

# Quarterly update of forecast TNUoS tariffs for 2014/15 v1.1

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This information paper provides an update to the Condition 5 forecast of Transmission Network Use of System (TNUoS) tariffs for 2014/15. Forecast changes within this document affect both generation and demand TNUoS tariffs. The forecasts tariffs for 2014/15 will be refined in December and finalised in January 2014.

**November 1<sup>st</sup> 2013**  
**November 4<sup>th</sup> 2013**

**Version 1**  
**Version 1.1 Minor update**  
**to WACM2 data to align**  
**with Status Quo**

#### Disclaimer

This report is published without prejudice and whilst every effort has been made to ensure the accuracy of the information, it is subject to several estimations and forecasts and may not bear relation to either the indicative or actual tariffs National Grid will publish at later dates.

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**Any Questions?**

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## 1 Executive Summary

National Grid sets Transmission Network Use of System (TNUoS) tariffs for generators and suppliers. The resulting charges reflect the forecasted use customers make of the network and the impact they will have on it. In order that customers can appropriately respond to transmission charges, National Grid produces a variety of tariff forecasts. This document updates our view of 2014/15 tariffs based on the current methodology (**Status Quo**) and provides forecast tariffs based on Ofgem's minded to position on CUSC Modification Proposal CMP213 (Workgroup Alternative CUSC Modification 2 (**WACM2**)). Two noticeable differences in terms of final charges payable by a Generator is that the shared year round tariff is multiplied by an individual generation Annual Load Factor (ALF) to establish a unit charge, and the system peak tariff is only levied on conventional generation and not intermittent. Although the manner in which demand tariffs are derived will change to some extent under CMP213, the manner in which the tariffs are applied to calculate demand charges will not change.

The Updated view of tariffs is based upon our latest view of all Transport and Tariff model inputs. This includes updates to: the contracted generation background since October 2012; peak demand forecasts from Distribution Network Owners; circuit information to reflect network reinforcements; the Expansion constant; and revenue forecasts (including a view of Offshore TO (OFTO) revenues). Most notably, since October 2012, the contracted generation for 2014/15 has fallen by roughly 8.8GW, and peak demand by roughly 4GWh. Please note that whilst the tariffs presented represent our latest view, these are still subject to change as some of the input data is not yet finalised.

### **Status Quo**

Under the Status Quo methodology, Generation tariffs in England & Wales are forecast to increase compared to 2013/14. This is mainly due to the increase in the generation residual, due to an increase in allowed revenues under the RIIO price control. This also affects demand tariffs. The increase in allowed revenues compared to 2013/14 reflects the increased investment being made to the GB Transmission System to aid the transition to a low carbon economy. RIIO ensures that any expenditure, feeding into allowed revenues, is made in an efficient manner.

In Scotland, Generation Zones 3 and 4 see above average tariff increases due to a combination of the changing generation and demand background which alter flows along circuits in the locality. Compared to the Initial View, Generation tariffs in Scotland have generally increased less than the increase in the generation residual due to a combination of a decrease in contracted Generation and partial completion of the Beaulieu Denny reinforcement work, which was not forecasted to happen until 15/16 in the Initial View. The Beaulieu Denny reinforcement, decreases generation tariffs in certain zones in Scotland, as the £/MW cost of the new circuits (400 & 275kV), which affect Generation tariffs in these zones, is less than the original circuits being replaced (132kV). Generation tariffs have increased over and above the Generation residual increase, in England & Wales as Peak demand has decreased more than contracted generation thus increasing Generation tariffs.

Forecast demand tariffs for 2014/15 are expected to increase by £4.52/kW on average compared to current tariffs mainly due to the increase in the demand residual as also observed with generation tariffs. As demand tariffs are set to collect 73% of allowed revenue the increase in the demand residual is larger than the generation residual. Demand tariffs increase above average in Scotland due to: a reduction in contracted generation in Scotland; an increase in

peak demand; and the effect of Beaulieu Denny reinforcement work, which has the opposite effect on demand tariffs as those observed with Generation tariffs in Scotland. Demand tariffs in London have increased less than the average increase due to the effect of rewiring work, whilst demand tariffs in Zone 6 have increased less than average increase due to the large decrease in forecasted peak demand in the locality.

Compared to the Initial View, demand tariffs have generally increased due to a rise in forecasted allowed revenues. In Scotland, these have risen above average due to peak demand increasing following an update to nodal demand data within the transport model received in July, whilst generation in this area has decreased due to TEC reductions and project delays, with this dual effect creating an above average increase. Demand tariffs in London have increased less than average due to the effect of Rewiring work shown in updated circuit information received in July, whilst demand tariffs in Zone 6 have increased less than average due to the large decrease in forecasted peak demand due to the actual effect of embedded generation in the area.

## **WACM2**

Many of the transport and tariff model inputs are the same for WACM2 as they are under the Status Quo. A notable difference is the inclusion of indicative generation specific ALFs. As ALFs will affect the final charge payable in respect of each Power Station, these will affect the value of the generation residual. Although the values provided within this document are indicative, and may change when draft ALFs are published later in November, we would welcome any comments generators have on these indicative values. Any changes to ALFs for individual Power Stations between now and final tariffs are not expected to significantly affect the overall residual element of the tariff.

For example the change in residual when using Generic ALFs calculated in July and specific ALFs in this update equals a £0.05k/W difference.

## 2 Introduction

### 2.1 Status Quo

National Grid sets Transmission Network Use of System (TNUoS) tariffs for onshore and offshore generators and suppliers across Great Britain. These tariffs serve two purposes: to provide information to customers about the transmission cost of connecting in different parts of the country and to recover the total allowed revenues of the onshore and offshore transmission owners.

To provide information about the cost of connecting in different parts of the network, National Grid determines a locational component of TNUoS tariffs using a model of power flows on the transmission system. This model considers the impact that changes in generation and demand have on power flows at times of peak demand. Where a change in demand or generation increases power flows, tariffs increase to reflect the need to invest. Similarly, if a change reduces flows on the network, tariffs reduce to reflect this. Information about generation and demand connected to the network and the electrical characteristics of the circuits that link these are used to calculate flows on the network.

The charging model includes information about the cost of investing in transmission circuits based on different types of generic construction (e.g. voltage and cable / overhead line) and the costs incurred in different TO regions. Onshore, these costs are based on 'standard' conditions and therefore do not necessarily reflect the actual cost of investment to connect a specific generator or demand site. Offshore, project specific costs are taken into account since these costs vary significantly from one project to another.

The locational components of TNUoS tariffs do not recover the full revenue that onshore and offshore transmission owners have been allowed in their price controls. Therefore, to ensure the correct total revenue recovery, separate non-locational "residual" tariff elements are included in the locational generation and demand tariffs. The residuals are set to ensure that 27% of total transmission revenue is recovered from generation customers and 73% from suppliers of both half-hourly (HH) and non half-hourly (NHH) demand. This ratio is fixed in the charging methodology.

The locational and residual tariff elements are combined into a zonal tariff, referred to as the wider zonal generation tariff or demand tariff, as appropriate. For generation customers, local tariffs are also calculated. These reflect the cost associated with the transmission substation they connect to and, where a generator is not connected to the main interconnected transmission system (MITS), the cost of local circuits that the generator uses to export onto the MITS. These charges are therefore locational and specific to individual generators.

### 2.2 Project TransmiT / CMP213

Following Ofgem's review of transmission charging arrangements to ensure these properly take into account the changing use of the transmission network and facilitate the move to a low carbon energy sector (Project TransmiT), National Grid was directed to raise a CUSC modification proposal to enhance the current locational charges (CMP213). The proposal covers:

- ❑ sharing transmission network capacity by different types of generator;
- ❑ taking account of HVDC circuits that run parallel to the existing AC system; and

- island connections that use sub-sea cable technology.

