Issue	Revision
14	0

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The Statement of Use of System Charges

Effective from 1 April 2018

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

nationalgrid

Contents

Introduction

This statement is published in accordance with the Transmission Licence of National Grid Electricity Transmission plc (National Grid).

This document sets out the annual tariffs for Transmission Network Use of System charges and the parameters used to calculate these; details of the Balancing Services Incentive Scheme which forms part of the Balancing Services Use of System Charges; and fees charged by National Grid in relation to applications for connection, use of system and engineering works.

Further information on the methods by which and principles upon which National Grid derives Use of System charges is set out 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) which is available on our website at:

http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/CUSC/The-CUSC/

If you require further detail on any of the information contained within this document or have comments on how this document might be improved please contact our **Charging Team**, preferably by email at:

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Schedule 1

Basis of 2018/19 Transmission Network Use of System Charges

The Transmission Network Use of System Charges for 2018/19 found within this document have been calculated using the methodology described in the Statement of Use of System Charging Methodology. Part of the tariff calculation utilises a DC Load Flow (DCLF) Investment Cost Related Pricing (ICRP) transport and tariff model. The following tables provide a summary of some of the parameters utilised to calculate tariffs within this model.

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	£14.08310010/MWkm
Annuity factor	5.8%
Overhead factor	1.8%
Locational onshore security factor	1.8
Offshore civil engineering discount	£0.440694 /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 Circuit Specific Expansion Factors

Circuit	Circuit Type	Project	Expansion Factor (to 2 dp.)
Blackhillock to Spitall	HVDC	Caithness Moray	22.59
Flintshire Bridge to Hunterston East	HVDC	Western Link	6.75
Hunterston North	Subsea Cable	Hunterston to Crossaig subsea cable	17.09
Crossaig	Subsea Cable		54.42
Crossaig to Hunterston North	Subsea Cable		25.52

Table 1.5 Offshore Local Expansion Factors

Offshore Power Station	Local Expansion Factor (to 2 d.p.)
Barrow	95.29
Greater Gabbard & Galloper	43.85, 41.84
Gunfleet	83.15
Gwynt Y Môr	38.88
Lincs	56.30
London Array	44.48
Ormonde	71.32
Robin Rigg East	144.21
Robin Rigg West	144.21
Sheringham Shoal	43.80
Thanet	72.45
Walney I	61.71
Walney 2	59.00
West of Duddon Sands	57.73
Westermost Rough	78.53
Humber Gateway	49.59

Further Local Expansion Factors used to calculate Local Circuit Tariffs applicable to generation connecting to offshore transmission infrastructure during 2018/19 will be published in future revisions of this statement following the completion of the tender process relating to the sale of the relating offshore transmission assets.

Schedule of Transmission Network Use of System Wider Zonal Generation Charges (£/kW) in 2018/19

Table 1.6

The following table provides the Wider Zonal Generation TNUoS tariffs applicable from 1 April 2018.

Zone No.	Zone Name	Peak Security (£/kW)	Year Round Shared (£/kW)	Year Round Not Shared (£/kW)	Residual (£/kW)
1	North Scotland	-1.224803	7.087100	23.713708	-2.524518
2	East Aberdeenshire	-1.564833	7.087100	16.322341	-2.524518
3	Western Highlands	-1.151336	6.742400	23.080718	-2.524518
4	Skye and Lochalsh	-7.080880	6.742400	22.985475	-2.524518
5	Eastern Grampian and Tayside	0.223873	5.961071	20.926257	-2.524518
6	Central Grampian	-0.540154	5.607589	19.625995	-2.524518
7	Argyll	-4.281853	4.946349	19.310849	-2.524518
8	The Trossachs	0.121027	4.946349	17.123688	-2.524518
9	Stirlingshire and Fife	-0.695178	3.823151	15.547750	-2.524518
10	South West Scotlands	2.759793	5.321630	17.252322	-2.524518
11	Lothian and Borders	2.921369	5.321630	11.337033	-2.524518
12	Solway and Cheviot	1.847792	3.299568	9.394343	-2.524518
13	North East England	3.435017	2.166433	4.738297	-2.524518
14	North Lancashire and The Lakes	1.753699	2.166433	3.628899	-2.524518
15	South Lancashire, Yorkshire and Humber	4.369952	0.915048	0.108511	-2.524518
16	North Midlands and North Wales	3.793481	-0.903367	0.000000	-2.524518
17	South Lincolnshire and North Norfolk	2.205750	-0.386413	0.000000	-2.524518
18	Mid Wales and The Midlands	1.283844	-0.092373	0.000000	-2.524518
19	Anglesey and Snowdon	4.578802	-0.988018	0.000000	-2.524518
20	Pembrokeshire	9.102191	-4.448024	0.000000	-2.524518
21	South Wales & Gloucester	6.189622	-4.419923	0.000000	-2.524518
22	Cotswold	3.140018	2.190690	-6.586203	-2.524518
23	Central London	-5.396903	2.190690	-6.369195	-2.524518
24	Essex and Kent	-3.773103	2.190690	0.000000	-2.524518
25	Oxfordshire, Surrey and Sussex	-1.273475	-2.863212	0.000000	-2.524518
26	Somerset and Wessex	-1.323025	-4.266571	0.000000	-2.524518
27	West Devon and Cornwall	0.166003	-5.663470	0.000000	-2.524518

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 residual element ensures that the appropriate amount of transmission revenue is recovered from generators.

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 Residual Tariff. For conventional carbon generation technology, the wider zonal generation tariff is the sum of the Peak Tariff and the Residual Tariff, and the Shared Year Round Tariff and Shared Not Year Round Tariff both being scaled by the generator's Annual Load Factor. 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 Residual Tariff.

Schedule of Annual Load Factors for 2018/19

Annual Load Factors for specific generators are listed in Table 1.16. Generators commissioning or re-planting since April 2016 should use the generic Annual Load Factor for their technology in Table 1.17.

Table 1.16

Power Station	Technology	Specific ALF
ABERTHAW	Coal	59.6022%
ACHRUACH	Onshore_Wind	34.8994%
AN SUIDHE WIND FARM	Onshore_Wind	35.5087%
ARECLEOCH	Onshore_Wind	32.0140%
BAGLAN BAY	CCGT_CHP	31.5393%
BARKING	CCGT_CHP	6.1371%
BARROW OFFSHORE WIND LTD	Offshore_Wind	46.1536%
BARRY	CCGT_CHP	1.3905%
BEAULY CASCADE	Hydro	33.7216%
BEINNEUN	Onshore_Wind	33.2125%
BHLARAIDH	Onshore_Wind	34.0364%
BLACK LAW	Onshore_Wind	25.7180%
BLACKLAW EXTENSION	Onshore_Wind	26.9702%
BRIMSDOWN	CCGT_CHP	19.0289%
BURBO BANK	Offshore_Wind	30.4355%
CARRAIG GHEAL	Onshore_Wind	46.6097%
CARRINGTON	CCGT_CHP	46.6520%
CLUNIE SCHEME	Hydro	40.6769%
CLYDE (NORTH)	Onshore_Wind	35.6116%
CLYDE (SOUTH)	Onshore_Wind	35.4592%
CONNAHS QUAY	CCGT_CHP	21.7185%
CONON CASCADE	Hydro	52.8296%
CORRIEGARTH	Onshore_Wind	30.4133%
CORRIEMOILLIE	Onshore_Wind	33.6356%
CORYTON	CCGT_CHP	19.8664%
COTTAM	Coal	50.3095%
COTTAM DEVELOPMENT CENTRE	CCGT_CHP	25.1921%
COUR	Onshore_Wind	35.6667%
COWES	Gas_Oil	0.3264%
CRUACHAN	Pumped_Storage	8.7823%
CRYSTAL RIG II	Onshore_Wind	45.5546%
CRYSTAL RIG III	Onshore_Wind	36.2086%
DAMHEAD CREEK	CCGT_CHP	66.8248%
DEESIDE	CCGT_CHP	18.1722%
DERSALLOCH	Onshore_Wind	34.1494%
DIDCOT B	CCGT_CHP	38.5623%
DIDCOT GTS	Gas_Oil	0.1488%

