC Tariff (£/kW)		
	Higher Rate	Lower Rate	28 Days	35 Days	42 Days
Galloper Wind Farm	2.269587	0.165973	9.078348	11.347935	13.617522
Glen App Windfarm	0.931000	0.068083	3.724000	4.655000	5.586000
Glendoe	1.524323	0.111473	6.097292	7.621615	9.145938
Glen Kyllachy Wind Farm	1.325788	0.096954	5.303152	6.628940	7.954728
Glenmoriston (part of the Moriston Cascade)	1.542998	0.112838	6.171992	7.714990	9.257988
Gordonbush Wind Farm	1.417884	0.103689	5.671536	7.089420	8.507304
Grain	0.000000	0.000000	0.000000	0.000000	0.000000
Grangemouth CHP	0.872126	0.063778	3.488504	4.360630	5.232756
Greater Gabbard Offshore Wind Farm	2.884912	0.210971	11.539648	14.424560	17.309472
Great Yarmouth	0.113769	0.008320	0.455076	0.568845	0.682614
Griffin Wind Farm	1.501116	0.109775	6.004464	7.505580	9.006696
Gunfleet Sands II Offshore Wind Farm	2.134390	0.156086	8.537560	10.671950	12.806340
Gunfleet Sands Offshore Wind Farm	2.135193	0.156145	8.540772	10.675965	12.811158
Gwynt Y Mor Offshore Wind Farm	2.164084	0.158258	8.656336	10.820420	12.984504
Hadyard Hill	1.019055	0.074523	4.076220	5.095275	6.114330
Halsary Wind Farm	1.350278	0.098745	5.401112	6.751390	8.101668
Harestanes	0.610669	0.044658	2.442676	3.053345	3.664014
Hartlepool	0.641299	0.046898	2.565196	3.206495	3.847794
Heysham Power Station	0.431758	0.031574	1.727032	2.158790	2.590548
Hinkley Point B	0.000000	0.000000	0.000000	0.000000	0.000000
Hirwaun Power Station	0.160294	0.011722	0.641176	0.801470	0.961764
Holyhead	0.254966	0.018645	1.019864	1.274830	1.529796
Hornsea Power Station 1A	0.052085	0.003809	0.208340	0.260425	0.312510
Hornsea Power Station 1B	0.056442	0.004128	0.225768	0.282210	0.338652
Hornsea Power Station 1C	0.056090	0.004102	0.224360	0.280450	0.336540
Hornsea Power Station 2A	0.057842	0.004230	0.231368	0.289210	0.347052
Hornsea Power Station 2B	0.057842	0.004230	0.231368	0.289210	0.347052
Hornsea Power Station 2C	0.057842	0.004230	0.231368	0.289210	0.347052
Humber Gateway Offshore Wind Farm	2.175917	0.159123	8.703668	10.879585	13.055502
Hunterston	1.196056	0.087467	4.784224	5.980280	7.176336
Immingham	0.283395	0.020724	1.133580	1.416975	1.700370
Indian Queens	0.000000	0.000000	0.000000	0.000000	0.000000
Invergarry (part of the Garry Cascade)	1.720923	0.125850	6.883692	8.604615	10.325538
Iron Acton	0.080444	0.005883	0.321776	0.402220	0.482664
J G Pears	0.171424	0.012536	0.685696	0.857120	1.028544
Keadby	0.165745	0.012121	0.662980	0.828725	0.994470
Keadby II	0.166777	0.012196	0.667108	0.833885	1.000662
Keith Hill Wind Farm	0.574981	0.042048	2.299924	2.874905	3.449886

Power Station	LDTEC Tariff (£/kW/Week)		STTEC Tariff (£/kW)		
	Higher Rate	Lower Rate	28 Days	35 Days	42 Days
Kemsley PP	0.000000	0.000000	0.000000	0.000000	0.000000
Kennoxhead Wind Farm Extension	0.663503	0.048521	2.654012	3.317515	3.981018
Kilbraur Wind Farm	1.477523	0.108050	5.910092	7.387615	8.865138
Kilgallioch	0.955274	0.069858	3.821096	4.776370	5.731644
Killingholme	0.189748	0.013876	0.758992	0.948740	1.138488
Kilmorack (part of the Beaulieu Cascade)	1.548946	0.113273	6.195784	7.744730	9.293676
Kings Lynn A	0.065789	0.004811	0.263156	0.328945	0.394734
Kype Muir	0.616840	0.045109	2.467360	3.084200	3.701040
Langage	0.000000	0.000000	0.000000	0.000000	0.000000
Lincs Offshore Wind Farm	4.406020	0.322209	17.624080	22.030100	26.436120
Lister Drive Battery	0.194289	0.014208	0.777156	0.971445	1.165734
Little Barford	0.121059	0.008853	0.484236	0.605295	0.726354
Lochay (Part of Killin Cascade Hydro Scheme)	1.384567	0.101252	5.538268	6.922835	8.307402
Lochluichart	1.412788	0.103316	5.651152	7.063940	8.476728
London Array Offshore Wind Farm	2.743301	0.200616	10.973204	13.716505	16.459806
Luichart (part of the Conon Cascade)	1.773504	0.129695	7.094016	8.867520	10.641024
Lynemouth Power Station	0.472523	0.034555	1.890092	2.362615	2.835138
Marchwood	0.000000	0.000000	0.000000	0.000000	0.000000
Mark Hill Wind Farm	0.899258	0.065762	3.597032	4.496290	5.395548
Medway Power Station	0.000000	0.000000	0.000000	0.000000	0.000000
Middle Muir Wind Farm	0.677994	0.049581	2.711976	3.389970	4.067964
Millennium South	1.248238	0.091283	4.992952	6.241190	7.489428
Millennium Wind	1.530300	0.111910	6.121200	7.651500	9.181800
Minygap	0.516509	0.037772	2.066036	2.582545	3.099054
Moray East Offshore Wind Farm	1.248887	0.091330	4.995548	6.244435	7.493322
Mossford (part of the Conon Cascade)	1.894210	0.138522	7.576840	9.471050	11.365260
Nant	1.600486	0.117042	6.401944	8.002430	9.602916
Neart Na Gaoithe Offshore Wind Farm	0.619705	0.045319	2.478820	3.098525	3.718230
Nursling Tertiary	0.000000	0.000000	0.000000	0.000000	0.000000
Ormonde Offshore Wind Farm	4.285243	0.313377	17.140972	21.426215	25.711458
Orrin (part of the Conon Cascade)	1.743483	0.127500	6.973932	8.717415	10.460898
Osballdwick	0.196291	0.014355	0.785164	0.981455	1.177746
Pembroke Power Station	0.153533	0.011228	0.614132	0.767665	0.921198
Pen Y Cymoedd Wind Farm	0.000000	0.000000	0.000000	0.000000	0.000000
Peterborough	0.046883	0.003429	0.187532	0.234415	0.281298
Peterhead	0.944028	0.069036	3.776112	4.720140	5.664168
Pogbie Wind Farm	0.597832	0.043719	2.391328	2.989160	3.586992
Powersite @ Drakelow	0.110545	0.008084	0.442180	0.552725	0.663270
Race Bank Wind Farm	1.954596	0.142938	7.818384	9.772980	11.727576