Since July 2012, the CMP213 Working Group has been developing and assessing the proposal. Final Working Group proposals and considerations were presented to the CUSC Panel in March 2013, and the Final CUSC Modification Report presented to Ofgem for consideration. In August, Ofgem published an Impact Assessment Consultation on the options presented by the industry as part of the development of CMP213.

Indicative tariffs for the various options under CMP213 can be found at the following link:

<http://www2.nationalgrid.com/UK/Industry-information/System-charges/Electricity-transmission/Methodology-forum/>

These Indicative tariffs are based on the same inputs to the model as per the July update.

Within Ofgem's Impact Assessment, Ofgem's minded to position is that WACM 2 best facilitates the CUSC objectives. As implementation could be at the start of or during 2014/15, we will provide two updated forecasts: one under the current methodology, and one based on WACM2.

### 2.3 Uncertainties

In addition to known possible changes to the charging methodology related to CMP213, other proposals to change the charging methodology could be raised by industry participants. Furthermore, changes to the generation connected to the onshore and offshore transmission system and the consequential impact on network investment and revenue TO requirements, will also impact the level of transmission charges.

### 2.4 Timetable for setting tariffs and future forecasts

National Grid are not planning to produce any further forecasts of 2014/15 tariffs. The timetable below lists planned publications relating to 2014/15 tariffs as well as forecasts of tariffs relating to future charging years.

<b>November 2013</b>	Publication of Draft ALFs for 2014/15 (for WACM2)
<b>24 December 2013</b>	Draft tariffs for 2014/15
<b>31 January 2014</b>	Final tariffs for 2014/15
<b>31 January 2014</b>	Forecast of tariffs for 2015/16
<b>31 March 2014</b>	Forecast of tariffs for 2016/17, 2017/18 and 2018/19

## 3 Updates to the Charging Model

In order to update the forecast generation and demand tariffs a number of changes must be made to the charging model. This update focuses on:

- ❑ changes to the generation and demand that affects the locational element of tariffs; and
- ❑ the resulting impact on the generation and demand charging bases
- ❑ updated revenues
- ❑ updated Expansion Constant
- ❑ updated network data

All major inputs to the model have now been updated since the Initial View with latest data. The model using WACM2 methodology also utilises this updated information.

### 3.1 Changes influencing the locational element of tariffs

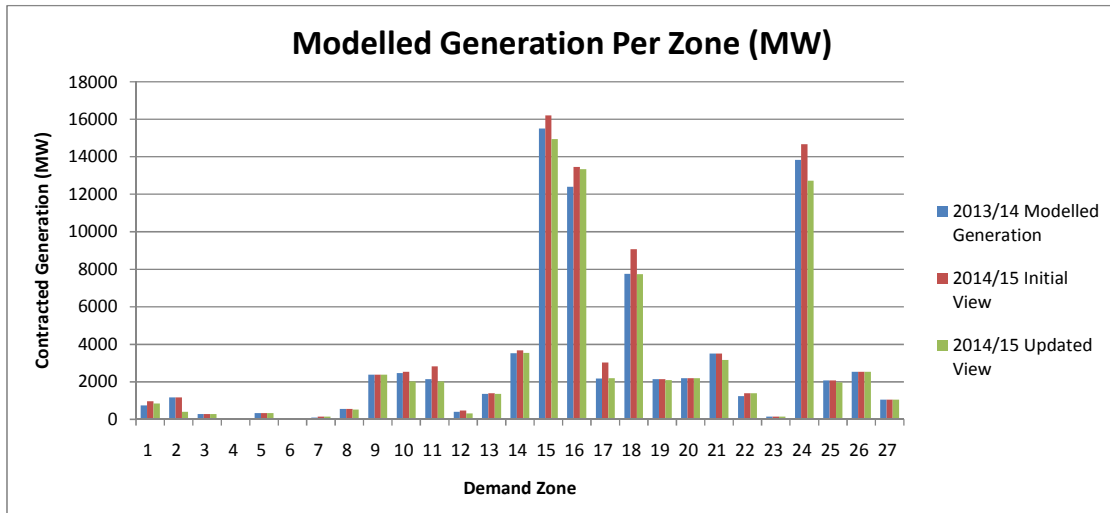
#### 3.1.1 Generation

Contracted generation for 2014/15 is taken from the TEC Register. Contracted generation as of 1<sup>st</sup> October was used to create the contracted generation background for both models.

The volume and location of contracted generation affects power flows on the modelled Transmission network. If generation increases in an area of the network without a subsequent increase in nearby demand, then this may increase generation tariffs in the locality with an opposite affect on demand tariffs.

For this quarterly update, the chargeable generation has been updated to reflect the changes made to contracted generation for 2014/15 between 31 October 2012 and 1 October 2013. In this period, 41 power stations have decreased capacity for 2014/15 either by reducing their TEC; delaying commissioning; or terminating. The chart on the following page shows the updated changes in generation that have been incorporated in the Updated view for 2014/15. Appendix A and B provides the same data in tabular form on a station and zonal basis. For reference, Zones 1 to 12 represent Scotland and Zones 13 to 27 represent England & Wales. Any changes in contracted generation between 1<sup>st</sup> October and 31<sup>st</sup> October 2013 may affect Final tariffs. Due to the limited time between 1<sup>st</sup> October and 31<sup>st</sup> October and the number of new stations currently contracted to connect in 2014/15 we are not expecting significant changes to the contracted background.





### 3.1.2 Demand

Information for peak demand at each Grid Supply Point (GSP) is sourced from the 2013 Ten Year Statement (TYS) as required by the charging methodology. The TYs is based on information received in 2012 from DNOs and directly connected demand sites such as steelworks and other heavy industry. The volume and location of demand determines the quantity of generation required to satisfy demand and subsequent power flows on the Transmission network. If demand reduces in an area of the network without a subsequent increase in nearby generation then this may increase generation tariffs in the locality with an opposite affect on local demand tariffs.

Compared to 2013/14 and the Initial view of 2014/15, forecast peak demand for 2014/15 has dropped significantly across the majority of DNO's in England and Wales, whereas forecast peak demand in Scotland remains fairly static or has slightly increased. The drop in peak demand reflects work done by the DNO's over the past year to analyse outturn demand and the real effect of embedded generation at peak within their networks. Although there is a step change in demand forecasts, these forecasts are consistent with actual peak demands and future forecasts being received this year, and are not a one off anomaly. Demand data is now fixed for 2014/15.

### 3.1.3 Transmission network

Circuit information is collated annually from the various Transmission Owners. The impedance of the various circuits determines the direction and volume of power flows along a circuit so that generation satisfies demand. The composition of the circuit in terms of whether the circuit is OHL or Cable and then the voltage of the circuit, determines the unit cost of the circuit. Changes to circuits can therefore affect both power flows and circuit costs, thus altering tariffs.

Updated information on the various Transmission networks has now been received and has been fed into the models. Circuit information within the models is not expected to change significantly between now and when draft and final tariffs are published, but data auditing is still ongoing.

Rather than listing all changes in the Transmission network from 2013/14 to 2014/15, if a circuit change affects tariffs then this is mentioned in sections 4 to 7.

The Initial view of 2014/15 used a forecasted view of the Transmission network for 2014/15 received in 2012, whereas the Updated view of 2014/15 uses circuit information received this year (2013).

## **3.2 Changes to ensure the correct revenue recovery**

### **3.2.1 Allowed Revenues**

TNUoS charges are set to recover revenues for all onshore and offshore TOs. The revenues of the onshore TOs are subject to price controls set by Ofgem; whilst offshore TO revenues are determined following a competitive tender.

The revenues of the onshore TOs are based on the RIIO (Revenue = Incentives + Innovation Outputs) price control arrangements. One of the features of the RIIO framework is that network companies will only receive funding for the outputs delivered. This means that revenues may increase or decrease depending on the volume of new connections driving changes in network investment.