Power Station	Technology	Specific ALF
DINORWIG	Pumped_Storage	15.0846%
DRAX	Coal	79.6443%
DUDGEON	Offshore_Wind	47.1631%
DUNGENESS B	Nuclear	63.8660%
DUNLAW EXTENSION	Onshore_Wind	30.5257%
DUNMAGLASS	Onshore_Wind	35.8822%
EDINBANE WIND	Onshore_Wind	33.1135%
EGGBOROUGH	Coal	63.5383%
ERROCHTY	Hydro	23.2289%
EWE HILL	Onshore_Wind	34.0023%
FALLAGO	Onshore_Wind	51.7981%
FARR WINDFARM TOMATIN	Onshore_Wind	37.9147%
FASNAKYLE G1 & G3	Hydro	39.8345%
FAWLEY CHP	CCGT_CHP	62.5662%
FFESTINIOGG	Pumped_Storage	4.3999%
FIDDLERS FERRY	Coal	40.5800%
FINLARIG	Hydro	56.3212%
FOYERS	Pumped_Storage	13.4982%
FREASDAIL	Onshore_Wind	33.7451%
GALAWHISTLE	Onshore_Wind	34.5506%
GARRY CASCADE	Hydro	59.0859%
GLANDFORD BRIGG	CCGT_CHP	1.3088%
GLEN APP	Onshore_Wind	31.2709%
GLENDOE	Hydro	30.3544%
GLENMORISTON	Hydro	43.1709%
GORDONBUSH	Onshore_Wind	47.3579%
GRAIN	CCGT_CHP	41.7253%
GRANGEMOUTH	CCGT_CHP	56.1972%
GREAT YARMOUTH	CCGT_CHP	33.2212%
GREATER GABBARD OFFSHORE WIND FARM	Offshore_Wind	44.5166%
GRIFFIN WIND	Onshore_Wind	29.3888%
GUNFLEET SANDS I	Offshore_Wind	49.2093%
GUNFLEET SANDS II	Offshore_Wind	46.2622%
GWYNT Y MOR	Offshore_Wind	56.5262%
HADYARD HILL	Onshore_Wind	30.3829%
HARESTANES	Onshore_Wind	26.3304%
HARTLEPOOL	Nuclear	69.3583%
HEYSHAM	Nuclear	75.2380%
HINKLEY POINT B	Nuclear	68.8829%
HUMBER GATEWAY OFFSHORE WIND FARM	Offshore_Wind	57.3959%
HUNTERSTON	Nuclear	81.5365%
IMMINGHAM	CCGT_CHP	58.8265%
INDIAN QUEENS	Gas_Oil	0.1348%
KEADBY	CCGT_CHP	11.0734%
KILBRAUR	Onshore_Wind	49.4309%
KILGALLIOCH	Onshore_Wind	31.3164%
KILLIN CASCADE	Hydro	40.8997%

Power Station	Technology	Specific ALF
KILLINGHOLME (NP)	CCGT_CHP	9.8987%
KINGS LYNN A	Gas_Oil	0.0000%
LANGAGE	CCGT_CHP	0.0001%
LINCS WIND FARM	Offshore_Wind	46.7495%
LITTLE BARFORD	CCGT_CHP	41.0920%
LOCHLUICHART	Onshore_Wind	27.0554%
LONDON ARRAY	Offshore_Wind	61.5269%
LYNEMOUTH	Coal	58.6875%
MARCHWOOD	CCGT_CHP	56.7248%
MARK HILL	Onshore_Wind	29.0827%
MEDWAY	CCGT_CHP	25.6102%
MILLENNIUM	Onshore_Wind	48.6806%
NANT	Hydro	34.2091%
ORMONDE	Offshore_Wind	46.5753%
PEMBROKE	CCGT_CHP	64.5459%
PEN Y CYMOEDD	Onshore_Wind	31.8733%
PETERBOROUGH	CCGT_CHP	1.5718%
PETERHEAD	CCGT_CHP	32.2130%
RACE BANK	Offshore_Wind	48.1055%
RATCLIFFE-ON-SOAR	Coal	47.5347%
ROBIN RIGG EAST	Offshore_Wind	49.7453%
ROBIN RIGG WEST	Offshore_Wind	51.0054%
ROCKSAVAGE	CCGT_CHP	21.9044%
RYE HOUSE	CCGT_CHP	8.6596%
SALTEND	CCGT_CHP	71.4533%
SEABANK	CCGT_CHP	23.7291%
SELLAFIELD	CCGT_CHP	21.2842%
SEVERN POWER	CCGT_CHP	28.2831%
SHERINGHAM SHOAL	Offshore_Wind	47.5173%
SHOREHAM	CCGT_CHP	26.6418%
SIZEWELL B	Nuclear	88.0078%
SLOY G2 & G3	Hydro	12.4721%
SOUTH HUMBER BANK	CCGT_CHP	37.0396%
SPALDING	CCGT_CHP	40.6492%
STAYTHORPE	CCGT_CHP	58.9352%
STRATHY NORTH & SOUTH	Onshore_Wind	40.0568%
SUTTON BRIDGE	CCGT_CHP	16.8559%
TAYLORS LANE	Gas_Oil	0.1462%
THANET OFFSHORE WIND FARM	Offshore_Wind	38.8172%
TODDLEBURN	Onshore_Wind	33.8403%
TORNESS	Nuclear	87.9113%
USKMOUTH	Coal	36.5674%
WALNEY I	Offshore_Wind	50.0902%
WALNEY II	Offshore_Wind	58.3767%
WEST BURTON	Coal	54.3955%
WEST BURTON B	CCGT_CHP	53.4925%
WEST OF DUDDON SANDS OFFSHORE WIND FARM	Offshore_Wind	45.8579%

Power Station	Technology	Specific ALF
WESTERMOST ROUGH	Offshore_Wind	46.3992%
WHITELEE	Onshore_Wind	29.9714%
WHITELEE EXTENSION	Onshore_Wind	25.7670%
WILTON	CCGT_CHP	11.6817%

Table 1.17 Generic ALFs

Technology	Generic ALF	Intermittent/ Conventional
Gas_Oil	0.1890%	Conventional
Pumped_Storage	10.4412%	Conventional
Tidal	18.9000%	Intermittent
Biomass	26.8847%	Conventional
Wave	31.0000%	Intermittent
Onshore_Wind	34.3377%	Intermittent
CCGT_CHP	43.2127%	Conventional
Hydro	41.3656%	Conventional
Offshore_Wind	49.5051%	Intermittent
Coal	54.0215%	Conventional
Nuclear	76.4001%	Conventional

Wider Generation charges are levied by reference to the Transmission Licensee's substation to which the party is connected or deemed connected. Transmission Licensee's substations are assigned to a generation zone as shown on the zonal maps.

If a party is unclear from looking at the geographical map which zone the relevant National Grid substation is assigned to, then those parties should refer to the electrical version of the map of Generation Use of System Tariff Zones as at 1 April 2018 for clarification. Confirmation of the zoning of a particular generator can be obtained by contacting National Grid's Revenue Team.

Small Generators' Discount

In accordance with Licence Condition C13 in National Grid's Transmission Licence, small generators connected to the 132kV transmission system are eligible for a reduction in the listed Generation TNUoS tariffs. This discount has been calculated in accordance with direction from the Authority and equates to 25% of the combined generation and demand residual components of the TNUoS tariffs. For 2018/19, this figure has been calculated as £11.102227/kW.

Schedule of Transmission Network Use of System Local Substation Generation Charges (£/kW) in 2018/19

Table 1.8 Onshore Local Substation Tariffs (£/kW)

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 2018, which has been updated from the examples listed in the Statement of Use of System Methodology.

		Local Substation Tariff (£/kW)		
Sum of TEC at connecting Substation	**Connection Type**	**132kV**	**275kV**	**400kV**
<1320 MW	No redundancy	0.191582	0.109597	0.078967
<1320 MW	Redundancy	0.422039	0.261118	0.189906
>=1320 MW	No redundancy		0.343635	0.248518
>=1320 MW	Redundancy		0.564161	0.411791

The above tariffs reflect the cost of the transmission substation equipment provided to facilitate generation connecting to an onshore substation.

Table 1.9 Offshore Local Substation Tariffs (£/kW)

The following table provides the Local Substation Generation TNUoS tariffs applicable to generation connecting to offshore transmission infrastructure from 1 April 2018:

Offshore Power Station	Local Substation Tariff (£/kW)
Barrow	7.720148
Greater Gabbard	14.474370
Gunfleet	16.708070
Gwynt Y Mor	17.627466
Lincs	14.427677
London Array	9.821298
Ormonde	23.866552
Robin Rigg East	-0.441499
Robin Rigg West	-0.441499
Sheringham Shoal	23.059225
Thanet	17.560438
Walney 1	20.597966
Walney 2	20.448162
West of Duddon Sands	7.948192
Westermost Rough	16.736222
Humber Gateway	14.027433

Further local substation tariffs applicable to generation connecting to offshore transmission infrastructure during 2018/19 will be published in future revisions of this statement following the completion of the tender process relating to the sale of the relating offshore transmission assets.

Schedule of Transmission Network Use of System Local Circuit Charges (£/kW) in 2018/19

Table 1.10

The following table provides the Local Circuit Generation TNUoS tariffs applicable to directly connected generation not connected to the main integrated onshore GB Transmission Network from 1 April 2018.