Power Station	LDTEC Tariff (£/kW/Week)		STTEC Tariff (£/kW)		
	Higher Rate	Lower Rate	28 Days	35 Days	42 Days
Rampion Offshore Wind Farm	0.000000	0.000000	0.000000	0.000000	0.000000
Ratcliffe on Soar	0.091030	0.006657	0.364120	0.455150	0.546180
Robin Rigg East Offshore Wind Farm	2.852405	0.208594	11.409620	14.262025	17.114430
Robin Rigg West Offshore Wind Farm	2.862795	0.209354	11.451180	14.313975	17.176770
Rocksavage	0.162365	0.011874	0.649460	0.811825	0.974190
Rye House	0.000000	0.000000	0.000000	0.000000	0.000000
Saltend	0.289023	0.021136	1.156092	1.445115	1.734138
Sandy Knowe Wind Farm	1.013944	0.074149	4.055776	5.069720	6.083664
Sanquhar Wind Farm	1.211940	0.088628	4.847760	6.059700	7.271640
Seabank	0.014768	0.001080	0.059072	0.073840	0.088608
Sellafield	0.160562	0.011742	0.642248	0.802810	0.963372
Severn Power	0.023501	0.001719	0.094004	0.117505	0.141006
Sheringham Shoal Offshore Wind Farm	2.965469	0.216863	11.861876	14.827345	17.792814
Shoreham	0.000000	0.000000	0.000000	0.000000	0.000000
Sizewell B	0.149705	0.010948	0.598820	0.748525	0.898230
Sloy G2 and G3	1.000289	0.073150	4.001156	5.001445	6.001734
South Humber Bank	0.245460	0.017950	0.981840	1.227300	1.472760
Spalding	0.109371	0.007998	0.437484	0.546855	0.656226
Spalding Energy Expansion	0.098200	0.007181	0.392800	0.491000	0.589200
Staythorpe C	0.183424	0.013414	0.733696	0.917120	1.100544
Strathy North and South Wind	1.466299	0.107229	5.865196	7.331495	8.797794
Stronelairg	1.157998	0.084684	4.631992	5.789990	6.947988
Sutton Bridge	0.079554	0.005818	0.318216	0.397770	0.477324
Taylors Lane	0.000000	0.000000	0.000000	0.000000	0.000000
Tees Renewable Energy Plant	0.428846	0.031361	1.715384	2.144230	2.573076
Thanet Offshore Wind Farm	3.022445	0.221029	12.089780	15.112225	18.134670
Thurrock	0.000000	0.000000	0.000000	0.000000	0.000000
Toddleburn Wind Farm	0.617283	0.045141	2.469132	3.086415	3.703698
Torness	1.008964	0.073785	4.035856	5.044820	6.053784
Trafford Power	0.166777	0.012196	0.667108	0.833885	1.000662
Tralorg Wind Farm	0.932077	0.068162	3.728308	4.660385	5.592462
Triton Knoll Offshore Wind Farm	0.017585	0.001286	0.070340	0.087925	0.105510
Twentysilling Wind Farm	1.133226	0.082872	4.532904	5.666130	6.799356
Upware Solar Farm	0.072740	0.005319	0.290960	0.363700	0.436440
Uskmouth	0.136234	0.009963	0.544936	0.681170	0.817404
Walney 3 Offshore Wind Farm	1.809239	0.132308	7.236956	9.046195	10.855434
Walney 4 Offshore Wind Farm	1.803558	0.131893	7.214232	9.017790	10.821348
Walney II Offshore Wind Farm	3.684616	0.269453	14.738464	18.423080	22.107696
Walney I Offshore Wind Farm	3.886770	0.284237	15.547080	19.433850	23.320620
West Burton A	0.160725	0.011754	0.642900	0.803625	0.964350

Power Station	LDTEC Tariff (£/kW/Week)		STTEC Tariff (£/kW)		
	Higher Rate	Lower Rate	28 Days	35 Days	42 Days
West Burton B	0.182546	0.013349	0.730184	0.912730	1.095276
Westermost Rough Offshore Wind Farm	2.658656	0.194426	10.634624	13.293280	15.951936
West of Duddon Sands Offshore Wind Farm	3.019725	0.220830	12.078900	15.098625	18.118350
Whitelee	0.858295	0.062766	3.433180	4.291475	5.149770
Whitelee Extension	0.842513	0.061612	3.370052	4.212565	5.055078
Whiteside Hill Wind Farm	1.230928	0.090017	4.923712	6.154640	7.385568
Willington	0.063031	0.004609	0.252124	0.315155	0.378186
Wilton	0.249172	0.018222	0.996688	1.245860	1.495032
Windy Rig Wind Farm	0.962646	0.070398	3.850584	4.813230	5.775876
Windy Standard II (Brockloch Rig) Wind Farm	1.047558	0.076607	4.190232	5.237790	6.285348
Worset Solar Park	0.417581	0.030537	1.670324	2.087905	2.505486

The above tariffs apply to levels of STTEC or LDTEC access that is agreed during the charging year.

STTEC can be arranged in 4, 5, or 6 week blocks, with the tariff for applicable duration applying.

The LDTEC tariff is applied at two rates during the year. The higher LDTEC rate applies to the first 17 weeks of access within a charging year (whether consecutive or not), and the lower LDTEC rate applies to any subsequent access within the year.

Further LDTEC and STTEC tariffs applicable to generation connecting to offshore transmission infrastructure during 2021/22 will be published in future revisions of this statement following the completion of asset transfer.

7. Schedule of Pre-Asset Transfer Related Embedded Transmission Use of System Charges in 2021/22

The following table provides the Pre-Asset Transfer Related Embedded Transmission Use of System (ETUoS) tariffs applicable to embedded transmission connected offshore generation from 1 April 2021. The relating charge is used to recover the element of the Offshore Transmission Operator's Revenue that relates to distribution charges paid during in the development of the offshore transmission network.

Table 1.13 Pre-Asset Transfer ETUoS Tariff (£/kW)

Offshore Generator	ETUoS
Barrow	1.159154
Gunfleet	3.314390
Ormonde	0.404688
Robin Rigg	10.844253
Robin Rigg West	10.844253
Sheringham Shoal	0.650705
Thanet	0.875391

Please note that in addition to the charges listed above, any enduring distribution charges made to the NGESO will be passed through to the relating generator in the form of an ETUoS charge.

Further Pre-Asset Transfer Related ETUoS tariffs applicable to generation connecting to offshore transmission infrastructure during 2021/22 will be published in future revisions of this statement following the completion of asset transfer.

8. Schedule of Transmission Network Use of System Half hourly (HH) Demand Tariffs (£/kW) and Non half Hourly (NHH) Demand Tariffs (p/kWh) for 2021/22

The following table provides the Zonal Demand tariffs for Half Hour metered demand and Energy Consumption TNUoS tariffs for non-Half-Hour demand applicable from 1 April 2021.

Table 1.14 Zonal Demand and Energy Consumption TNUoS Tariffs

Zone	Zone Name	HH Demand Tariff (£/kW)	NHH Demand Tariff (p/kWh)	Embedded Export Tariff (£/kW)
1	Northern Scotland	20.376396	2.723726	-
2	Southern Scotland	29.300172	3.712996	-
3	Northern	41.444048	5.139134	-
4	North West	48.036551	6.039881	-
5	Yorkshire	48.696198	5.963751	-
6	N Wales & Mersey	49.452722	6.060647	-
7	East Midlands	52.428151	6.641922	1.478519
8	Midlands	53.959972	6.937534	3.010340
9	Eastern	54.283935	7.355652	3.334302
10	South Wales	56.236808	6.514291	5.287175
11	South East	56.772103	7.738980	5.822471
12	London	59.186350	6.378699	8.236717
13	Southern	58.865203	7.574864	7.915570
14	South Western	61.676796	8.488355	10.727163

Residual charge for demand:	53.231669
-----------------------------	-----------

A demand User's zone will be determined by the GSP Group to which the User is deemed to be connected.

The Demand Tariff is applied to Demand User's average half-hourly metered demand over the three Triad periods, as described in the Statement of Use of Charging Methodology.