Revenue adjustments for pass-through costs, incentivised performance and under/over recovery were previously lagged by one year. This required Transmission Owners to forecast the difference between actual and allowed revenues in the current year to set revenue the following year. These costs are now generally lagged by two years allowing the difference between actual and allowed revenues in the current year to be accurately calculated the following year and the adjustment applied in the year following that. In transitioning to this new timetable, revenue adjustments due to differences between actual and allowed revenue in 2013/14 will be applied in 2015/16 with no adjustment in 2014/15.

Regulatory Performance Data up to 2012/13 was submitted by Transmission Owners to Ofgem at the end of July 2013. Ofgem is expected to notify any resulting revenue adjustments in November 2013 to allow these to be incorporated into 2014/15 tariffs. Where possible the data submitted to Ofgem has been used to prepare these tariff forecasts but final tariffs may change if Ofgem's notification is not as expected.

The Transmission Owners have provided indicative revenue forecasts for 2014/15 which have been incorporated into this tariff forecast. Revenues have increased on 2013/14 by £345.6m. This is largely due to higher allowances for onshore transmission owners under their price controls (£266.5m), increased funding for Offshore Transmission (£40.8m), the Network Innovation Competition Fund (£32.5m) and inflation (3.4%). Revenues have increased on the Initial View by £68.9m. This is due to higher allowances for onshore transmission owners (£70.6m), driven by higher inflation forecasts and TIRG (Transmission Investment for Renewable Generation) activity, higher forecasts for Network Innovation Competition Funding (£19.0m) but lower forecasts for offshore transmission revenues (-£25.9m) due to later than anticipated asset transfers.

Revenues are inflated by a combination of actual RPI increases in 2012/13 and forecast RPI increases in 2013/14 and 2014/15. Actual RPI in 2012/13 rose by 3.1%. August 2013 Treasury forecasts for the subsequent years have reduced slightly leading to an inflationary increase of 3.4% between 2013/14 and 2014/15 compared to 3.6% advised in July. The price control includes a true-up for actual RPI increases with a two year lag.

Revenue forecasts for the existing Offshore Transmission Owners (OFTO) are relatively predictable because the majority of each OFTO's revenue is indexed. Existing OFTOs include Barrow, Gunfleet, Walney 1 & 2, Robin Rigg, Sheringham Shoal, Ormonde and more recently London Array.

Revenue forecasts for new Offshore Transmission Owners now assume Greater Gabbard and Lincs will be appointed during 2013/14 and Gwynt y Môr and Thanet will be appointed during 2014/15.

The Authority received £41.3m of bids for funding in 2014/15 under the Network Innovation Competition. The forecast allowance for the Network Innovation Competition has therefore been increased to £32.5m (£27m in 2009/10 prices) this being the maximum allowance that the Authority can award in 2014/15 although the Authority is not obliged to award the full amount. The July update assumed a lower figure on the assumption that funding would be provided over the life of the successful projects. However, further examination of the NIC Governance document indicates that funding is all awarded in the first year so the forecast has been increased. The successful bidders and associated revenue will be directed by the Authority before final tariffs are published.

Transmission Owner	2013/14 Revenue £m	2014/15 Revenue £m
National Grid	1,587.3	1,767.5
Scottish Power	271.3	320.8
Scottish Hydro Electricity	172.5	215.0
Offshore	165.5	206.3
Network Innovation	-	32.5
Total	2,196.5	2,542.1

	2013/14 Revenue £m	2014/15 Revenue £m
Pre-vesting connections	43.3	44.1
TNUoS	2,153.2	2,498.0
Total	2,196.5	2,542.1

### 3.2.2 Charging bases

#### *Generation*

The generation charging base has been updated to reflect the contracted position for 2014/15. This has reduced the charging base by approximately 7.7GW when compared to the Initial View and approximately 1.5GW compared to 2013/14.

The forecast generation base for 2014/15 has been determined by taking the contracted background for each year, adjusting this for interconnectors (unchanged from the Initial View of 2014/15), then reducing the amended figure by a factor of 0.97 which is an historic difference between contracted generation as of 31<sup>st</sup> October and actual contracted generation within the charging year. For draft and final tariffs we will review the likely contracted background for 2014/15 and compare this to the contracted background as of October 31<sup>st</sup> 2014/15 which is the freeze data for generation. An adjustment to the generation charging base is made if there

is a difference between the contracted background and what we calculate the actual contracted background to be (i.e. what will connect). This will affect the residual element of the tariff.

### *Demand*

The demand charging base and the split between HH and NHH demand between the various demand zones has not changed from when setting charges for 2013/14 and the Initial view of tariffs for 2014/15. For the avoidance of doubt the demand charging base is different to the forecast peak demand submitted by DNO's used in the Transport model. The demand charging base, i.e. our forecasts of actual chargeable demand, is not directly related to the change in DNO peak demand submissions.

National Grid will continue to review the demand charging bases for 2014/15 as further metering data for 2013/14 becomes available. Initial forecasts for 2013/14 indicate chargeable NHH consumption to be 5% lower than the previous year. This is partially due to warmer weather but also due to lower energy use. Demand is currently forecasted to remain fairly stable from 2013/14 to 2014/15 so to ensure correct revenue recovery the demand charging base will need to reflect this. Any reductions in the charging base increases tariffs as the same amount of revenue needs to be collected from less energy.

In the Initial View we noted that BSC amendment proposal P272<sup>1</sup>, would, if approved, increase the HH demand chargeable over the triads (and reduce annual NHH consumption). Given no decision has been made yet, and the BSC Panel's recommended implementation date is 1 April 2015/16, this has not been included in our forecast. If approved the split between HH and NHH would be changed within the model and therefore the affect on tariffs would be largely neutral.

It should be noted that the actual peak demand (and therefore the timing of the triads in any given year) will depend on a number of factors including the prevailing weather and the behaviour of commercial and industrial loads.

### **3.2.3 Expansion Constant**

The Expansion Constant was calculated at the start of the most recent price control. Each subsequent year it is inflated by RPI calculated as per the methodology stated within CUSC section 14. The Expansion Constant used within the model is 12.885306.

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<sup>1</sup> [BSC Amendment Proposal P272](#)

## 4 Forecast generation tariffs (Status Quo)

Based on the changes outlined in this report, the following section provides details of the forecast tariffs for the year 2014/15. Please note generation background changes flow through to future years and affect future tariffs.

### 4.1 Wider zonal generation tariffs

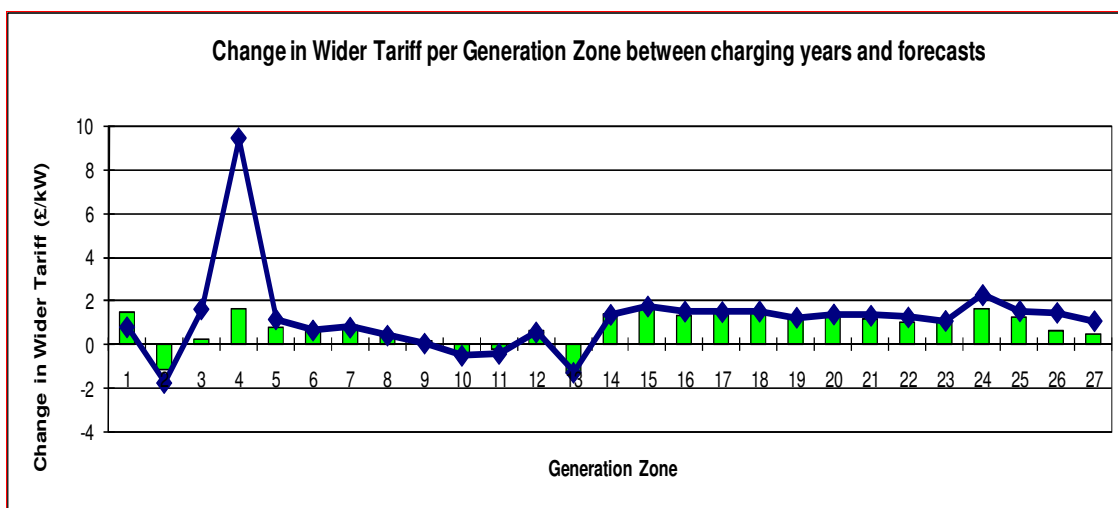
The following table shows the forecast wider generation TNUoS tariffs for 2014/15 and changes compared to the 2013/14 and 2014/15 Initial View. Tariffs are presented in outturn prices and expressed to two decimal places.