Substation Name	(£/kW)	Substation Name	(£/kW)	Substation Name	(£/kW)
Achruach	4.096258	Dunlaw Extension	1.430014	Luichart	0.547243
Aigas	0.624082	Dunhill	1.366742	Mark Hill	0.835479
An Suidhe	2.907302	Dumnaglass	1.771589	Marchwood	0.364258
Arecleoch	1.981850	Edinbane	6.530545	Millennium Wind	1.742733
Baglan Bay	0.725926	Ewe Hill	1.311273	Moffat	0.160084
Beinneun Wind Farm	1.433206	Fallago	0.572436	Mossford	0.427674
Bhlaraidh Wind Farm	0.627905	Farr	3.402170	Nant	-1.172241
Black Hill	0.823271	Fernoch	4.197281	Necton	-0.351536
BlackCraig Wind Farm	6.006840	Ffestiniogg	0.241415	Rhigos	0.097111
Black Law	1.667371	Finlarig	0.305539	Rocksavage	0.016893
BlackLaw Extension	3.535877	Foyers	0.718512	Saltend	0.325367
Carrington	-0.032263	Galawhistle	1.411300	South Humber Bank	0.902631
Clyde (North)	0.104646	Glendoe	1.755201	Spalding	0.267922
Clyde (South)	0.121018	Glenglass	9.266284	Strathbrora	0.121450
Corriegarth	3.008295	Gordonbush	0.248568	Stronelairg	1.375663
Corriemoillie	1.587573	Griffin Wind	4.075370	Strathy Wind	1.997707
Coryton	0.049502	Hadyard Hill	2.641167	Wester Dod	0.814285
Cruachan	1.805084	Harestanes	2.390520	Whitelee	0.101270
Crystal Rig	0.489589	Hartlepool	0.573288	Whitelee Extension	0.281531
Culligran	1.653833	Hedon	0.172665	Gills Bay	2.403062
Deanie	2.717011	Invergarry	1.353893	Kype Muir	1.415343
Dersalloch	2.298524	Kilgallioch	1.004263	Middle Muir	1.891434
Didcot	0.496119	Kilmorack	0.188451	Dorenell	2.002552
Dinorwig	2.289432	Langage	0.627620	Killingholme	0.676669
Millennium South	0.898567	Aberdeen Bay	2.487963		
Middleton	0.104624	Lochay	0.349188		

The above tariffs reflect the cost of transmission circuits between the point of connection and the main interconnected transmission system.

Table 1.11

The following table provides the Local Circuit Generation TNUoS tariffs applicable to generation connecting to offshore transmission infrastructure from 1 April 2018:

Offshore Power Station	Local Circuit Tariff (£/kW)
Barrow	40.391807
Greater Gabbard	33.260677
Gunfleet	15.339316
Gwynt Y Mor	17.365232
Lincs	56.487653
London Array	33.450796
Ormonde	44.461150
Robin Rigg East	29.245531
Robin Rigg West	29.245531
Sheringham Shoal	27.043069
Thanet	32.721373
Walney 1	41.020795
Walney 2	41.382190
West of Duddon Sands	39.219404
Westermost Rough	28.310526
Humber Gateway	31.650564

Further local circuit tariffs applicable to generation connecting to offshore transmission infrastructure during 2018/19 will be published in future revisions of this statement following the completion of the tender process relating to the sale of the relating offshore transmission assets.

Schedule of Transmission Network Use of System STTEC and LDTEC Charges in 2018/19

Table 1.12

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 2018.

Power Station	LDTEC Tariff (£/kW/Week)		STTEC Tariff (£/kW)		
	Higher Rate	Lower Rate	28 Days	35 Days	42 Days
Aberdeen Offshore Wind Farm	1.296627	0.094821	5.186508	6.483135	7.779762
Aberthaw	0.083732	0.006123	0.334928	0.418660	0.502392
A'Chruach Wind Farm	0.614155	0.044913	2.456620	3.070775	3.684930
Afton	0.351656	0.025716	1.406624	1.758280	2.109936
Aigas	0.633555	0.046331	2.534220	3.167775	3.801330
Aikengall II Windfarm	0.611400	0.044711	2.445600	3.057000	3.668400
An Suidhe Wind Farm, Argyll (SRO)	0.553317	0.040464	2.213268	2.766585	3.319902
Arecleoch	0.976757	0.071430	3.907028	4.883785	5.860542
Bad a Cheo Wind Farm	1.250252	0.091430	5.001008	6.251260	7.501512
Baglan Bay	0.171052	0.012509	0.684208	0.855260	1.026312
Barrow Offshore Wind Farm	2.106141	0.154021	8.424564	10.530705	12.636846
Barry Power Station	0.189191	0.013835	0.756764	0.945955	1.135146
Beatrice Wind Farm	1.296627	0.094821	5.186508	6.483135	7.779762
Beinneun Wind Farm	1.282066	0.093757	5.128264	6.410330	7.692396
Bhlaraidh Wind Farm	1.242704	0.090878	4.970816	6.213520	7.456224
Blackcraig Wind Farm	0.611695	0.044733	2.446780	3.058475	3.670170
Blacklaw	0.632104	0.046225	2.528416	3.160520	3.792624
Blacklaw Extension	0.150833	0.011030	0.603332	0.754165	0.904998
BP Grangemouth	0.402476	0.029433	1.609904	2.012380	2.414856
Burbo Bank Extension Offshore Wind Farm	0.000000	0.000000	0.000000	0.000000	0.000000
Carraig Gheal Wind Farm	0.649868	0.047524	2.599472	3.249340	3.899208
Carrington Power Station	0.052771	0.003859	0.211084	0.263855	0.316626
CDCL	0.076292	0.005579	0.305168	0.381460	0.457752
Clunie	0.532337	0.038929	2.129348	2.661685	3.194022
Clyde North	0.573398	0.041932	2.293592	2.866990	3.440388
Clyde South	0.573832	0.041964	2.295328	2.869160	3.442992
Connahs Quay	0.077939	0.005700	0.311756	0.389695	0.467634
Corby	0.000000	0.000000	0.000000	0.000000	0.000000
Corriegarth	0.810719	0.059287	3.242876	4.053595	4.864314
Corriemoillie Wind Farm	0.760219	0.055594	3.040876	3.801095	4.561314
Coryton	0.000000	0.000000	0.000000	0.000000	0.000000
Cottam	0.064379	0.004708	0.257516	0.321895	0.386274

Power Station	LDTEC Tariff (£/kW/Week)		STTEC Tariff (£/kW)		
	Higher Rate	Lower Rate	28 Days	35 Days	42 Days
Cour Wind Farm	0.413193	0.030216	1.652772	2.065965	2.479158
Crossdykes	0.488990	0.035759	1.955960	2.444950	2.933940
Cruachan	0.080400	0.005880	0.321600	0.402000	0.482400
Crystal Rig 2 Wind Farm	0.621387	0.045442	2.485548	3.106935	3.728322
Crystal Rig 3 Wind Farm	0.599492	0.043840	2.397968	2.997460	3.596952
Culligran	0.687529	0.050278	2.750116	3.437645	4.125174
Damhead Creek	0.000000	0.000000	0.000000	0.000000	0.000000
Deanie	0.733375	0.053631	2.933500	3.666875	4.400250
Deeside	0.068060	0.004977	0.272240	0.340300	0.408360
Dersalloch Wind Farm	0.428043	0.031302	1.712172	2.140215	2.568258
Didcot B	0.000000	0.000000	0.000000	0.000000	0.000000
Dinorwig	0.241840	0.017686	0.967360	1.209200	1.451040
Dorenell Wind Farm	1.240194	0.090694	4.960776	6.200970	7.441164
Drax (Biomass)	0.139684	0.010215	0.558736	0.698420	0.838104
Drax (Coal)	0.161303	0.011796	0.645212	0.806515	0.967818
Dudgeon Offshore Wind Farm	0.000000	0.000000	0.000000	0.000000	0.000000
Dungeness B	0.000000	0.000000	0.000000	0.000000	0.000000
Dunlaw Extension	0.050120	0.003665	0.200480	0.250600	0.300720
Dunmaglass Wind Farm	0.766140	0.056027	3.064560	3.830700	4.596840
East Anglia One	0.000000	0.000000	0.000000	0.000000	0.000000
Edinbane Wind, Skye	0.951401	0.069575	3.805604	4.757005	5.708406
Eggborough	0.131029	0.009582	0.524116	0.655145	0.786174
Enfield	0.000000	0.000000	0.000000	0.000000	0.000000
Errochty	0.489293	0.035782	1.957172	2.446465	2.935758
Ewe Hill	0.000000	0.000000	0.000000	0.000000	0.000000
Fallago Rig Wind Farm	0.637426	0.046615	2.549704	3.187130	3.824556
Farr Wind Farm, Tomatin	0.859308	0.062841	3.437232	4.296540	5.155848
Fasnakyle G1 & G2	1.169818	0.085548	4.679272	5.849090	7.018908
Fawley CHP	0.000000	0.000000	0.000000	0.000000	0.000000
Ffestiniog	0.087266	0.006382	0.349064	0.436330	0.523596
Fiddlers Ferry	0.124446	0.009101	0.497784	0.622230	0.746676
Finlarig	0.468452	0.034258	1.873808	2.342260	2.810712
Foyers	0.069211	0.005061	0.276844	0.346055	0.415266
Freasdail	0.386046	0.028231	1.544184	1.930230	2.316276
Galawhistle Wind Farm	0.050413	0.003687	0.201652	0.252065	0.302478
Galloper Wind Farm	0.000000	0.000000	0.000000	0.000000	0.000000
Glen App Windfarm	0.381756	0.027918	1.527024	1.908780	2.290536
Glendoe	0.645542	0.047208	2.582168	3.227710	3.873252
Glenmoriston	0.588703	0.043051	2.354812	2.943515	3.532218
Gordonbush Wind	1.301688	0.095191	5.206752	6.508440	7.810128