Demand Tariffs are a combination of a locational element that reflects the cost of providing incremental capacity to demand on an area of the main integrated onshore transmission system, and a non-locational residual element which ensures that the appropriate amount of transmission revenue is recovered from demand Users. For 2021/22 the HH demand residual element to two decimal places is £53.23/kW.

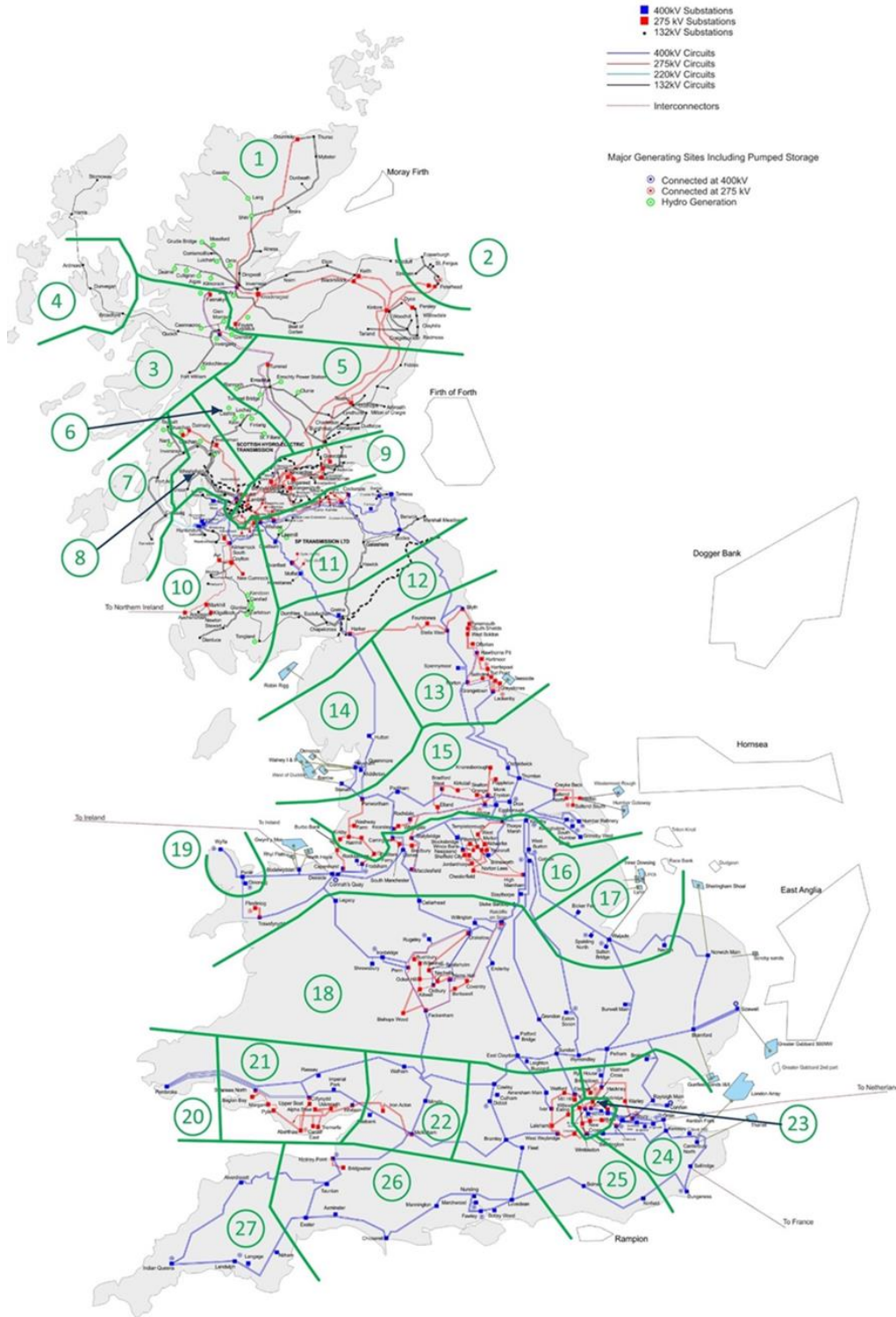
In the case of parties liable for both generation and demand charges, the demand tariff zone applicable in respect of that party's demand will be that in which the Transmission Licensee's substation to which the party is connected is geographically located. For example, if a power station were connected at a Transmission Licensee's substation that is geographically located within demand zone 1, it would pay the zone 1 demand tariff.

The NHH demand tariff is based on the annual energy consumption during the period 16:00 hrs to 19:00 hrs (i.e. settlement periods 33 to 38 inclusive) over the relevant financial year.

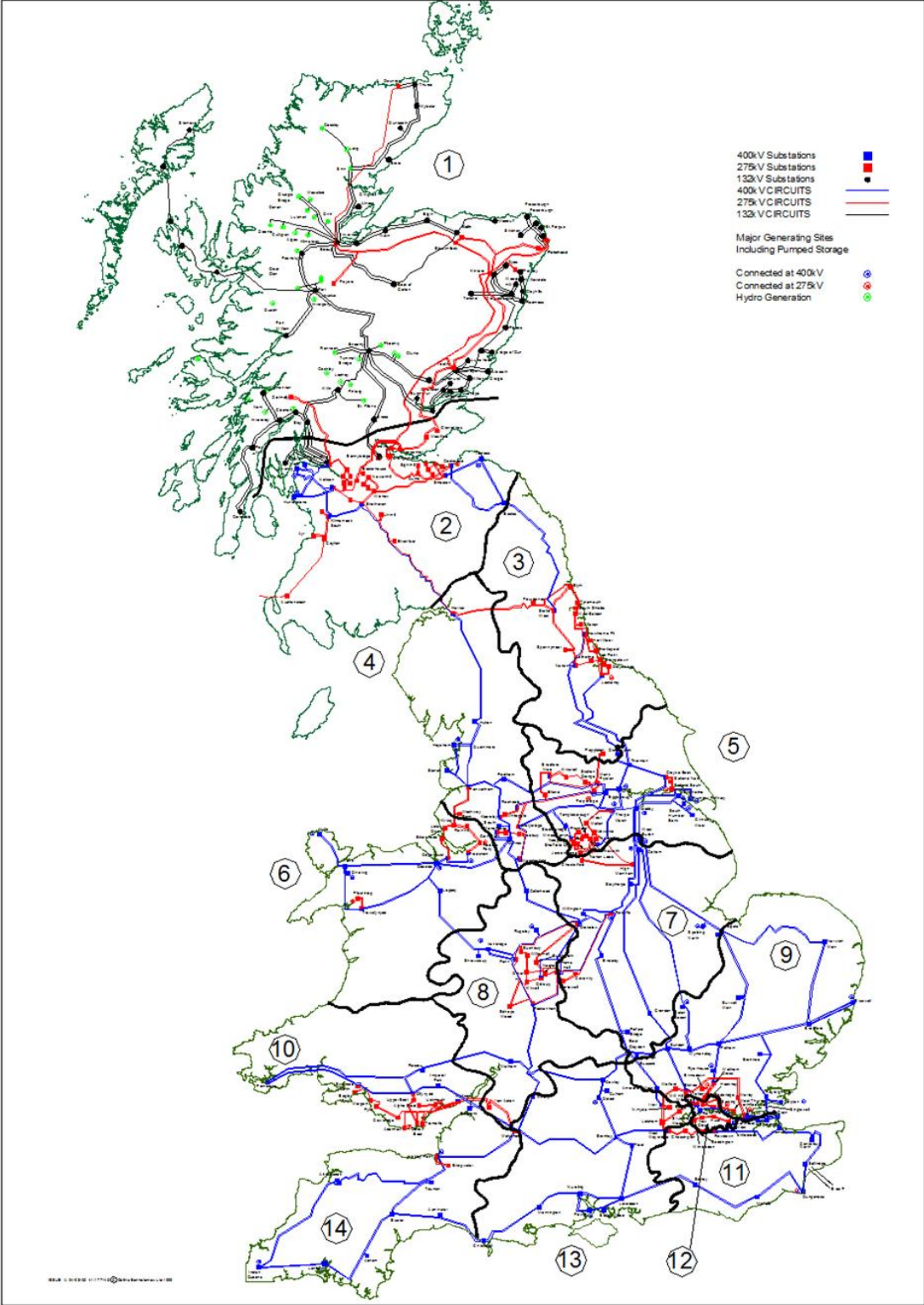
9. Zonal Maps Applicable for 2021/22

Generation Use of System Tariff Zones (Geographical map as at 1 April 2021)