Generation Wider tariff (£/kW)

Zone Name		2013/14	Updated 2014/15	Change compared to...	
				2013/14	Initial View
1	North Scotland	25.42	26.93	1.51	0.76
2	East Aberdeenshire	22.8	21.65	-1.15	-1.80
3	Western Highlands	26.15	26.37	0.22	1.58
4	Skye and Lochalsh	30.25	31.89	1.64	9.41
5	Eastern Grampian and Tayside	21.55	22.36	0.81	1.11
6	Central Grampian	19.75	20.46	0.71	0.61
7	Argyll	18.52	19.42	0.90	0.73
8	The Trossachs	16.49	17.01	0.52	0.38
9	Stirlingshire and Fife	16.4	16.60	0.20	0.01
10	South West Scotland	15.53	15.12	-0.41	-0.55
11	Lothian and Borders	12.84	12.65	-0.19	-0.47
12	Solway and Cheviot	11.07	11.73	0.66	0.52
13	North East England	8.64	7.31	-1.33	-1.33
14	North Lancashire and The Lakes	7.48	8.90	1.42	1.32
15	South Lancashire, Yorkshire and Humbe	6.34	8.09	1.75	1.70
16	North Midlands and North Wales	5.18	6.50	1.32	1.48
17	South Lincolnshire and North Norfolk	3.49	5.09	1.60	1.45
18	Mid Wales and The Midlands	2.44	3.92	1.48	1.48
19	Anglesey and Snowdon	7.41	8.72	1.31	1.19
20	Pembrokeshire	5.57	6.88	1.31	1.34
21	South Wales	2.92	4.10	1.18	1.28
22	Cotswold	0.04	1.07	1.03	1.20
23	Central London	-4.44	-3.37	1.07	1.04
24	Essex and Kent	0.19	1.83	1.64	2.22
25	Oxfordshire, Surrey and Sussex	-1.69	-0.42	1.27	1.49
26	Somerset and Wessex	-3.05	-2.39	0.66	1.42
27	West Devon and Cornwall	-5.17	-4.70	0.47	1.04

Appendix F contains a geographic map of the generation zone boundaries that have been assumed to apply throughout the forecast period.

The following chart shows the generation tariff changes between 2013/14 (chart bars) and our Initial view of tariffs for 2014/15 (chart line).



#### 4.1.1 Changes between 2013/14 and Updated views for 2014/15

##### Summary explanation

Generation and demand changes have reduced North to South flows, which lowers tariffs in the majority of zones in the North (Zones 13 to 1). These reductions are partially offset by an increase in the residual element of £1.02 due to an increase in revenues from 2013/14 to 2014/15 and a reduction in the charging base.

Where tariffs increase in Scotland this is due to new generation within the zones or nearby, or the inflationary increase in the Expansion Constant which has not been offset by generation decreases.

- Whilst the above is a high-level summary of the changes, the following provides a more detailed explanation of the tariff changes: the generation **residual element**, which ensures the correct total revenue is recovered from generation, has increased by £1.02/kW to £5.83/kW. This has mainly been caused by the increase in revenue, as shown in the table below. For those zones with no specific changes due to circuits, demand or generation updates, this will cause tariffs to increase.

Item (£m, unless stated)		13/14	14/15	Δ
Revenue recoverable through TNUoS	<i>A</i>	2,153	2,498	345
Revenue to collect from generation	$B = 0.27 \times A$	581	675	94
Revenue from zonal tariffs	<i>C</i>	55	54	-1
Revenue from onshore local tariffs	<i>D</i>	34	33	-1
Revenue from offshore local tariffs	<i>E</i>	131	158	27
Revenue to recover from residual	$F = B - C - D - E$	361	430	69
Generation charging base (GW)	<i>G</i>	75.1	73.7	-1.2
<b>Residual (£/kW)</b>	$F / G$	<b>4.81</b>	<b>5.83</b>	<b>1.02</b>

- In **Zone 4** (in which there is one generator) and, to a lesser extent in **Zone 3**, the increase in the tariff has been caused by power flows reversing direction on a long radial spur. The increase in the current embedded generation forecast in this area has resulted in more circuits exporting thus increasing the tariff.

- ❑ A TEC reduction at Peterhead of 780MW reduces tariffs in most zones in Scotland, particularly **zone 2**.
- ❑ Demand has risen in demand **zone 13**, whilst generation has been scaled back due to the decrease in demand in GB overall. These adjustments in generation and demand reduce generation tariffs.

#### 4.1.2 Changes between Initial and Updated views for 2014/15

##### Summary explanation

Generation tariffs have generally risen due to an increase in the revenue to be collected from generators due to an increase in revenues and a reduction in generation paying charges. The exceptions to this rule are where generation reductions have affected tariffs, for example, at Peterhead (**Zone 2**) and in the south and south-west of Scotland (**Zones 10 to 11**). Demand forecasts at Peak have reduced significantly in the majority of GB. Where demand has remained the same or increased, i.e. demand zones 2 to 3, generation tariffs have reduced when compared to the Initial view as specifically seen in generation zone 13.

##### Detailed explanation

Whilst the above is a high-level summary of the changes, the following provides a more detailed explanation of the tariff changes between the Initial and Updated view of tariffs:

- ❑ The generation **residual element**, which ensures the correct total revenue is recovered from generation, has increased by £1.14/kW to £5.83/kW. This is due to the reduction in the generation charging base and an updated assessment of revenue from offshore local tariffs.

Item (£m, unless stated)		Initial View	Upd View 14/15	Δ
Revenue recoverable through TNUoS	<i>A</i>	2,433	2,498	-2
Revenue to collect from generation	$B = 0.27 \times A$	657	675	+18
Revenue from zonal tariffs	<i>C</i>	57	54	-3
Revenue from onshore local tariffs	<i>D</i>	35	33	-2
Revenue from offshore local tariffs	<i>E</i>	184	158	-26
Revenue to recover from residual	$F = B - C - D - E$	381	430	49
Generation charging base (GW)	<i>G</i>	81.3	73.7	-7.6
<b>Residual (£/kW)</b>	$F / G$	<b>4.69</b>	<b>5.83</b>	<b>1.14</b>

- ❑ TEC reductions at Peterhead of 780MW (not included in the Initial view), reduce tariffs in the majority of zones in Scotland, particularly **Zone 2**.
- ❑ The demand and generation background used in the Initial view resulted in generators in **Zones 3, 4** and partially **5** backing off flows along long circuits thus resulting in tariff decreases. Subsequent demand reductions due to increased embedded generation and changes in DNO forecasts without a concurrent drop in generation have reversed the decreases shown in the Initial view thus exaggerating the overall change in tariffs in these zones. In the Initial view this export did not occur due to a higher overall generation forecast and lower forecasted embedded generation.

- ❑ **Zone 10** sees a significant reduction in generation capacity (485MW in total) compared to the Initial view, which results in a decrease in the forecast tariff for this zone.
- ❑ **Zone 13** sees a decrease in generation tariffs due to an increase in forecast Peak demand and reduction in North South flows
- ❑ Transmission reconfiguration work scheduled for completion in and around the Central London area has been partially delayed when compared to circuit forecasts used in the Initial View. This causes increases in tariffs in **Zone 23** and **Zone 24** when compared to the Initial View.