Power Station	LDTEC Tariff (£/kW/Week)		STTEC Tariff (£/kW)		
	Higher Rate	Lower Rate	28 Days	35 Days	42 Days
Grain	0.000000	0.000000	0.000000	0.000000	0.000000
Great Yarmouth	0.000000	0.000000	0.000000	0.000000	0.000000
Greater Gabbard Offshore Wind Farm	2.371394	0.173418	9.485576	11.856970	14.228364
Griffin Wind Farm	1.293641	0.094603	5.174564	6.468205	7.761846
Gunfleet Sands II Offshore Wind Farm	1.115358	0.081565	4.461432	5.576790	6.692148
Gunfleet Sands Offshore Wind Farm	1.115215	0.081555	4.460860	5.576075	6.691290
Gwynt Y Mor Offshore Wind Farm	1.677771	0.122694	6.711084	8.388855	10.066626
Hadyard Hill	0.436047	0.031888	1.744188	2.180235	2.616282
Harestanes	0.531780	0.038889	2.127120	2.658900	3.190680
Hartlepool	0.415604	0.030393	1.662416	2.078020	2.493624
Heysham Power Station	0.235623	0.017231	0.942492	1.178115	1.413738
Hinkley Point B	0.000000	0.000000	0.000000	0.000000	0.000000
Hornsea Power Station 1B	0.000000	0.000000	0.000000	0.000000	0.000000
Humber Gateway Offshore Wind Farm	2.307892	0.168774	9.231568	11.539460	13.847352
Hunterston	1.145900	0.083799	4.583600	5.729500	6.875400
Immingham	0.128497	0.009397	0.513988	0.642485	0.770982
Indian Queens	0.000000	0.000000	0.000000	0.000000	0.000000
Invergarry	0.726088	0.053098	2.904352	3.630440	4.356528
J G Pears	0.046126	0.003373	0.184504	0.230630	0.276756
Keadby	0.061369	0.004488	0.245476	0.306845	0.368214
Keith Hill Wind Farm	0.060858	0.004451	0.243432	0.304290	0.365148
Kilbraur Wind Farm	1.316436	0.096270	5.265744	6.582180	7.898616
Kilgallioch	0.923397	0.067527	3.693588	4.616985	5.540382
Killingholme	0.120106	0.008783	0.480424	0.600530	0.720636
Kilmorack	0.606380	0.044344	2.425520	3.031900	3.638280
Kings Lynn A	0.000000	0.000000	0.000000	0.000000	0.000000
Kype Muir	0.642955	0.047019	2.571820	3.214775	3.857730
Langage	0.000000	0.000000	0.000000	0.000000	0.000000
Lincs Offshore Wind Farm	3.591092	0.262614	14.364368	17.955460	21.546552
Little Barford	0.000000	0.000000	0.000000	0.000000	0.000000
Lochay	0.425343	0.031105	1.701372	2.126715	2.552058
Lochluichart	0.723549	0.052913	2.894196	3.617745	4.341294
London Array Offshore Wind Farm	2.210011	0.161616	8.840044	11.050055	13.260066
Luichart	0.712715	0.052120	2.850860	3.563575	4.276290
Lynemouth Power Station	0.260542	0.019053	1.042168	1.302710	1.563252
Marchwood	0.000000	0.000000	0.000000	0.000000	0.000000
Marex	0.071727	0.005245	0.286908	0.358635	0.430362
Mark Hill Wind Farm	0.908295	0.066423	3.633180	4.541475	5.449770
Medway Power Station	0.000000	0.000000	0.000000	0.000000	0.000000
MeyGen Tidal	1.244613	0.091018	4.978452	6.223065	7.467678

Power Station	LDTEC Tariff (£/kW/Week)		STTEC Tariff (£/kW)		
	Higher Rate	Lower Rate	28 Days	35 Days	42 Days
Middle Muir Wind Farm	0.663646	0.048532	2.654584	3.318230	3.981876
Millennium South	1.210806	0.088545	4.843224	6.054030	7.264836
Millennium Wind (Stage 3), Ceannacroc	0.770203	0.056324	3.080812	3.851015	4.621218
Minnygap	0.000000	0.000000	0.000000	0.000000	0.000000
Mossford	0.694339	0.050776	2.777356	3.471695	4.166034
Nant	0.100911	0.007380	0.403644	0.504555	0.605466
Neart Na Gaoithe Offshore Wind Farm	0.636729	0.046563	2.546916	3.183645	3.820374
Ormonde Offshore Wind Farm	3.716760	0.271804	14.867040	18.583800	22.300560
Orrin	0.671886	0.049135	2.687544	3.359430	4.031316
Pembroke Power Station	0.194599	0.014231	0.778396	0.972995	1.167594
Pen Y Cymoedd Wind Farm	0.000000	0.000000	0.000000	0.000000	0.000000
Peterborough	0.004565	0.000334	0.018260	0.022825	0.027390
Peterhead	0.191175	0.013981	0.764700	0.955875	1.147050
Pogbie Wind Farm	0.050800	0.003715	0.203200	0.254000	0.304800
Race Bank Wind Farm	0.000000	0.000000	0.000000	0.000000	0.000000
Rampion Offshore Wind Farm	0.000000	0.000000	0.000000	0.000000	0.000000
Ratcliffe on Soar	0.000000	0.000000	0.000000	0.000000	0.000000
Robin Rigg East Offshore Wind Farm	1.852071	0.135441	7.408284	9.260355	11.112426
Robin Rigg West Offshore Wind Farm	1.854254	0.135600	7.417016	9.271270	11.125524
Rocksavage	0.078738	0.005758	0.314952	0.393690	0.472428
Rye House	0.000000	0.000000	0.000000	0.000000	0.000000
Saltend	0.156510	0.011445	0.626040	0.782550	0.939060
Sanquhar Wind Farm	0.786466	0.057514	3.145864	3.932330	4.718796
Seabank	0.000000	0.000000	0.000000	0.000000	0.000000
Sellafield	0.024290	0.001776	0.097160	0.121450	0.145740
Severn Power	0.136846	0.010007	0.547384	0.684230	0.821076
Sheringham Shoal Offshore Wind Farm	2.536360	0.185482	10.145440	12.681800	15.218160
Shoreham	0.000000	0.000000	0.000000	0.000000	0.000000
Sizewell B	0.000000	0.000000	0.000000	0.000000	0.000000
Sloy G2 and G3	0.222331	0.016259	0.889324	1.111655	1.333986
South Humber Bank	0.174147	0.012735	0.696588	0.870735	1.044882
Spalding	0.000000	0.000000	0.000000	0.000000	0.000000
Spalding Energy Expansion	0.010183	0.000745	0.040732	0.050915	0.061098
Staythorpe C	0.038669	0.002828	0.154676	0.193345	0.232014
Stella North EFR Submission	0.095620	0.006993	0.382480	0.478100	0.573720
Strathy North and South Wind	0.783486	0.057296	3.133944	3.917430	4.700916
Stronelairg	1.145776	0.083790	4.583104	5.728880	6.874656
Sutton Bridge	0.000000	0.000000	0.000000	0.000000	0.000000
Taylors Lane	0.000000	0.000000	0.000000	0.000000	0.000000
Thanet Offshore Wind Farm	2.614876	0.191224	10.459504	13.074380	15.689256

Power Station	LDTEC Tariff (£/kW/Week)		STTEC Tariff (£/kW)		
	Higher Rate	Lower Rate	28 Days	35 Days	42 Days
Toddleburn Wind Farm	0.049411	0.003613	0.197644	0.247055	0.296466
Torness	0.861640	0.063011	3.446560	4.308200	5.169840
Uskmouth	0.107565	0.007866	0.430260	0.537825	0.645390
Walney 3 Offshore Wind Farm	0.114286	0.008358	0.457144	0.571430	0.685716
Walney 4 Offshore Wind Farm	0.127995	0.009360	0.511980	0.639975	0.767970
Walney I Offshore Wind Farm	3.349936	0.244978	13.399744	16.749680	20.099616
Walney II Offshore Wind Farm	3.370470	0.246480	13.481880	16.852350	20.222820
West Burton A	0.040823	0.002985	0.163292	0.204115	0.244938
West Burton B	0.041251	0.003017	0.165004	0.206255	0.247506
West Burton Energy Storage	0.041251	0.003017	0.165004	0.206255	0.247506
West of Duddon Sands Offshore Wind Farm	2.608056	0.190725	10.432224	13.040280	15.648336
Westermost Rough Offshore Wind Farm	2.291088	0.167546	9.164352	11.455440	13.746528
Whitelee	0.862262	0.063057	3.449048	4.311310	5.173572
Whitelee Extension	0.859979	0.062890	3.439916	4.299895	5.159874
Whiteside Hill Wind Farm	0.772757	0.056511	3.091028	3.863785	4.636542
Wilton	0.100205	0.007328	0.400820	0.501025	0.601230
Windy Standard II (Brockloch Rig 1) Wind Farm	0.358031	0.026183	1.432124	1.790155	2.148186

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 2018/19 will be published in future revisions of this statement following the completion of the tender process relating to the sale of the relating offshore transmission assets.