Figure A2: GB Existing Transmission System



Demand Use of System Tariff Zones (Geographical map as at 1 April 2021)





Schedule 2

Application Fees

10. Application Fees for Connection and Use of System Agreements

Application fees are payable in respect of applications for new connection agreements, certain use of system agreements and for modifications to existing agreements. The fees are based on reasonable costs incurred by National Grid Electricity System Operator including where appropriate, charges from the Transmission Owners (TO's) in accordance with their charging statements. The application process and options available are detailed in the Statement of the Use of System Charging Methodology which is included in Section 14 of the Connection and Use of System Code (CUSC).

The application fee is dependent upon size, type and location of the applicant's scheme.

Users can opt for a variable price application and pay an advance of the Engineering Charges based on the fixed prices shown, which will be reconciled once the actual costs have been calculated using the charge out rates contained in Schedule 4.

Alternatively, onshore Users can opt to pay a fixed price application fee in respect of New and Modified Bilateral Agreements. In some circumstances, where a given application is expected to involve significant costs over and above those normally expected (e.g. substantial system studies, special surveys, investigations, or where a Transmission Owner varies the application fee charged to NGENSO from the standard fee published in their charging statements) to process an offer of terms, NGENSO reserves the right to remove the option for a fixed price application fee.

There are six zones based on the Boundary of Influence map defined in Schedule 4 of the STC (SO-TO Code). Zone NGET1 maps to where NGET is host and there are no affected TOs, NGET2 maps to where NGET is the host TO and SPT is an affected TO, SPT1 is where SPT is the host TO and NGET is an affected TO, SPT2 maps to where SPT is the host TO and there are no affected TOs, SPT3 maps to where SPT is host TO and SHET is an affected TO and SHET1 is where SHET is the host TO and there are no affected TOs.

The application fees indicated will be reviewed on an annual basis and reflect any changes to the Boundaries of Influence. It should be noted that the zone to which a particular user is applying is determined by the location of the connection to the National Electricity Transmission System and not by the geographical location of the User's plant and equipment.

All application fees are subject to VAT.

11. Reconciliation and Refunding of Application Fees for Connection and Use of System Agreements

Application Fees will be reconciled and / or refunded in accordance with Section 14 of the Connection and Use of System Code (CUSC).

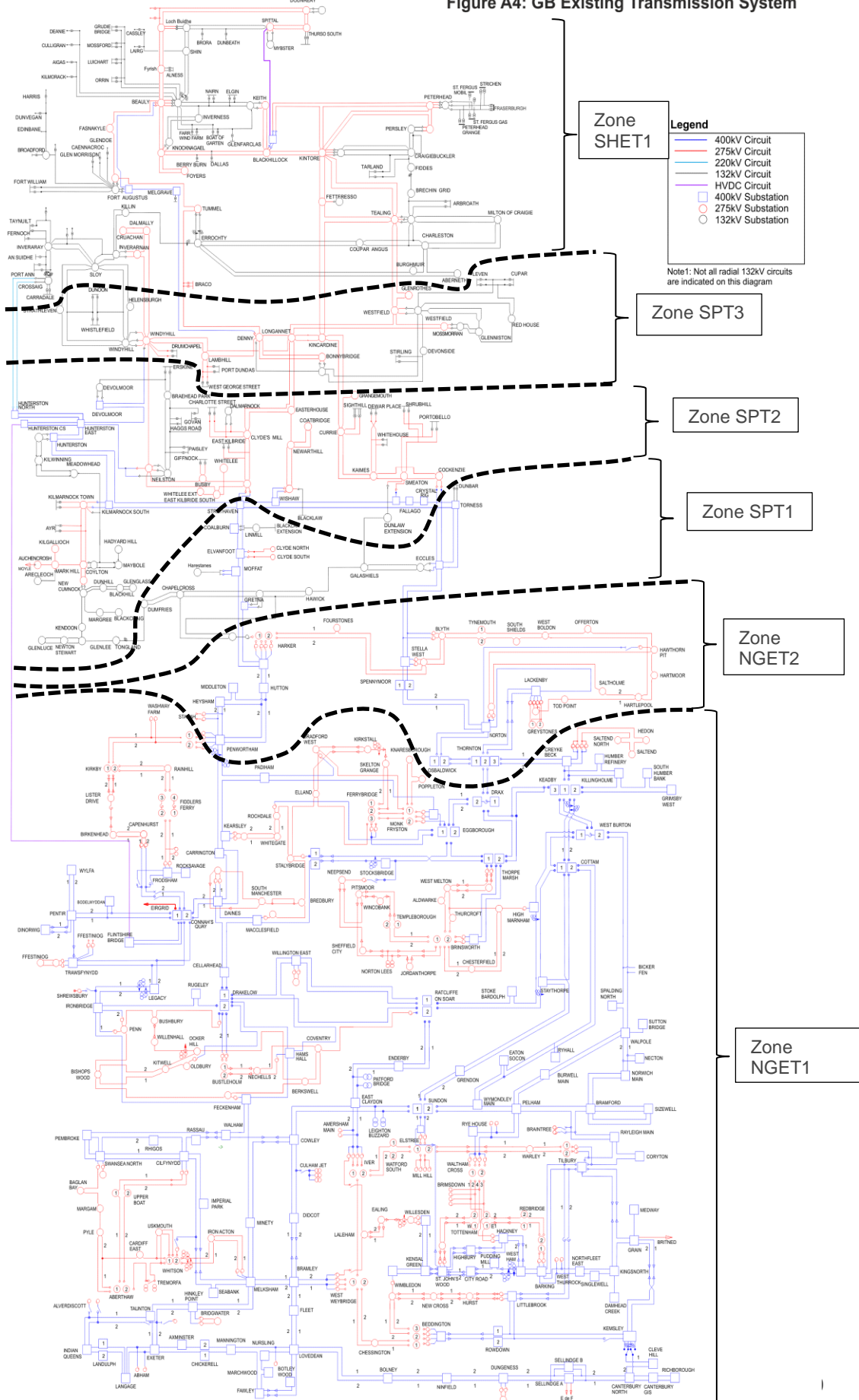
Table 2.6 Zonal Map

SHE TRANSMISSION

SP TRANSMISSION

NATIONAL GRID

Figure A4: GB Existing Transmission System



Zone SHE1

Zone SPT3

Zone SPT2

Zone SPT1

Zone NGET2

Zone NGET1

- Legend**
- 400kV Circuit
 - 275kV Circuit
 - 220kV Circuit
 - 132kV Circuit
 - HVDC Circuit
 - 400kV Substation
 - 275kV Substation
 - 132kV Substation

Note1: Not all radial 132kV circuits are indicated on this diagram

12. Application Fees for New Bilateral Agreements and Modifications to existing Bilateral Agreements

We have worked closely with the onshore TOs to review the application fees. We have simplified the application fees by removing the rate per MW and reducing the number of fee types. We have also included a fee for storage and aligned the MW bandings with the SQSS. All modification applications are 75% of the new application fee.