#### 4.2 Onshore Local Circuit tariffs

Appendix D shows an updated forecast of onshore local circuit tariffs from 2013/14 to 2014/15. If you require further detail regarding the tariff please do not hesitate to contact us.

#### 4.3 Onshore Local Substation tariffs

The table below shows the forecast onshore local substation tariffs that will apply during 2014/15. These tariffs only apply to transmission connected generators. The tariffs are indexed by historical RPI for each year of the price control. For the purposes of the forecast the inflation rate of 3.6% was used to inflate 2013/14 tariffs.

Sum of TEC at Substation	Connection Type	Local Substation tariff (£/kW)		
		132kV	275kV	400kV
<1320 MW	No redundancy	0.18	0.10	0.07
<1320 MW	Redundancy	0.39	0.24	0.17
>=1320 MW	No redundancy	-	0.32	0.23
>=1320 MW	Redundancy	-	0.52	0.38

#### 4.4 Discount for Small Generation

The discount for small generation, which is equal to 25% of the combined generation and demand residuals, is forecast to increase from £7.55/kW to **£8.95/kW**.



## 5 Forecast demand tariffs (Status Quo)

Based on the changes outlined in this report, the following section provides details of the forecast demand tariffs for the year 2014/15. Please note that generation background changes flow through to future years and affect subsequent future tariffs.

### 5.1 Wider demand tariffs

The following tables and charts show the forecast half-hourly and non half-hourly demand TNUoS tariffs for 2014/15 as well as the differences compared to 2013/14 and the Initial View. Tariffs are presented in outturn prices expressed to 2 decimal places.

#### Half-hourly demand tariffs (£/kW)

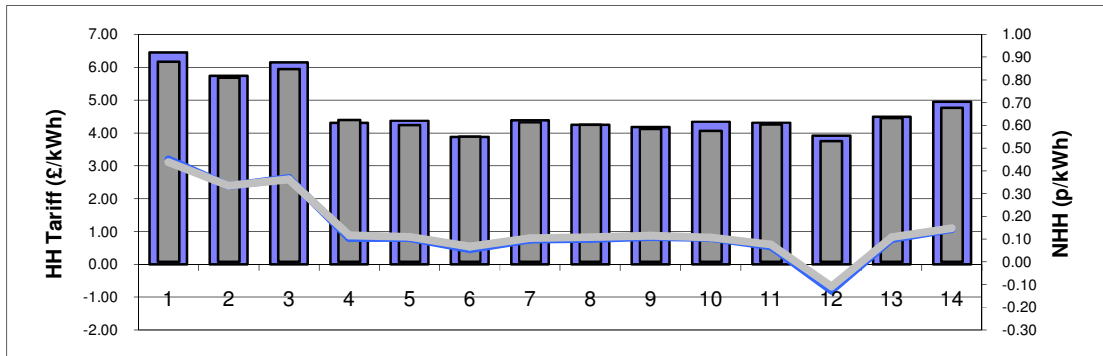
Zone Name	2013/14	Updated 2014/15	Change compared to...	
			2013/14	Initial View
1 Northern Scotland	11.05	17.50	6.45	3.20
2 Southern Scotland	16.79	22.52	5.73	2.38
3 Northern	22.35	28.50	6.15	2.62
4 North West	25.18	29.48	4.30	0.80
5 Yorkshire	25.49	29.86	4.37	0.80
6 N Wales & Mersey	25.63	29.51	3.88	0.47
7 East Midlands	28.21	32.60	4.39	0.75
8 Midlands	29.20	33.45	4.25	0.77
9 Eastern	29.89	34.07	4.18	0.83
10 South Wales	27.54	31.88	4.34	0.80
11 South East	32.83	37.14	4.31	0.55
12 London	34.08	38.00	3.92	-0.80
13 Southern	33.75	38.25	4.50	0.77
14 South Western	33.55	38.50	4.95	1.08

#### Non half-hourly demand tariffs (p/kWh)

Zone Name	2013/14	Updated 2014/15	Change compared to...	
			2013/14	Initial View
1 Northern Scotland	1.52	2.40	0.88	0.44
2 Southern Scotland	2.36	3.17	0.81	0.34
3 Northern	3.08	3.93	0.85	0.36
4 North West	3.65	4.27	0.62	0.12
5 Yorkshire	3.51	4.11	0.60	0.11
6 N Wales & Mersey	3.67	4.22	0.55	0.07
7 East Midlands	3.96	4.57	0.61	0.10
8 Midlands	4.15	4.75	0.60	0.11
9 Eastern	4.15	4.73	0.58	0.11
10 South Wales	3.69	4.27	0.58	0.11
11 South East	4.56	5.16	0.60	0.08
12 London	4.60	5.13	0.53	-0.11
13 Southern	4.74	5.37	0.63	0.11
14 South Western	4.60	5.28	0.68	0.15

The following chart shows the change in HH (blue bars) and NHH (grey bars) demand tariffs between 2013/14 and the Updated view of 2014/15. The change between the Initial View of tariffs for 2014/15 and this Updated view of tariffs is shown on the (blue line) for HH and (grey line) for NHH. Since it has been assumed that the proportion of HH and NHH demand in each

zone has remained constant across the forecast period, the trend in NHH tariffs mirrors that of HH tariffs.



### 5.1.1 Changes between 2013/14 and Updated view for 2014/15 (Blue & Grey bars)

#### Summary explanation

Demand tariffs are expected to increase in all zones and on average by £4.55/kW. This is because National Grid expects to recover around £345m more revenue through charges during 2014/15 compared to the prior year. Scotland sees an increase in forecast demand tariffs because there is less contracted generation in Scotland compared to 2013/14 and demand has remained static.

#### Detail explanation

A more detailed explanation of the main changes in demand tariffs follows:

- The **residual tariff** element of HH demand tariffs, which is the same in each zone and ensures that the correct total revenue recovery, has increased by £4.55/kW to £29.96/kW. This reflects the expected increase in the total allowed revenue, as shown in the following table.

Item (£m, unless stated)		13/14	14/15	Δ
Revenue recoverable through TNUoS	A	2,153	2498	345
Revenue to collect from demand	$B = 0.73 \times A$	1,572	1824	252
Revenue from zonal charges	C	149	146	-2
Revenue from residual	$D = B - C$	1,423	1678	254
Charging Base (GW)	E	56	56	0
<b>Residual (£/kW)</b>	$D / E$	<b>25.41</b>	<b>29.96</b>	<b>4.55</b>

- Reductions in generation whilst demand forecasts remain stable in Scotland and the North East cause increased tariffs in **Zones 1, 2 and 3**
- A drop in forecasted demand in **Zone 6** over and above the average drop across all zones sees a decrease in tariffs
- Inflationary pressure on the Expansion Constant further increases tariffs in demand **Zone 14**

### 5.1.2 Changes between Initial and Updated views for 2014/15 (Blue and Grey lines)

#### Summary explanation

Demand tariffs have risen due to increased allowed revenue. The exception to this is in London where planned circuit changes scheduled for 2014/15 have now been partially delayed. Where there have been changes in the generation background, which is most notable in Scotland, demand tariffs have increased more than previously expected.

#### Detailed explanation

A more detailed explanation of the main changes in demand tariffs follows:

- The **residual tariff** element of HH demand tariffs, which is the same in each zone and ensures that the correct total revenue recovery, has increased by £0.98/kW to £29.94/kW between forecasts.

Item (£m, unless stated)		Initial View	Update View	Δ
Revenue recoverable through TNUoS	<i>A</i>	2,433	2498	65
Revenue to collect from demand	$B = 0.73 \times A$	1,776	1824	48
Revenue from zonal charges	<i>C</i>	155	147	-8
Revenue from residual	$D = B - C$	1,621	1677	56
Charging Base (GW)	<i>E</i>	56	56	-
<b>Residual (£/kW)</b>	<i>D / E</i>	<b>28.96</b>	<b>29.94</b>	<b>0.98</b>

- A reduction in generation in Scotland coupled with static demand causes tariffs in **Zones 1, 2 and 3** to increase more than previously expected.
- Circuit Reconfiguration planned for 2014/15, now partially delayed to 2015/16 reverses flows in and around London causing reductions in demand tariffs.