Schedule of Pre-Asset Transfer Related Embedded Transmission Use of System Charges in 2018/19

Table 1.13

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 2018. The relating charge is used to recover the element of the Offshore Transmission Operator's Revenue that relates to distribution charges paid during the development of the offshore transmission network.

Offshore Power Station	Pre-Asset Transfer ETUoS Tariff (£/kW)
Barrow	1.002984
Gunfleet	2.867007
Ormonde	0.354318
Robin Rigg East	9.064537
Robin Rigg West	9.064537
Sheringham Shoal	0.587837
Thanet	0.787719

Please note that in addition to the charges listed above, any enduring distribution charges made to the NETSO 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 2018/19 will be published in future revisions of this statement following the completion of the tender process relating to the sale of the relating offshore transmission assets.

Schedule of Transmission Network Use of System Demand Charges for Gross HH Demand (£/kW), Energy Consumption Charges (p/kWh) and Embedded Export Tariff (£/kW) for 2018/19

Table 1.14

The following table provides the Zonal Demand, Embedded Export and Energy Consumption TNUoS tariffs applicable from 1 April 2018.

Zone No.	Zone Name	HH Gross Demand Zonal Tariff (£/kW)	NHH Demand Zonal Tariff (p/kWh)	Embedded Export Tariff (£/kW)
1	Northern Scotland	26.304232	3.509185	11.357806
2	Southern Scotland	29.070427	3.918340	14.124001
3	Northern	37.816827	4.999041	22.870402
4	North West	43.806241	5.881985	28.859815
5	Yorkshire	44.073211	5.785198	29.126786
6	N Wales & Mersey	45.512765	5.928967	30.566339
7	East Midlands	47.501489	6.345087	32.555063
8	Midlands	48.796991	6.732502	33.850566
9	Eastern	49.428549	7.157677	34.482123
10	South Wales	45.804410	5.552697	30.857984
11	South East	52.110398	7.713198	37.163973
12	London	54.906683	6.106170	39.960257
13	Southern	53.419807	7.317489	38.473382
14	South Western	51.867520	7.560093	36.921094

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 and embedded export volume 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 2018/19 the demand residual element to two decimal places is £46.93/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 energy consumption 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.

Embedded Export Tariff

For 2018/19 the components of the Embedded Export Tariff include:

- Avoided GSP Infrastructure Credit £3.220000 / kW
- Phased Residual £29.360000 / kW

Small Generators Discount

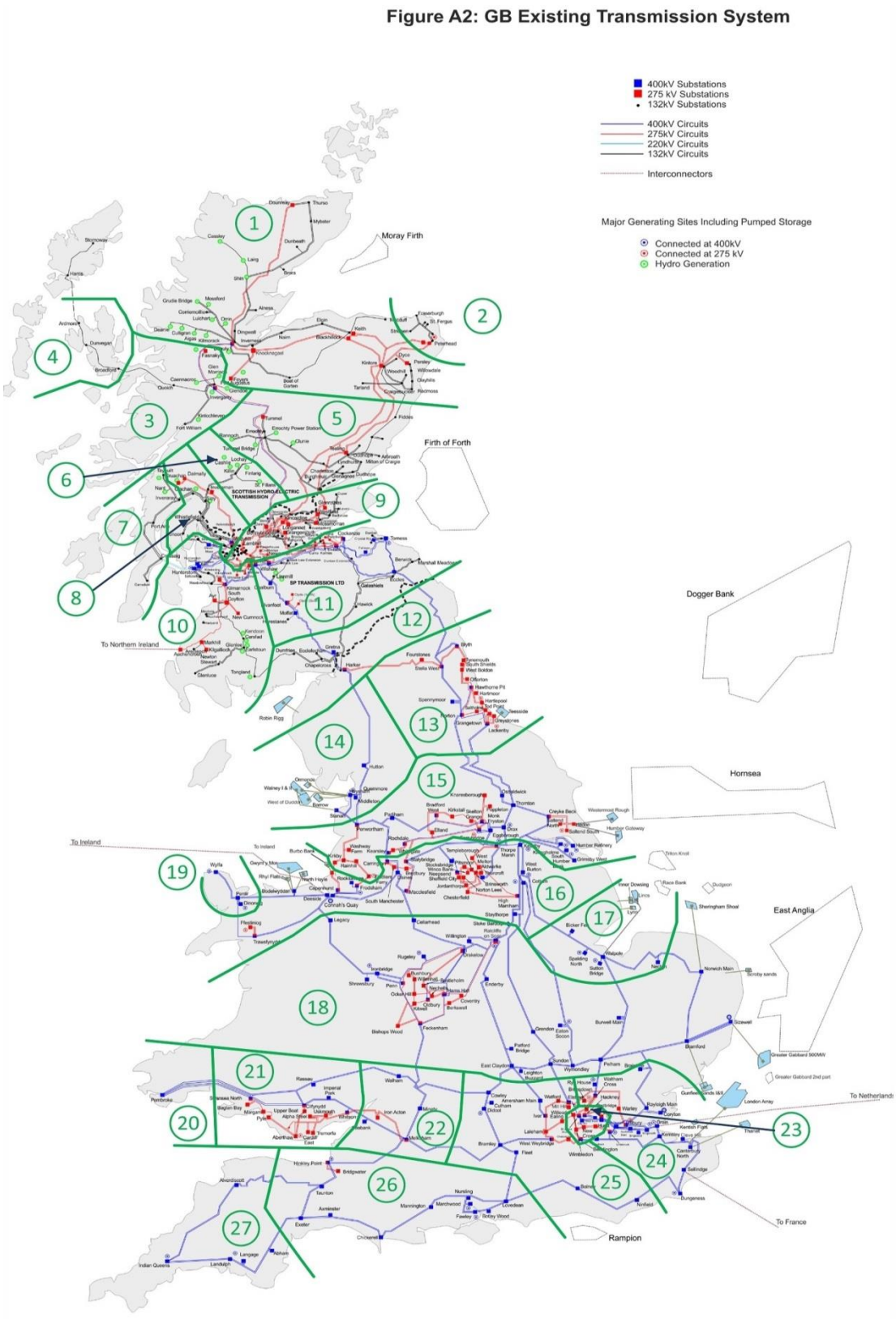
In accordance with Standard Licence Condition C13 governing the adjustments to use of system charges for the small generators discount, a unit amount of £0.593000/kW to the demand tariff and 0.080127p/kWh to the energy consumption tariff has been included on a non-discriminatory and non-locational basis.

Standard Licence Condition C13 requires the small generators discount mechanism to be revenue neutral over the period of its operation so that the net effect on revenue of the licence condition is zero. It will therefore be necessary to manage any under or over recovery associated with the small generators discount separately from the under/over recovery mechanism within National Grid's main revenue restriction. National Grid calculates the unit amount added to the demand tariffs using a forecast of the total discount payable to eligible generators, and a forecast of the demand charging base. If either of these factors outturns differently from the original forecast then an under/over recovery would occur. The amount of any under/over recovery would be added to the revenue recovery used to derive the unit amount in subsequent years.