Table 2.7 Application Fees

		NGET 1 NGET Host TO	NGET2 NGET Host, SPT affected	SPT1 SPT Host, NGET affected	SPT2 SPT Host TO	SPT3 SPT Host, SHET affected	SHET1 SHET Host TO
New Onshore Application (Entry) / TEC change	<100MW	£26,450	£34,450	£50,700	£39,950	£44,950	£27,950
	100MW-249MW	£37,000	£45,000	£55,950	£39,950	£44,950	£27,950
	250MW-1800MW	£70,350	£85,350	£72,650	£39,950	£44,950	£34,950
	>1800MW	£108,950	£128,950	£141,950	£89,950	£99,950	£54,950
New Onshore Supply Point (Exit) or New Onshore Modification Application to Existing Supply Point (Exit)	<=100MW	£31,650	£43,650	£48,700	£35,750	£50,750	£42,750
	>100MW	£39,500	£64,500	£67,650	£50,750	£65,750	£55,750
New Offshore Application (Indicative Fee Only)	-	£63,300	£98,300	£78,900	£54,550	£104,550	£99,550
Statement of Works (Exit)	-	£3,200	£3,700	£3,700	£1,100	£1,600	£1,600
Project Progression (Exit)	-	£18,250	£20,250	£20,450	£8,700	£10,950	£9,700
New Onshore Application BEGA/BELLA	-	£12,650	£16,150	£24,450	£18,450	£23,450	£18,450
Storage	-	-	-	-	£39,950	£49,950	£44,950
Assign, transfer or novate a bilateral agreement or minor admin changes	-	£3,100	£4,600	£4,600	£2,100	£7,100	£7,100

Application Type	Fraction of New Application Fee
Modification Application (Entry, Offshore and Exit)	0.75

Table 2.12 Other Application Fees

Application Type	NGET1	NGET2	SPT1	SPT2	SPT3	SHET1
TEC Exchange Request (no system works)	£10,000	£10,000	£10,000	£10,000	£17,000	£17,000
Request for STTEC or LDDTEC	£10,000					
Reactive Only Service Provider	£10,000	£10,000	£35,000	£35,000	£35,000	-
Suppliers and Interconnector Users	£5,000					

If applying for a combination of changes after making an initial application and this is prior to the completion of works associated to the initial application, such as a change to works or completion date that also includes a TEC Change, the Application Fee will be the higher of the TEC Change Fee or Modification Application Fee.

Where the developer requests the TOs to identify the transmission reinforcement works and the works at the GSP (mod notice process), the application fee will be indicative only.

Table 2.13 Limited Duration TEC Request Fees

Limited Duration TEC (LDTEC)		Duration of LDTEC (t)	Zone	£ (£'000)	Agreement Type (as Table 2.15)
14	Basic request fee for duration t (applicable to all requests for LDTEC Offers)	t <= 3 months	All	10 + VAT	Bilateral Connection Agreement / BEGA
		3 months < t <= 6 months		15 + VAT	
		6 months < t <= 9 months		20 + VAT	
		t > 9 months		30 + VAT	
	Additional fee for rolling assessment (applicable to a request for an LDTEC Indicative Block Offer)	t <= 3 months		1 + VAT	
		3 months < t <= 6 months		1.5 + VAT	
		6 months < t <= 9 months		2 + VAT	
		t > 9 months		3 + VAT	
	Additional fee for combined applications (applicable to a combined request for an LDTEC Block Offer and an LDTEC Indicative Block Offer)	t <= 3 months		5 + VAT	
		3 months < t <= 6 months		7.5 + VAT	
		6 months < t <= 9 months		10 + VAT	
		t > 9 months		15 + VAT	

Table 2.14 Temporary TEC Exchange Rate Request Fees

Temporary TEC Exchange Rate Request Fees		Duration of Temporary Exchange period (t)	£
15	Application fee for Temporary TEC Exchange Rate Requests	t <= 3 months	15,000
		3 months < t <= 6 months	25,000
		6 months < t <= 9 months	30,000
		t > 9 months +	45,000

13. Examples

1. Entry Application Fee for a New Bilateral Agreement onshore, 300MW Generator wishing to connect to the transmission system in Zone NGET1.
Application Fee = £70,350
2. Entry Application Fee for a New Bilateral Agreement offshore, 2000MW Generator wishing to connect to the transmission system in Zone SPT1 Two Connection Sites.
Application Fee = $2 * £78,900 = £157,800$
3. Entry Application Fee for a Modification to an existing Bilateral Agreement Offshore, 2000MW Generator in Zone SPT1 seeking to alter a commissioning date where there are 2 affected transmission interface sites. This would be a Modification.
Application Fee = $0.75 * £78,900 = £59,175$
4. Entry Application Fee for a Modification to an existing Bilateral Agreement, 300MW Generator in Zone NGET2 seeking to alter commissioning date. This would be a Modification.
Application Fee = $0.75 * £64,500 = £48,375$
5. Entry Application Fee for an embedded generator (BEGA/ BELLA), 300MW embedded generator requesting a BEGA in Zone NGET2.
Application Fee = £16,150
6. Entry Application Fee for a TEC Increase
400MW generator in Zone SPT3 wishes to increase TEC by 20MW to 420MW.
Application Fee = £44,950
7. Entry Application Fee for a change to completion date,
500MW generator in Zone NGET2 wishes to change their completion date by moving it back by 12 months.
Application Fee = $0.75 * £85,350 = £64,012.50$
8. Entry Application Fee to decrease TEC
600MW generator in Zone SHET1 wishes to decrease TEC by 100MW to 500MW.
Application Fee = £19,950

Table 2.15 Bilateral Agreement Types

Bilateral Agreement Type	Description
Bilateral Connection Agreement	In respect of Connection Sites of Users.
Bilateral Embedded Licence Exemptible Large Power Station Agreement (BELLA)	For generators that own or are responsible for embedded exemptible large power stations (another party may be responsible for the output under the CUSC and BSC).
Bilateral Embedded Generation Agreement (BEGA)	For generators and BSC parties with embedded power stations, excluding those which are exempt (unless they otherwise choose to be), who are responsible for the output onto a Distribution System.
Construction Agreement	In respect of parties that are applying for new or modified agreements up until the time of commissioning.

The definitions provided below have been extracted from the Grid Code and are provided for ease of reference within this document.

Table 2.16 Generator Types

Type of Plant	Definition
Embedded	Having a direct connection to a User System or the System of any other User to which Customers and/or Power Stations are connected, such connection being either a direct connection or a connection via a busbar of another User or of a Transmission Licensee (but with no other connection to the National Electricity Transmission System).
Small Power Station	A Power Station in NGET's Transmission Area with a Registered Capacity of less than 50MW, a Power Station in SPT's Transmission Area with a Registered Capacity of less than 30MW or a Power Station in SHE T's Transmission Area with a Registered Capacity of less than 10 MW.
Medium Power Station	A Power Station in NGET's Transmission Area with a Registered Capacity of 50MW or more, but less than 100MW.
Large Power Station	A Power Station in NGET's Transmission Area with a Registered Capacity of 100MW or more or a Power Station in SPT's Transmission Area with a Registered Capacity of 30 MW or more; or a Power Station in SHE T's Transmission Area with a Registered Capacity of 10 MW or more.