## 6 Forecast generation tariffs (WACM 2)

Based on the changes outlined in this report, the following section provides details of the forecast tariffs for the year 2014/15 based on WACM2 methodology. Please note that in 2014/15 there are no planned HVDC or Island links.

### 6.1 Generation tariffs

The following table shows the forecast generation TNUoS tariffs for 2014/15, expressed to 2 decimal places. Tariffs are presented in outturn prices based on the changes to allowed revenue and investment costs outlined in Section 3. Please note that the tariffs levied on an individual Generator is dependant on whether the Generator is classed as Carbon or Low Carbon. Appendix C lists generation currently contracted for 2014/15 and their classification. In future years the overall tariff for a zone may remain the same but the year round shared and the year round non shared tariff elements change.

Generation tariffs (£/kW)

Generation Tariffs		System Peak	Shared Year Round	Not Shared Year Round	Residual	Final Zonal
Zone	Zone Name	Tariff (£/kW)	Tariff (£/kW)	Tariff (£/kW)	Tariff (£/kW)	Tariff (£/kW)
1	North Scotland	2.95	16.01	5.50	3.50	27.97
2	East Aberdeenshire	3.98	9.81	5.50	3.50	22.80
3	Western Highlands	2.56	16.39	5.50	3.50	27.95
4	Skye and Lochalsh	-1.36	16.39	7.19	3.50	25.71
5	Eastern Grampian and Tayside	2.22	12.81	5.07	3.50	23.60
6	Central Grampian	3.74	11.51	4.61	3.50	23.37
7	Argyll	2.83	8.92	6.20	3.50	21.45
8	The Trossachs	2.88	8.92	3.58	3.50	18.88
9	Stirlingshire and Fife	3.33	7.98	3.45	3.50	18.26
10	South West Scotlands	2.14	9.36	3.45	3.50	18.44
11	Lothian and Borders	2.56	9.36	-0.24	3.50	15.18
12	Solway and Cheviot	1.65	5.71	2.51	3.50	13.36
13	North East England	2.90	3.19	1.08	3.50	10.66
14	North Lancashire and The Lakes	1.46	3.19	1.76	3.50	9.90
15	South Lancashire, Yorkshire and Humber	3.66	1.24		3.50	8.40
16	North Midlands and North Wales	3.22	0.25		3.50	6.97
17	South Lincolnshire and North Norfolk	1.43	-0.20		3.50	4.73
18	Mid Wales and The Midlands	1.16	-0.23		3.50	4.43
19	Anglesey and Snowdon	4.71	1.31		3.50	9.52
20	Pembrokeshire	8.18	-3.58		3.50	8.10
21	South Wales & Gloucester	5.54	-3.60		3.50	5.44
22	Cotswold	2.62	1.60	-5.21	3.50	2.50
23	Central London	-3.26	1.60	-4.24	3.50	-2.41
24	Essex and Kent	-4.00	1.60		3.50	1.10
25	Oxfordshire, Surrey and Sussex	-1.35	-2.51		3.50	-0.36
26	Somerset and Wessex	-1.52	-3.53		3.50	-1.55
27	West Devon and Cornwall	-0.93	-5.62		3.50	-3.05

Appendix F contains a geographic map of the generation zone boundaries that have been assumed to apply throughout the forecast period.

### 6.2 Annual Load Factors

Under WACM2 the Year Round Shared element of the generators charge will be specific to each generator as it is adjusted by the specific Load Factor for that generator. Annual Load Factors specific to each generator are being published in a separate document during November. Annual Load Factors do not affect the locational elements of the charge but do affect the tariff payable by specific generators and the residual element of the tariff. However we do not envisage these significantly changing between now and Final tariffs as they are based on historic data. Specific Load Factors used within the model to set forecast tariffs can be found in Appendix G. Specific Load Factors are indicative at this stage but we do welcome queries ahead of publication of draft tariffs during November.

### 6.2.1 Explanation of tariffs

TNUoS tariffs for 2013/14 are set using the Status Quo methodology. Comparisons between 2013/14 TNUoS tariffs and tariffs forecasted using WACM2 cannot be undertaken due to the significant differences in tariff elements, generation background etc between methodologies. However we do recommend using the charging calculator<sup>2</sup>, which shows the forecasted charges payable in 2014/15 under both methodologies.

### 6.3 Onshore Local Circuit tariffs

Appendix D shows an updated forecast of onshore local circuit tariffs which will apply under WACM2 as well as those under Status Quo. Please note that Local Circuit tariffs may differ between the two methodologies as the generation backgrounds used to set locational MWKm's differ due to scaling so flows along Local Circuits may change.

### 6.4 Onshore Local Substation tariffs

Onshore Local Substation Tariffs remain the same under both methodologies. To avoid checking back earlier in the document the table in section 4.3 is duplicated below.

Sum of TEC at Substation	Connection Type	Local Substation tariff (£/kW)		
		132kV	275kV	400kV
<1320 MW	No redundancy	0.18	0.10	0.07
<1320 MW	Redundancy	0.39	0.24	0.17
>=1320 MW	No redundancy	-	0.32	0.23
>=1320 MW	Redundancy	-	0.52	0.38

### 6.5 Discount for Small Generation

The discount for small generation may differ between the two methodologies as the residual elements used to calculate the discount alters between Methodologies. The discount for small generation, which is equal to 25% of the combined generation and demand residuals under WACM2, is forecast to be **£9.08/kW**.

The discount for small generation will be deducted from the Effective tariff applicable to a generator and is not adjusted by specific load factors.

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<sup>2</sup> <http://www.nationalgrid.com/UK/Industry-information/System-charges/Electricity-transmission/Transmission-Network-Use-of-System-Charges/Tools-and-Data/>

## 7 Forecast demand tariffs (WACM 2)

Forecast demand tariffs have been calculated using the same input data as used in the Status Quo. Differences in tariffs between the two models arise due to how generation is scaled in the Peak and Year round scenarios, which creates the locational element to the demand tariff.

### 7.1 Wider demand tariffs

The following table shows the forecast half-hourly and non half-hourly demand TNUoS tariffs for 2014/15. These have not been compared to the previous year due to the change in methodologies used to calculate the tariffs

<b>Demand</b>			
<b>Zone No.</b>	<b>Zone Name.</b>	<b>HH Zonal Tariff (£/kW)</b>	<b>NHH Zonal Tariff (p/kWh)</b>
1	Northern Scotland	17.22	2.36
2	Southern Scotland	20.93	2.94
3	Northern	26.58	3.66
4	North West	29.28	4.25
5	Yorkshire	29.93	4.12
6	N Wales & Mersey	29.28	4.19
7	East Midlands	32.66	4.58
8	Midlands	33.18	4.71
9	Eastern	35.00	4.86
10	South Wales	31.09	4.16
11	South East	37.84	5.26
12	London	39.94	5.39
13	Southern	38.01	5.34
14	South Western	37.56	5.15

Tariffs include small gen tariff of: 0.22 0.03

## 8 Sensitivities & Uncertainties

Where a new generator causes a change in tariffs this has been noted in Sections 4 to 7. However, more often than not, it is a combination of various schemes that is the cause of tariff changes. The charging model used to calculate TNUoS tariffs is publically available, which allows customers to consider the scenarios that they consider most likely. Please see Section 9.2 to obtain more information on how to obtain the model and the support available for its use.

The major uncertainty regarding tariffs for 2014/15 revolves around which methodology will be used to calculate tariffs. Generation and demand tariffs vary between methodologies albeit the differences are far more pronounced in generation. (We recommend that customers, both demand and generation keep up to date with CMP213 Project Transmit and its progress).