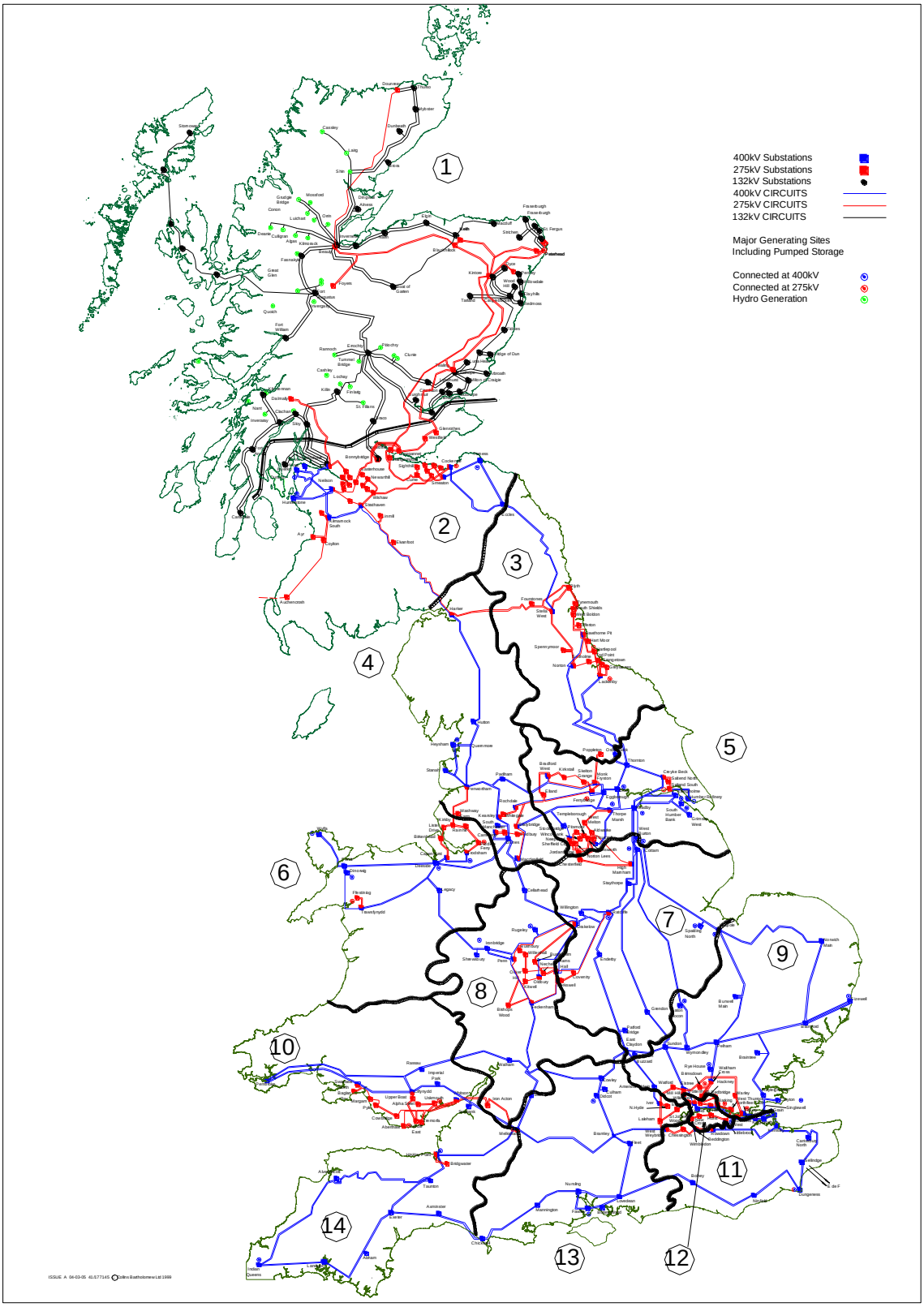
Zonal Maps Applicable for 2018/19

Generation Use of System Tariff Zones (Geographical map as at 1 April 2018)

Figure A2: GB Existing Transmission System



Demand Use of System Tariff Zones (Geographical map as at 1 April 2018)



Schedule 2

Detail of the External Incentive Scheme for the Balancing Services Use of System Charges

The External Incentive Scheme for the Balancing Services Use of System Charges will no longer apply from 1 April 2018.

The incentive arrangements for the System Operator for 2018/19 are being developed: https://www.ofgem.gov.uk/publications-and-updates/policy-decision-electricity-system-operator-regulatory-and-incentives-framework-april-2018.

Once agreed, if details need to be set out in the Statement of Use of System Charges, the Statement will be reissued.

Schedule 3

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 based on reasonable costs incurred by National Grid including where appropriate, charges from the Transmission Owners (TO's) in accordance with their charging statements. The application process and options available are set out 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 as shown on the map and tables on the next page. 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 National Grid from the standard fee published in their charging statements) to process an offer of terms, National Grid reserves the right to remove the option for a fixed price application fee.

The map divides GB into three zones based on the Boundary of Influence map defined in Schedule 4 of the STC (SO-TO Code). Zone A maps onto the area NGC South, Zone B maps to NGC North and SPT South, and Zone C maps to SPT North, SHE T South and SHE T North.

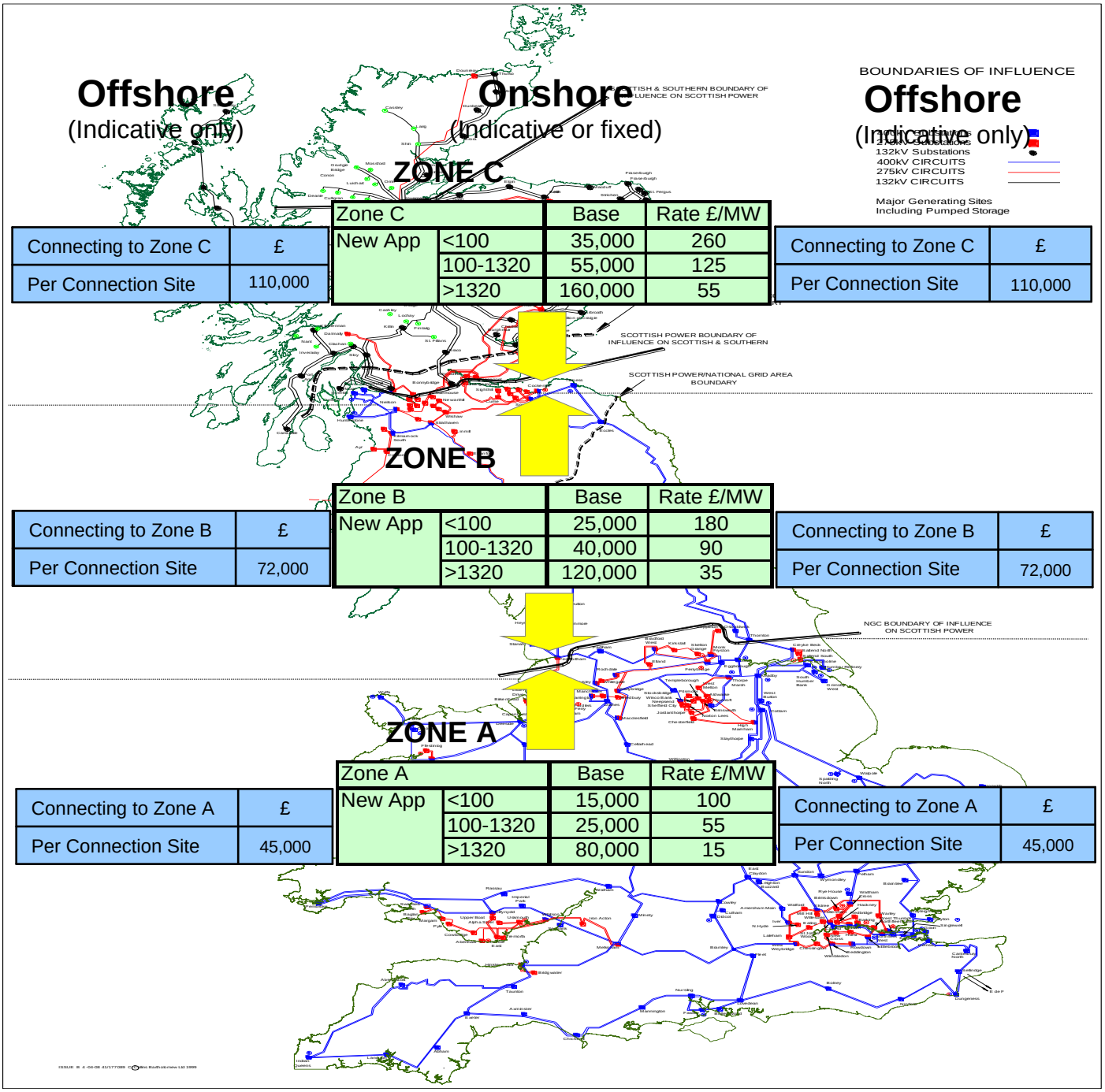
The application fees indicated will be reviewed on an annual basis and reflect any changes to the Boundaries of Influence. It should be noted that the zone to which a particular user is applying is determined by the location of the connection to the National Electricity Transmission System and not by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

All application fees are subject to VAT and are capped at £400,000 + VAT.

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).

Entry Application Fees for New Bilateral Agreements



Zone C		Base	Rate £/MW
New App	<100	35,000	260
	100-1320	55,000	125
	>1320	160,000	55

Connecting to Zone C	£
Per Connection Site	110,000

Connecting to Zone C	£
Per Connection Site	110,000

Zone B		Base	Rate £/MW
New App	<100	25,000	180
	100-1320	40,000	90
	>1320	120,000	35

Connecting to Zone B	£
Per Connection Site	72,000

Connecting to Zone B	£
Per Connection Site	72,000

Zone A		Base	Rate £/MW
New App	<100	15,000	100
	100-1320	25,000	55
	>1320	80,000	15

Connecting to Zone A	£
Per Connection Site	45,000

Connecting to Zone A	£
Per Connection Site	45,000

1. New Onshore Application Fee = Base + (MW * Rate)
2. TEC Increase[1] = Base + (TEC Increase * Rate)
3. New Offshore Application Fee = Number of offshore Connection Sites * Fee

[1] The base value and Rate used are the values associated with the change in TEC not the resulting total TEC being applied for.

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

Table 3.1.1: Application Fees in Zone A, when NG South is Host TO

This table details the adjustments applicable for certain scenarios to be taken into consideration when calculating the value of an Application Fee.