Glossary

Affected TO	A TO who owns or operates a transmission system which is electrically impacted by a User's connection to a Host TO's transmission system
Authority	The Gas and Electricity Markets Authority (GEMA) established under Section 1 of the Utilities Act 2000
Bilateral Connection Agreement	An agreement between the SO and the User covering the connection to the TO's transmission system.
CUSC	Connection and Use of System Code
Entry	A point of connection at which electricity may be exported from a User's installation onto the Transmission System, i.e. Generation
Exit	A point of connection at which electricity may flow from the Transmission System to the User's installation, i.e. Demand
Host TO	The TO which will electrically connect the User to a transmission system which is owned or operated by that TO
NGET	National Grid Electricity Transmission plc
Post-Vesting	Means after 31 March 1990
Price Control	As set out in the TO's Licence
Retail Price Index	Table 36: RPI: All items index 1947-2013 "CHAW" published by the Office for National Statistics and as amended monthly
NGESO	National Grid Electricity System Operator
STC	The System Operator-Transmission Owner Code
TO	An onshore or offshore Transmission Owner. This being [TO name plc]
Transmission Interface Site	The site at which the Transmission interface point is located
Transmission Licence	Transmission licence granted or treated as granted under section 6(1)(b) of the Act
User	A generation or demand customer connected to the TO's transmission system and party to SO's bilateral agreement(s).



Schedule 3

Charge-Out Rates

14. Charge-Out Rates for Engineering Charges for Variable Price Applications

Appropriately qualified staff will be appointed to process applications and feasibility studies and carry out work in relation to the development of the National Electricity Transmission System. Travel, subsistence and computing costs will also be charged on an actual basis. It should be noted that these rates only apply to work carried out by the Transmission Licensee's in relation to licensed transmission activities. Different rates may apply when asked to quote for other work.

Table 3.1 Charge-Out Rates

	£/day			
	NGESO	NGET	SPT	SHE T
Senior Management; Legal	£1,008	£825	£974	£972
Departmental Management	£825	£792	£828	£693
Senior members of staff (Engineering; Commercial)	£690	£760	£709	£621
Standard (Engineering; Commercial)	£546	£637	£581	£507
Support staff; junior staff	£467	£600	£356	£381



Schedule 4

Connection Charges

15. Non-Capital Components applicable for Maintenance and Transmission Running Costs in Connection Charges for 2021/22

The following sections set out the components of connection charges and the parameters used to set the charges.

The parameters have been updated for the RII0-2 price control period as set out in section 14 of the CUSC.

Connection charges are made up of capital and non-capital components. The non-capital component of the connection charge is divided into two parts, as set out below.

Part A: Site Specific Maintenance Charges

Site-specific maintenance charges are calculated each year based on the forecast total site specific maintenance for GB divided by the total Gross Asset Value (GAV) of the transmission licensees GB connection assets, to arrive at a percentage of total GAV. For 2021/22 this will be 0.37%.

Part B: Transmission Running Costs

The Transmission Running Cost (TRC) factor is calculated at the beginning of each price control to reflect the proportion of the Transmission Running Costs (e.g. rates, operation, indirect overheads) incurred by the transmission licensees that should be attributed to connection assets.

The TRC factor is calculated by taking a proportion of the forecast Transmission Running Costs for the transmission licensees (based on operational expenditure figures from the latest price control) that corresponds with the proportion of the transmission licensees' total connection assets as a function of their total business GAV. This cost factor is therefore expressed as a percentage of an asset's GAV and will be fixed for the entirety of the price control period. For 2021/12 to 2025/26 this will be 1.06%.

To illustrate the calculation, the following example uses the average operating expenditure from the published price control and the connection assets of each transmission licensee expressed as a percentage of their total system GAV to arrive at a GB TRC of 1.06%:

Example:

Connection assets as a percentage of total system GAV for each TO:

Scottish Power Transmission Ltd	12.9%
Scottish Hydro Transmission Ltd	8.49%
National Grid Electricity Transmission Plc	12.23%

Published current price control average annual operating expenditure (£m):

Scottish Power Transmission Ltd	79.56
Scottish Hydro Transmission Ltd	108.21
National Grid Electricity Transmission Plc	430.14

Total GB Connection GAV = £5.04bn

Gross GB TRC Factor =

$(12.23\% \times £430.14m + 8.49\% \times £79.27m + 12.9\% \times £107.83m) / £5.04bn = 1.43\%$

Net GB TRC Factor = Gross GB TRC Factor – Site Specific Maintenance Factor*

= 1.43% - 0.37% = 1.06%

* Note – the Site Specific Maintenance Factor used to calculate the TRC Factor is that which applies for the first year of the price control period or in this example, is the 2021/22 Site Specific Maintenance Factor of 0.37%.

16. Transmission Owner Rate of Return

Rate of return (RoR) is aligned to the pre-tax cost of capital in the price control of the Relevant Transmission Licensee. The RoR was previously 6%, however due to the implementation of code modification CMP306, this has now been updated to the below.

Table 4.1 Rate of Return

Transmission Owner	Revaluation Type	Rate of Return
National Grid Electricity Transmission	RPI	3.36%
National Grid Electricity Transmission	MEA	4.86%
Scottish Power Transmission Ltd	RPI	3.36%
Scottish Hydro Transmission Ltd	RPI	2.82%

17. Illustrative Connection Asset Charges

An indication of First Year Connection Asset Charges for new connection assets using estimates of Gross Asset Values are outlined in Appendix 1. Additional examples of connection charge calculations are included in Appendix 2 of this Statement to provide some general illustrations of how connection charge calculations are applied.



A

Appendix A: Illustrative Connection Asset Charges

18. 2021/22 First Year Connection Charges based on the RPI Method (TO Specific Rate of Return)

The following table provides an indication of typical charges for new connection assets. Before using the table, it is important to read through the notes below as they explain the assumptions used in calculating the figures.

Calculation of Gross Asset Value (GAV)

The GAV figures in the following table were calculated using the following assumptions:

- Each asset is new
- The GAV includes estimated costs of construction, engineering and Liquidated Damages premiums.
- The GAV does not include Interest During Construction but does include a 5% risk factor to compensate for this.

For details of the Calculation of the Gross Asset Value, see Chapter 2 of The Statement of the Connection Charging Methodology (Section 14 Part I of the Connection and Use of System Code).

Calculation of first year connection charge

The first year connection charges in the following table were calculated using the following assumptions:

- The assets are new
- The assets are depreciated over 40 years
- The rate of return is aligned to the pre-tax cost of capital in the price control period
- The connection charges include maintenance costs at the 2021/22 rate of 0.37% of the GAV
- The connection charges include Transmission Running Costs at the 2021/22 rate of 1.06% of the GAV

For details of the Basic Annual Connection Charge Formula, see Chapter 2 of The Statement of the Connection Charging Methodology (Section 14 Part I of the Connection and Use of System Code).

Please note that the actual charges will depend on the specific assets at a site. Charges applicable to specific works will be detailed in the User's Bilateral Connection Agreement. Agreement specific GAVs and NAVs for each User will be made available on request.

Notes on Assets

Common Inclusions

The estimates include Design, Project management, Site setup, equipment transportation to site, installation, commissioning

Common exclusions

VAT, Inflation, costs associated with planning, site complexities such as ecology, environmental, archaeology, contamination, land purchase and management, site access including road crossings, rivers, etc.,

Notes and Assumptions

Transformers

- **Plant:** The above SGT cost estimates have been developed based on standard NG specifications and ordered in bulk quantities (part of bulk procurement framework). However, SGT equipment cost depends heavily on the site specific specification & requirements, number of units ordered, metal prices index, forex and various other conditions driven by the market.
- **Civil:** Based on nominal base sizes, good ground condition, no piling, no contamination, shallow/ deep bund, Firewall (generic brick wall) on one side with standard height of 8m.

Exclusions

- **Plant:** Bay protection, control and SCADA system, below ground earthing, auxiliary supplies such as AC/DC system (all considered under part of the Bay Cost estimate). Any power cabling on the HV and LV side.
- **Civil:** Trenching/Ducting and Piling, noise enclosure, access works, oil containment drainage.