In terms of inputs to the model and locational charges we do not envisage significant changes as many elements are based on data sources which are now not subject to change i.e. Circuit and demand data. However until the generation background and revenues are fixed between now and Final charges being set, small changes may still occur.

Demand charging bases used to calculate HH and NHH tariffs are subject to further change as forecasts take account of actual customer behaviour (metered data). For example if we see significant reductions in HH demand over a potential Triad Half Hour this winter compared to forecasts, this may alter our view of what HH demand to use for 2014/15 if we feel that revenue under or over recovery using current demand charging bases is likely. Therefore customer behaviour over the early part of the up and coming winter may affect forecasts and demand charging bases for 2014/15. Different charging bases and their affect on charges are illustrated later on in this section.

### 8.1 Changes to transmission revenue requirements

The following table provides details of wider 2014/15 TNUoS tariffs in a high and low revenue scenario. These scenarios show an example of how different assumptions about the onshore TO allowed revenues; the allowed revenues of OFTOs yet to be appointed; and the impact of inflation affect tariffs. For more details of how these scenarios have been prepared, see Appendix E.

#### Status Quo

Change to...	Scenario	
	Low Case	High Case
Allowed Revenue	-£30m	+£15m
Generation tariffs	-0.01 (£/kW)	+0.03 (£/kW)
HH demand tariffs	-0.39 (£/kW)	+0.20 (£/kW)
NHH demand tariffs	-0.05 (p/kWh)	+0.03 (p/kWh)

## WACM2

Change to...	Scenario	
	Low Case	High Case
Allowed Revenue	-£30m	+£15m
Generation tariffs	-0.01 (£/kW)	+0.03 (£/kW)
HH demand tariffs	-0.39 (£/kW)	+0.20 (£/kW)
NHH demand tariffs	-0.05 (p/kWh)	+0.03 (p/kWh)

### 8.2 Changes to the charging base

The following table shows the impact of an increase / decrease of 500MW on the demand charging base. For simplicity this has been spread in proportion to the existing demand in each zone. The change shown below is an average change for NHH

#### Status Quo

Tariff	Change to tariffs
HH demand	± £0.29/kW
NHH demand	± 0.02 p/kWh

## WACM2

Tariff	Change to tariffs
HH demand	± £0.29/kW
NHH demand	± 0.02 p/kWh

The charging bases will be reviewed before finalising tariffs for 2014/15. This review will examine Peak conditions and outturn HH demand at Peak by looking at historic outturn demand and future forecasts. This is necessary to ensure correct revenue recovery.

In terms of demand charging bases, the charging bases are more likely to decrease than increase, thus increasing demand tariffs.



## 9 Tools and Supporting Information

### 9.1 Discussing tariff changes

National Grid is keen to ensure that customers understand the current charging arrangements and the reasons why charges change from year to year. Therefore, we expect to attend a future charging methodology forum to discuss this forecast.

### 9.2 Publication of charging models

Customers can receive a copy of National Grid's charging model, which will allow them to better understand how their tariffs have been calculated and conduct sensitivity analysis concerning alternative developments of generation and demand to be undertaken.

If you would like a copy of the model to be emailed to you, together with a user guide, please contact National Grid. Please note that, while the model is available free of charge, it is provided under licence to restrict, among other things, its distribution and commercial use.

### 9.3 Tools and Useful Guides

National Grid has prepared a number of tools and guidance notes to help customers understand the charging arrangements. These include:

- ❑ A guide to offshore local TNUoS charges.
- ❑ A tool to calculate generation TNUoS charges.
- ❑ A guide to assist new suppliers understand monthly TNUoS charges and the annual reconciliations.

## 10 Comments & Feedback

### Comments & Feedback

As part of our commitment to customers National Grid welcomes comments and feedback on the information contained in this statement. In particular, to ensure that information is provided and presented in a way that is of most use to customers, we would welcome specific feedback on:

- The level of numeric detail provided to explain tariff changes;
- The quality of the explanation given to describe and explain tariff changes;
- Information that is not useful and could be omitted; and
- Information that is missing that could be added.

These should be sent to:

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## 11 Appendices

- Appendix A** Generation changes for 2014/15
- Appendix B** Zonal generation and demand changes from 2014/15
- Appendix C** Generation Classification for WACM2
- Appendix D** Onshore local circuit tariff changes from 2014/15
- Appendix E** Revenue scenarios
- Appendix F** Generation Zone Map
- Appendix G** Specific ALFs

**Appendix A: Contracted generation and changes for 2014/15**

<b>TEC REGISTER NAME</b>	<b>Zone</b>	<b>13/14 Modelled generation</b>	<b>14/15 Modelled generation C5</b>	<b>14/15 Modelled generation Nov Update</b>	<b>Difference Update to 13/14</b>	<b>Difference Update to 14/15 C5</b>
Aberthaw	21	1620	1620	1620	0	0
AChruach Wind Farm	7	0	49.9	49.9	49.9	0
Afton Wind Farm	10	68	68	0	-68	-68
Aigas	1	20	20	20	0	0
Aikengall II Windfarm	11	0	108	0	0	-108
An Suidhe Wind Farm	7	20.7	20.7	20.7	0	0
Andershaw	11	45	45	0	-45	-45
Arecleoch	10	120	120	120	0	0
Aultmore Wind Farm	1	0	60	0	0	-60
Baglan Bay	21	552	552	552	0	0
Barking	24	950	950	950	0	0
Barrow Offshore Wind Farm	14	90	90	90	0	0
Barry Power Station	21	142	142	142	0	0
Black Law	11	121	121	118	-3	-3
Blackcraig Wind Farm	10	71.3	71.3	0	-71.3	-71.3
Blacklaw Extension	11	69	69	0	-69	-69
Brigg	16	260	260	155	-105	-105
Enfield	24	408	408	408	0	0
Bristol	22	0	165	165	165	0
Britned	24	1200	1200	1200	0	0
Brockloch Rig Wind Farm	10	0	75	0	0	-75
Carraig Gheal Wind Farm	7	46	46	46	0	0
Carrington Power Station	16	0	910	910	910	0
Clunie	5	61.2	61.2	61.2	0	0

**Disclaimer**

This report is published without prejudice and whilst every effort has been made to ensure the accuracy of the information, it is subject to several estimations and forecasts and may not bear relation to either the indicative or actual tariffs National Grid will publish at later dates.

TEC REGISTER NAME	Zone	13/14 Modelled generation	14/15 Modelled generation C5	14/15 Modelled generation Nov Update	Difference Update to 13/14	Difference Update to 14/15 C5
Clyde (North)	11	220.8	220.8	220.8	0	0
Clyde (South)	11	128.8	128.8	128.8	0	0
Connahs Quay	16	1380	1380	1380	0	0
Corby	18	401	401	401	0	0
Corriegarth	1	0	49.9	0	0	-49.9
Coryton	24	800	800	800	0	0
Cottam	16	2000	2000	2000	0	0
CDCL	16	395	395	395	0	0
Cowes	26	145	145	145	0	0
Cruachan	8	440	440	440	0	0
Crystal Rig 2	11	138	200	138	0	-62
Culligran	1	19.1	19.1	19.1	0	0
Damhead Creek	24	805	805	805	0	0
Deanie	1	38	38	38	0	0
Deeside	16	515	515	515	0	0
Dersalloch	10	69	69	69	0	0
Didcot B	25	1550	1550	1550	0	0
Didcot A GTs	25	100	100	0	-100	-100
Dinorwig	19	1644	1644	1644	0	0
Drakelow D	18	0	1320	0	0	-1320
Drax	15	3906	3906	3906	0	0
Dungeness B	24	1081	1081	1081	0	0
Dunlaw Extension	11	29.75	29.75	29.75	0	0
East West Interconnector	16	500	500	500	0	0
Edinbane Wind, Skye	4	41.4	41.4	41.4	0	0
Eggborough	15	1940	1940	1940	0	0
Erica Wind Farm	1	0	21.6	0	0	-21.6