Application Type	MW	Base Fee (£)	Rate (£/MW)
New Onshore Application (Entry)	<100MW 100 - 1320MW >1320MW	15,000 25,000 80,000	100 55 15
New Onshore Supply Point (Exit)	<100MW >100MW	37,000 37,000	- -
New Offshore Application (Indicative Only) (Per connection site)	-	45,000	-
Onshore Modification Application to Existing Supply Point (Exit)	<100 >100	28,000 28,000	-
Statement of Works (Exit)	-	2,750	-
Modification Application Following Statement Of Works (Project Progression) (Exit)	-	7,500 or 15,000	-
TEC Increase	<100MW 100 - 1320MW >1320MW	15,000 25,000 80,000	100 55 15

Application Type	Fraction of New Application Fee
Onshore Modification Application (Entry)	0.75
Offshore Modification Application (Entry)	0.75
Embedded Generation New Application (Entry) BEGA / BELLA	0.5
Embedded Generation Modification Application (Entry) BEGA / BELLA	0.4
Design Variation in addition to Standard Offer (Entry)	1.5

Table 3.1.2: Application Fees in Zone B, when SPT South is Host TO

Application Type	MW	Base Fee (£)	Rate (£/MW)
New Onshore Application (Entry)	<100MW 100 - 1320MW >1320MW	25,000 40,000 120,000	180 90 35
New Onshore Supply Point (Exit)	<100MW >100MW	41,000 52,000	- -
New Offshore Application (Indicative Only) (Per connection site)	-	72,000	-
Onshore Modification Application to Existing Supply Point (Exit)	<100 >100	31,000 39,000	-
Statement of Works (Exit)	-	3,000	-
Modification Application Following Statement Of Works (Project Progression) (Exit)	-	8,500 or 16,500	-
TEC Increase	<100MW 100 - 1320MW >1320MW	25,000 40,000 120,000	180 90 35

Application Type	Fraction of New Application Fee
Onshore Modification Application (Entry)	0.75
Offshore Modification Application (Entry)	0.75
Embedded Generation New Application (Entry) BEGA / BELLA	0.5
Embedded Generation Modification Application (Entry) BEGA / BELLA	0.4
Design Variation in addition to Standard Offer (Entry)	1.5

Table 3.1.3: Application Fees in Zone B, when NG North is Host TO

Application Type	MW	Base Fee (£)	Rate (£/MW)
New Onshore Application (Entry)	<100MW 100 - 1320MW >1320MW	25,000 40,000 120,000	180 90 35
New Onshore Supply Point (Exit)	<100MW >100MW	41,000 52,000	- -
New Offshore Application (Indicative Only) (Per connection site)	-	72,000	-
Onshore Modification Application to Existing Supply Point (Exit)	<100 >100	31,000 39,000	-
Statement of Works (Exit)	-	3,000	-
Modification Application Following Statement Of Works (Project Progression) (Exit)	-	8,500 or 16,500	-
TEC Increase	<100MW 100 - 1320MW >1320MW	25,000 40,000 120,000	180 90 35

Application Type	Fraction of New Application Fee
Onshore Modification Application (Entry)	0.75
Offshore Modification Application (Entry)	0.75
Embedded Generation New Application (Entry) BEGA / BELLA	0.5
Embedded Generation Modification Application (Entry) BEGA / BELLA	0.4
Design Variation in addition to Standard Offer (Entry)	1.5

Table 3.1.4: Application Fees in Zone C, when SHE Transmission is Host TO

Application Type	MW	Base Fee (£)	Rate (£/MW)
New Onshore Application (Entry)	<100MW 100 - 1320MW >1320MW	35,000 55,000 160,000	260 125 55
New Onshore Supply Point (Exit)	<100MW >100MW	38,000 60,000	- -
New Offshore Application (Indicative Only) (Per connection site)	-	110,000	-
Onshore Modification Application to Existing Supply Point (Exit)	<100 >100	29,000 45,000	-
Statement of Works (Exit)	-	1,000	-
Modification Application Following Statement Of Works (Project Progression) (Exit)	-	4,500 or 17,200	-
TEC Increase	<100MW 100 - 1320MW >1320MW	35,000 55,000 160,000	260 92 55

Application Type	Fraction of New Application Fee
Onshore Modification Application (Entry)	0.75
Offshore Modification Application (Entry)	0.75
Embedded Generation New Application (Entry) BEGA / BELLA	0.5
Embedded Generation Modification Application (Entry) BEGA / BELLA	0.4
Design Variation in addition to Standard Offer (Entry)	1.5

Table 3.1.5: Application Fees in Zone C, when SPT North is Host TO

Application Type	MW	Base Fee (£)	Rate (£/MW)
New Onshore Application (Entry)	<100MW 100 - 1320MW >1320MW	35,000 55,000 160,000	260 125 55
New Onshore Supply Point (Exit)	<100MW >100MW	38,000 60,000	- -
New Offshore Application (Indicative Only) (Per connection site)	-	110,000	-
Onshore Modification Application to Existing Supply Point (Exit)	<100 >100	29,000 45,000	-
Statement of Works (Exit)	-	1,000	-
Modification Application Following Statement Of Works (Project Progression) (Exit)	-	4,500 or 17,200	-
TEC Increase	<100MW 100 - 1320MW >1320MW	35,000 55,000 160,000	260 125 55

Application Type	Fraction of New Application Fee
Onshore Modification Application (Entry)	0.75
Offshore Modification Application (Entry)	0.75
Embedded Generation New Application (Entry) BEGA / BELLA	0.5
Embedded Generation Modification Application (Entry) BEGA / BELLA	0.4
Design Variation in addition to Standard Offer (Entry)	1.5

Table 3.1.6: Other Application Fees:

Application Type	Zone A	Zone B	Zone C
TEC Exchange Request (no system works)	£10,000	£10,000	£17,000
Request for STTEC or SNSTF	£10,000		
Directly Connected Reactive Only Service Provider	£20,000	£21,000	£22,000
Suppliers and Interconnector Users	£5,000		
Assign, transfer or novate a bilateral agreement or minor admin changes	£3,000		

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 national Grid to identify the transmission reinforcement works and the works at the GSP (mod notice process), the application fee will be indicative only.

Table 3.2

Limited Duration TEC (LDTEC)		Duration of LDTEC (t)	Zone	£ (£'000)	Agreement Type (as Table C)
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 3.3

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

Examples

1. Entry Application Fee for a New Bilateral Agreement onshore
300MW Generator wishing to connect to the transmission system in Zone A
Application Fee = £25,000 + (300 * 55) = £41,500

2. Entry Application Fee for a New Bilateral Agreement offshore
2000MW Generator wishing to connect to the transmission system in Zone B
Two Connection Sites
Application Fee = 2 * £72,000 = £144,000

3. Entry Application Fee for a Modification to an existing Bilateral Agreement offshore
2000MW Generator in Zone B seeking to alter a commissioning date where there are 2 affected transmission interface sites
This would be a Modification Application
Fee = 0.75 * (2 * £72,000) = £108,000

4. Entry Application Fee for a Modification to an existing Bilateral Agreement
300MW Generator in Zone A seeking to alter commissioning date
This would be a Modification Application
Fee = 0.75 * (£25,000 + (300 * 55)) = £31,125

5. Entry Application Fee for an embedded generator (BEGA/ BELLA)
300MW embedded generator requesting a BEGA in Zone A
Fee = 0.5 * (£25,000 + (300 * 55)) = £20,750

6. Entry Application Fee for a TEC Increase
400MW generator in Zone A wishes to increase TEC by 20MW to 420MW
Application Fee = £15,000 + (20 * 100) = £17,000

7. Entry Application Fee for a change to completion date
500MW generator in Zone B wishes to change their completion date by moving it back by 12 months
Application Fee = 0.75 * (£40,000 + (500 * 90)) = £63,750

8. Entry Application Fee for a Decrease TEC
600MW generator in Zone C wishes to decrease TEC by 100MW to 500MW
Application Fee = 0.75 * (£55,000 + (100 * 125)) = £50,625

Table 3.6: Bilateral Agreement Types

Bilateral Agreement Type	Description
Bilateral Connection Agreement	In respect of Connection Sites of Users.
Bilateral Embedded Licence Exemptable 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.

Table 3.7: Generator Types

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

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
SO	System Operator. This being NGET
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 4

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 4.1

	£/day		
	National Grid	**SPT**	**SHE T**
Section Manager Internal Solicitor	1030	1058	990
Principal Power System Engineer	819	809	833
Senior Power System Engineer Project Manager Account Manager Senior Wayleave Officer	664	675	695
Power System Design Engineer Draughtsman	525	568	554
Graduate Engineer	448	452	468
Administrative Support	355	357	366

Schedule 5

Non-Capital Components applicable for Maintenance and Transmission Running Costs in Connection Charges for 2018/19

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 will be calculated each year based on the forecast total site specific maintenance for GB divided by the total GAV of the transmission licensees GB connection assets, to arrive at a percentage of total GAV. For 2018/19 this will be 0.54%.

Part B: Transmission Running Costs

The Transmission Running Cost (TRC) factor is calculated at the beginning of each price control to reflect the appropriate amount of other Transmission Running Costs (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 2013/14 to 2020/21 this will be 1.47%.

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 1.47%:

Example:

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

Scottish Power Transmission Ltd	18.6%
Scottish Hydro Transmission Ltd	7.5%
National Grid	16.3%

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

Scottish Power Transmission Ltd	43.4
Scottish Hydro Transmission Ltd	33.1
National Grid	317.9

Total GB Connection GAV = £3.38bn
GB TRC Factor = (18.6% x £43.4m + 7.5% x £33.1m + 16.3% x £317.1m) / £3.38bn
GB TRC Factor = 1.84%
Net GB TRC Factor = Gross GB TRC Factor – Site Specific Maintenance Factor*

Net GB TRC Factor = 1.84% - 0.37% = 1.47%

* 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 2013/14 Site Specific Maintenance Factor of 0.37%.