Single/Double Busbar bay

Assumptions

- **Plant:** The bay cost estimate is based on NGET standard bay drawing 41/177344. Indicative prices provided for bay protection, control, cabling, auxiliary systems and earthing are based on various assumptions (i.e. location of equipment, type of equipment, trench layout, ratings, etc.), and can vary based on site specific conditions and requirements. Air insulated switchgear (AIS) technology is used in costing and it can vary if Gas insulated switchgear (GIS) technology is used.
- **Civil:** Nominal base sizes, dimensions of concrete footings, good ground condition.

Exclusions

- **Civil:** Trenching / Ducting and Piling. Any power cabling on HV and LV side.

Cable

Assumptions - All based on 1 circuit of 1 cable per phase, 100m straight, flat and unimpeded route within substation environment.

- Standard AIS CI3 terminations on steel AIS supports, c/w SVL's, anti-touch shrouds, corona rings, arc horns and solar protection as required.
- XLPE Lead/AlI sheathed cable, supply, installation, commission with High Voltage AC & sheath testing
- Earth Continuity Cable (ECC) & Link Boxes, supply, installation & connection included
- DTS c/w terminations into Fibre Optic Terminal boxes on AIS support - on 400 & 275kV only
- PD Monitoring/Testing on 400 & 275kV only

- Full Design Verification & Assurance to NG Standards and Specifications
- Cable installed in new precast concrete troughs, flat formation, secured in CBS, with cleats to prevent movement under fault conditions, 5T/11T loading standard concrete lids
- Connection & modifications to earth mat
- P&C Duct (1 x 90mm) included (Max 100m excluding cable(s))
- Excavation waste disposal, site establishment / prelims, security & access costs included
- Standalone project(s) with its own design/project team
- Water Management (if required)
- Costs do not allow for any small quantity/MOQ surcharge that may be levied by cable supplier

Exclusions

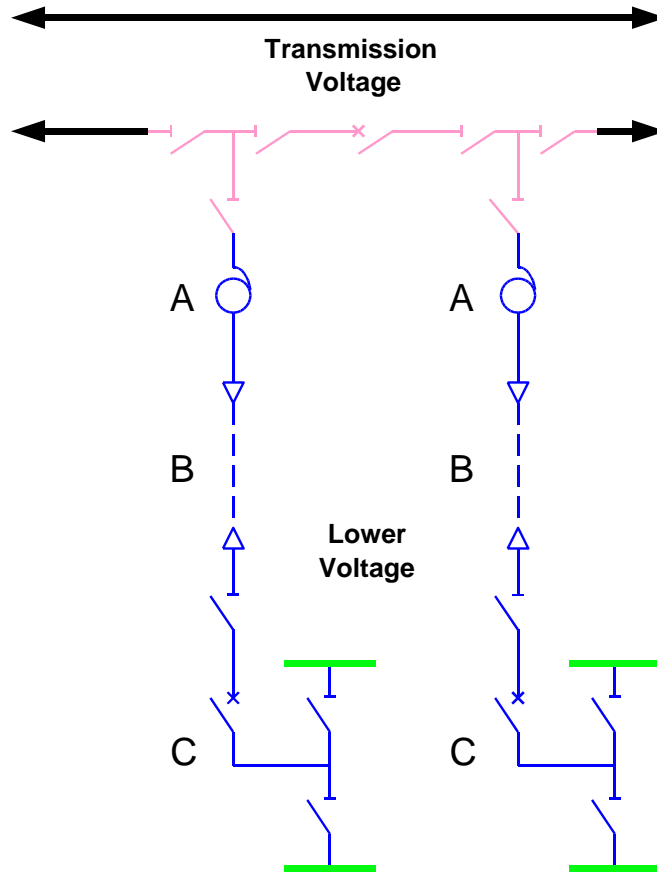
- **Civils:** Piling
- **Plant:** Oil works, pilot cabling (within substation scope)

Illustrative Connection Asset Charges						
	£000's					
	400kV		275kV		132kV	
	GAV	Charge	GAV	Charge	GAV	Charge
Double Busbar Bay	2608	272	2163	226	1341	140
Single Busbar Bay	2295	239	1868	195	1223	128
Transformer Cables 100m (incl. Cable sealing ends)						
120MVA			2259	236	1341	140
180MVA	2415	252	2259	236	1349	141
240MVA	2424	253	2271	237	1359	142
750MVA	2521	263	2338	244		
Transformers						
45MVA 132/66kV					2031	212
90MVA 132/33kV					2031	212
120MVA 275/33kV			3523	368		
180MVA 275/66kV			4192	437		
180MVA 275/132kV			4561	476		
240MVA 275/132kV			4488	468		
240MVA 400/132kV	4749	496				

Connection Examples

Example 1

NEW SUPERGRID CONNECTION SINGLE SWITCH MESH TYPE



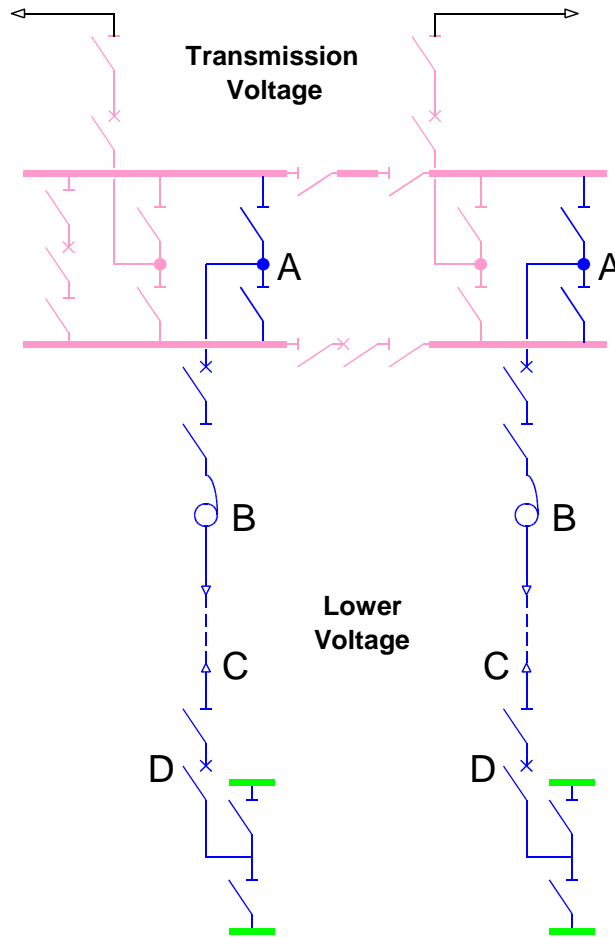
KEY:

- Existing Transmission Assets (infrastructure)
- New Transmission Assets (infrastructure)
- New connection assets wholly charged to customer
- Customer Assets

SCHEDULE FOR NEW CONNECTION				
Ref	275/132kV		400/132kV	
	Description	First Year Charges (£000s)	Description	First Year Charges (£000s)
A	2 x 180MVA Transformers	952	2 x 240MVA Transformers	992
B	2 x 100m 180MVA Cables	450	2 x 100m 240MVA Cables	506
C	2 x 132kV Double Busbar Transformer Bays	280	2 x 132kV Double Busbar Transformer Bays	280
Total		1682	Total	
			1778	