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.

Appendix 1: Illustrative Connection Asset Charges

2018/19 First Year Connection Charges based on the RPI Method (6% 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 assumed to be 6% for RPI indexation
- The connection charges include maintenance costs at the 2018/19 rate of 0.54% of the GAV
- The connection charges include Transmission Running Costs at the 2018/19 rate of 1.47% 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, archeology, 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, auxilliary 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 Pilling, noise enclosure, access works, oil containment drainage.

Single/Double Busbar bay

Assumptions

- **Plant**: The bay cost estimate is based on NG 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 Cl3 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

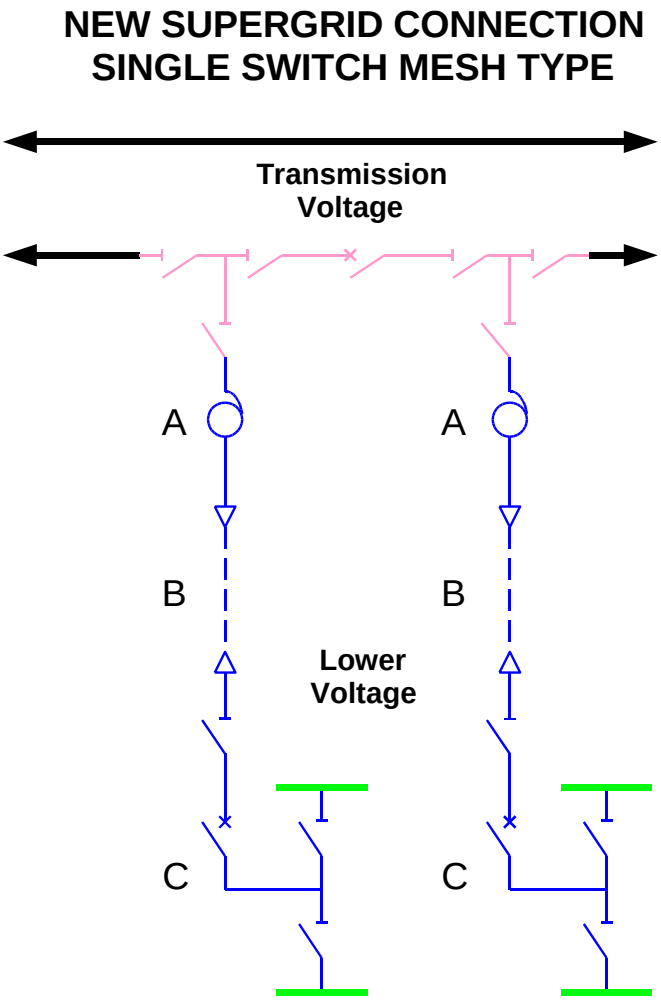
Exclusions

- **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



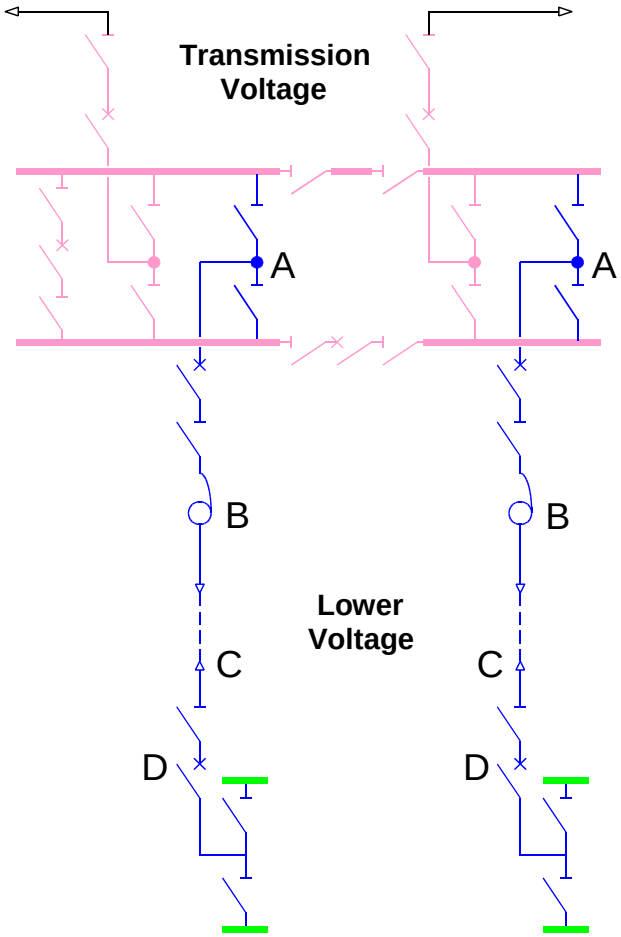
KEY:

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

SCHEDULE FOR NEW CONNECTION				
	275/132kV		400/132kV	
Ref	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



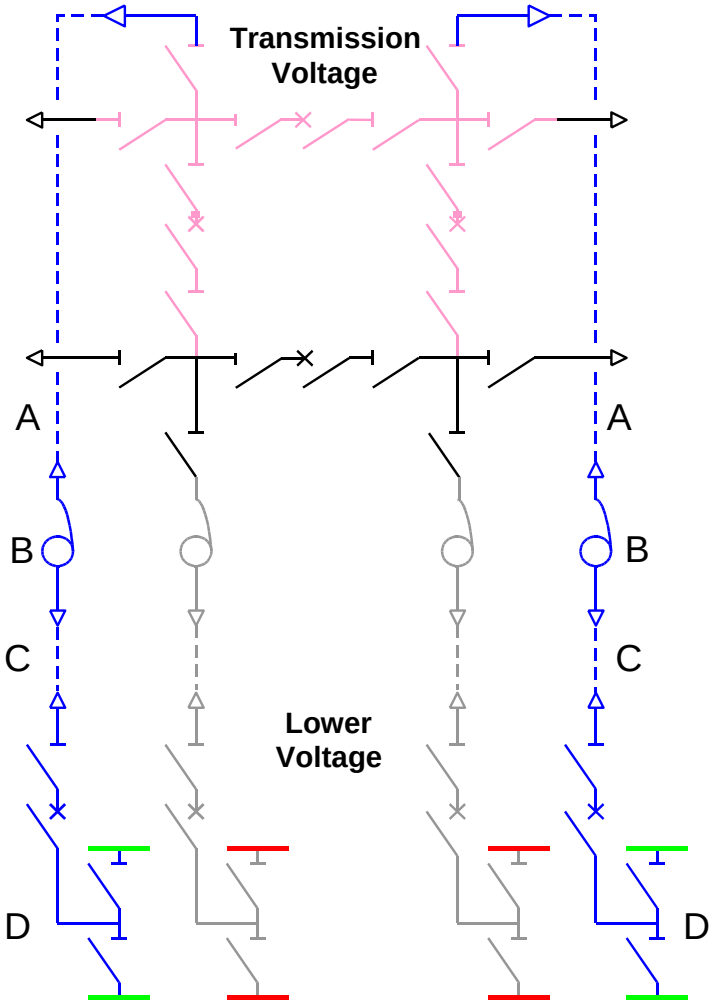
KEY:

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

SCHEDULE FOR NEW CONNECTION				
	275/132kV		**400/132kV**	
Ref	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				
	275/132kV		**400/132kV**	
Ref	Description	First Year Charges (£000s)	Description	First Year Charges (£000s)
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**

Appendix 2: 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 2018
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 0.54% of GAV
iv) the Transmission Running Cost component remains constant throughout the 40 years at 1.47% of GAV
v) the asset is depreciated over 40 years
vi) the rate of return charge remains constant at 6% for the 40 year life of the asset
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 2018.

Charge	Calculation	
Site Specific Maintenance Charge (0.54% of GAV)	3,000,000 x 0.54%	£16,200
Transmission Running Cost (1.47% of GAV)	3,000,000 x 1.47%	£44,100
Capital charge (40 year depreciation 2.5% of GAV)	3,000,000 x 2.5%	£75,000
Return on mid-year NAV (6%)	2,962,500 x 6%	£177,750
TOTAL		£313,050

The first year charge of £313,050 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	£313,050
2	£308,550
10	£272,550
40	£137,550

Based on this example, charges of this form would be payable until 31 March 2058.

Example 2

The previous example assumes that the asset is commissioned on 1 April 2018. If it is assumed that the asset is commissioned on 1 July 2018, the first year charge would equal 9/12th of the first year annual connection charge i.e. £234,787.50

This gives the following annual charges over time:

Year	Charge
1	£234,787.50 (connection charge for period July 2018 to March 2019)
2	£308,550
10	£272,550
40	£137,550

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, 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:

Annual Connection Charge$_n$ = SSF$_n$ (RPIGAV$_n$)+ TC$_n$ (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	CMP264/265 changes HH to Gross HH and introduces Embedded Export Tariff CMP268 introduces a new category of charging for conventional charging Changes to SO Incentives reflected in Schedule 2