Example 2

NEW SUPERGRID CONNECTION DOUBLE BUSBAR TYPE



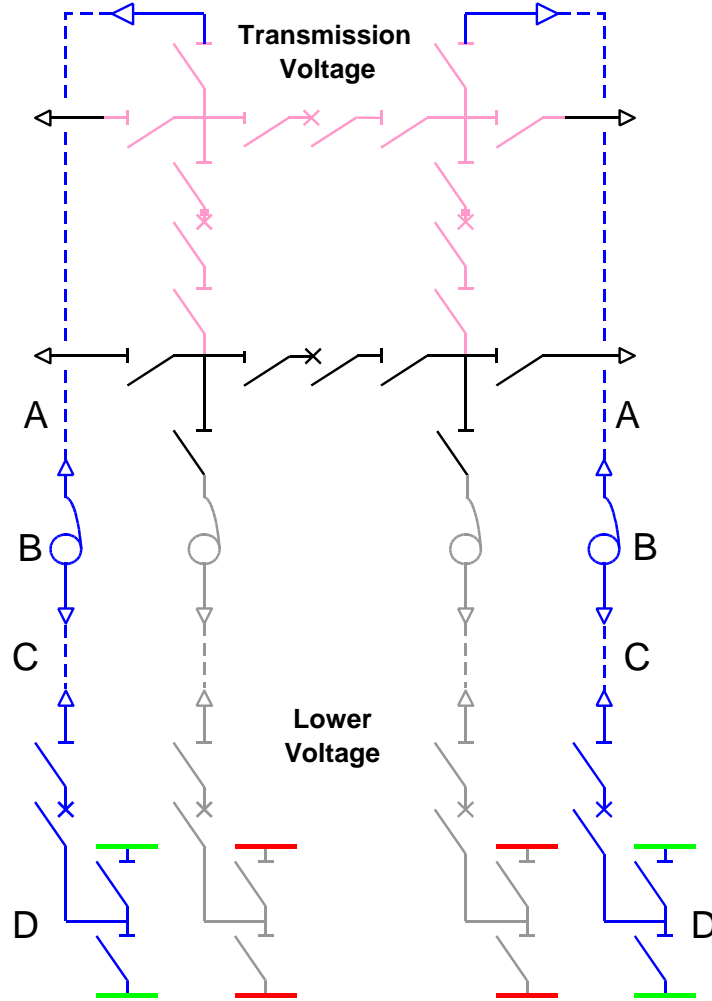
KEY:

- Existing Transmission Assets (infrastructure)
- New Transmission Assets (infrastructure)
- New connection assets wholly charged to customer
- Customer Assets

SCHEDULE FOR NEW CONNECTION				
Ref	275/132kV		400/132kV	
	Description	First Year Charges (£000s)	Description	First Year Charges (£000s)
A	2 x 275kV Double Busbar Transformer Bays	451	2 x 400kV Double Busbar Transformer Bays	544
B	2 x 180MVA Transformers	952	2 x 240MVA Transformers	992
C	2 x 100m 180MVA Cables	450	2 x 100m 240MVA Cables	506
D	2 x 132kV Double Busbar Transformer Bays	280	2 x 132kV Double Busbar Transformer Bays	280
Total		2133	Total	
			2322	

Example 3

EXTENSION OF SINGLE SWITCH MESH TO FOUR SWITCH MESH (extension to single user site)



KEY:

- Existing Transmission Assets (infrastructure)
- New Transmission Assets (infrastructure)
- New connection assets wholly charged to customer
- Existing connection assets wholly charged to another user
- Customer Assets
- Other Users Assets

SCHEDULE FOR NEW CONNECTION					
Ref	Description	275/132kV		400/132kV	
		First Year Charges (£000s)	Description	First Year Charges (£000s)	Description
A	2 x 100m 180MVA Cables	450	2 x 100m 240MVA Cables	506	
B	2 x 180MVA Transformers	952	2 x 240MVA Transformers	992	
C	2 x 100m 180MVA Cables	450	2 x 100m 240MVA Cables	506	
D	2 x 132kV Double Busbar Transformer Bays	280	2 x 132kV Double Busbar Transformer Bays	280	
Total		2132	Total	2284	



B

Appendix B: Examples of Connection Charge Calculations

The following examples of connection charge calculations are intended as general illustrations.

Example 1

This example illustrates the method of calculating the first year connection charge for a given asset value. This method of calculation is applicable to indicative price agreements for new connections, utilising the RPI method of charging, and assuming:

- i) the asset is commissioned on 1 April 2021
- ii) there is no inflation from year to year i.e. GAV remains constant
- iii) the site-specific maintenance charge component remains constant throughout the 40 years at 0.37% of GAV
- iv) the Transmission Running Cost component remains constant throughout the 40 years at 1.06% of GAV
- v) the asset is depreciated over 40 years
- vi) the rate of return is TO specific and aligned to the pre-tax cost of capital in the price control period for 2021-2025 for the 40-year asset life. We have assumed the asset is connecting to NGET, so the RoR is 3.36%.
- vii) the asset is terminated at the end of its 40-year life

For the purpose of this example, the asset on which charges are based has a Gross Asset Value of £3,000,000 on 1 April 2021.

Charge	Calculation	
Site Specific Maintenance Charge (0.37% of GAV)	3,000,000 x 0.37%	£11,100
Transmission Running Cost (1.06% of GAV)	3,000,000 x 1.06%	£31,800
Capital charge (40-year depreciation 2.5% of GAV)	3,000,000 x 2.5%	£75,000
Return on mid-year NAV (3.36%)	2,887,500 x 3.36%	£99,540
TOTAL		£217,440

The first-year charge of £217,440.00 would reduce in subsequent years as the NAV of the asset is reduced on a straight-line basis, assuming a zero rate of inflation.

This gives the following annual charges over time (assuming no inflation):

Year	Charge
1	£217,440
2	£214,920
10	£194,760
40	£119,160

Based on this example, charges of this form would be payable until 31 March 2060.

Example 2

The previous example assumes that the asset is commissioned on 1 April 2021. If it is assumed that the asset is commissioned on 1 July 2021, the first year charge would equal 9/12th of the first year annual connection charge i.e. £221,737.50

This gives the following annual charges over time:

Year	Charge
1	£163,080.00 connection charge for period July 2021 to March 2022)
2	£214,920
10	£194,760
40	£119,160

Example 3

In the case of a firm price agreement, there will be two elements in the connection charge, a finance component and a running cost component. These encompass the four elements set out in the examples above. Using exactly the same assumptions as those in example 1 above, the total annual connection charges will be the same as those presented. These charges will not change as a result of the adoption of a different charging methodology by National Grid Electricity System Operator, providing that the connection boundary does not change.

Example 4

If a User has chosen a 20-year depreciation period for their Post Vesting connection assets and subsequently remains connected at the site beyond the twentieth year their charges are calculated as follows.

For years 21-40 they will pay a connection charge based on the following formula:

$$\text{Annual Connection Charge}_n = \text{SSF}_n (\text{RPIGAV}_n) + \text{TC}_n (\text{GAV}_n)$$

The NAV will be zero and the asset will be fully depreciated so there will be no rate of return or depreciation element to the charge.

Index to the Statement of Use of System Charges Revisions

Issue	Description	Modifications
10.1	2014/15 Publication	-
11.0	2015/16 Publication	-
12.0	2016/17 Publication	CMP213 Transmit Application fee tables
13.0	2017/18 Publication	-
14.0	2018/19 Publication	Change introduced by CMP264/265 to demand TNUoS tariffs.
1.0	2019/20 Publication	Document transferred to NGESO Section on Balancing Services removed following changes to incentive mechanism.
2.0	2020/21 Publication	Updated format for application fees with new zones
3.0	2021/22 Publication	Change introduced by the start of RIIO-2 price control parameter reset and several code modifications: Impacting TNUoS tariffs: CMP317/327, CMP324/325, CMP353, CMP355/356, CMP357 Impacting connection charges: CMP306 Application fee review "Updated to reflect Affected TO Costs for SHET1".