<b>TEC REGISTER NAME</b>	<b>Zone</b>	<b>13/14 Modelled generation</b>	<b>14/15 Modelled generation C5</b>	<b>14/15 Modelled generation Nov Update</b>	<b>Difference Update to 13/14</b>	<b>Difference Update to 14/15 C5</b>
Errochty	5	75	75	75	0	0
Ewe Hill	12	18	66	0	-18	-66
Fallago	11	144	144	144	0	0
Farr Wind Farm, Tomatin	1	92	92	92	0	0
Fasnakyle G1 & G3	3	46	46	46	0	0
Fawley	26	75	75	75	0	0
Fawley CHP	26	158	158	158	0	0
Ferrybridge	15	1986	1986	1014	-972	-972
Ffestiniog	16	360	360	360	0	0
Fiddlers Ferry	15	1987	1987	1987	0	0
Finlarig	6	16.5	16.5	16.5	0	0
Foyers	1	300	300	300	0	0
IFA Interconnector	24	1988	1988	2000	12	12
Glendoe	3	100	100	99.9	-0.1	-0.1
Glenmoriston	3	37	37	37	0	0
Gordonbush Wind	1	70	70	70	0	0
Grain	24	2645	2645	1524	-1121	-1121
BP Grangemouth	9	120	120	120	0	0
Great Yarmouth	18	420	420	405	-15	-15
Greater Gabbard Offshore Wind Farm	18	500	500	500	0	0
Griffin Wind Farm	5	188.6	188.6	188.6	0	0
Gunfleet Sands Offshore Wind Farm	18	99.9	99.9	99.9	0	0
Gunfleet Sands II Offshore Wind Farm	18	64	64	64	0	0
Gwynt Y Mor Offshore Wind Farm	16	432	574	565	133	-9
Hadyard Hill	10	117	117	117	0	0
Harestanes	12	142	163.3	126	-16	-37.3
Hartlepool	13	1207	1207	1207	0	0

<b>TEC REGISTER NAME</b>	<b>Zone</b>	<b>13/14 Modelled generation</b>	<b>14/15 Modelled generation C5</b>	<b>14/15 Modelled generation Nov Update</b>	<b>Difference Update to 13/14</b>	<b>Difference Update to 14/15 C5</b>
Heysham Power Station	14	2406	2406	2406	0	0
Hinkley Point B	26	1261	1261	1261	0	0
Hornsea Offshore Wind Farm	15	0	500	500	500	0
Humber Gateway Offshore Wind Farm	15	220	220	220	0	0
Hunterston	10	1074	1074	1074	0	0
Immingham	15	1218	1218	1218	0	0
Immingham Renewable Power Station	15	290	290	0	-290	-290
Indian Queens	27	140	140	140	0	0
Invergarry	3	20	20	20	0	0
Ironbridge	18	964	964	964	0	0
Keadby	16	735	735	735	0	0
Strath Brora Wind, Brora	1	67	67	67	0	0
Killingholme 2	15	665	665	665	0	0
Killingholme	15	900	900	900	0	0
Kilmorack	1	20	20	20	0	0
Langage	27	905	905	905	0	0
Learney Wind Generating Station	5	0	9.2	0	0	-9.2
Lincs Offshore Wind Farm	17	250	250	250	0	0
Little Barford	18	740	740	740	0	0
Littlebrook	24	800	800	800	0	0
Lochay	6	47	47	47	0	0
Lochluichart	1	51	51	69	18	18
London Array Stages	24	630	630	630	0	0
Longannet	9	2260	2260	2260	0	0
Luichart	1	34	34	34	0	0
Marchwood	26	900	900	900	0	0
Margree	10	42.5	42.5	0	-42.5	-42.5

<b>TEC REGISTER NAME</b>	<b>Zone</b>	<b>13/14 Modelled generation</b>	<b>14/15 Modelled generation C5</b>	<b>14/15 Modelled generation Nov Update</b>	<b>Difference Update to 13/14</b>	<b>Difference Update to 14/15 C5</b>
Mark Hill Wind Farm	10	56	56	56	0	0
Medway Power Station	24	700	700	700	0	0
Millennium Wind	3	65	65	65	0	0
Mossford	1	18.66	18.66	18.66	0	0
Auchencrosh (Interconnector CCT)	10	80	80	80	0	0
Nant	7	15	15	15	0	0
Neart Na Gaoithe Offshore Wind Farm	11	0	450	0	0	-450
Neilston	10	80	80	0	-80	-80
Newfield Wind Farm	12	60	60	0	-60	-60
Ormonde Offshore Wind Farm	14	150	150	150	0	0
Orrin	1	18	18	18	0	0
Pembroke Power Station	20	2199	2199	2199	0	0
Pencloe	10	63	63	0	-63	-63
Peterborough	17	230	230	245	15	15
Peterhead	2	1180	1180	400	-780	-780
Quoich	3	18	18	18	0	0
Ratcliffe on Soar	18	2021	2021	2021	0	0
Robin Rigg East	12	92	92	92	0	0
Robin Rigg West	12	92	92	92	0	0
Rocksavage	16	810	810	810	0	0
Roosecote	14	152	152	0	-152	-152
Rowantree Wind Farm	11	0	67	0	0	-67
Rugeley	18	1018	1018	1018	0	0
Rye House	24	715	715	715	0	0
Saltend	15	1100	1100	1100	0	0
Seabank	22	1234	1234	1234	0	0
Sellafield	14	155	155	155	0	0



<b>TEC REGISTER NAME</b>	<b>Zone</b>	<b>13/14 Modelled generation</b>	<b>14/15 Modelled generation C5</b>	<b>14/15 Modelled generation Nov Update</b>	<b>Difference Update to 13/14</b>	<b>Difference Update to 14/15 C5</b>
Severn Power	21	850	850	850	0	0
Sheringham Shoal Offshore Windfarm	18	315	315	315	0	0
Shoreham	25	420	420	420	0	0
Sizewell B	18	1212	1212	1212	0	0
Sloy G2 and G3	8	80	80	80	0	0
South Humberbank	15	1285	1285	1285	0	0
Spalding	17	880	880	880	0	0
Spalding Energy Expansion	17	0	840	0	0	-840
Stacain Wind Farm	8	42.5	42.5	0	-42.5	-42.5
Staythorpe C	16	1728	1728	1728	0	0
Strathy North & South Wind	1	0	76	76	76	0
Sutton Bridge	17	819	819	819	0	0
Taylors Lane	23	144	144	144	0	0
Teesside	13	45	45	0	-45	-45
Thames Haven Power Station	24	0	840	0	0	-840
Thanet Offshore Windfarm	24	300	300	300	0	0
Tilbury B	24	810	810	810	0	0
Toddleburn Wind Farm	11	27.6	27.6	27.6	0	0
Torness	11	1215	1215	1215	0	0
Ulzieside	10	30	30	0	-30	-30
Uskmouth	21	345	345	0	-345	-345
Walney I Offshore Wind Farm	14	182	182	182	0	0
Walney II Offshore Wind Farm	14	182	182	182	0	0
West Burton A	16	1987	1987	1987	0	0
West Burton B	16	1305	1305	1305	0	0
West of Duddon Sands Offshore Wind Farm	14	204	374	382	178	8
Westermost Rough	15	0	205	205	205	0

<b>TEC REGISTER NAME</b>	<b>Zone</b>	<b>13/14 Modelled generation</b>	<b>14/15 Modelled generation C5</b>	<b>14/15 Modelled generation Nov Update</b>	<b>Difference Update to 13/14</b>	<b>Difference Update to 14/15 C5</b>
<b>Whitelee</b>	10	322	322	305	-17	-17
<b>Whitelee Extension</b>	10	238	238	206	-32	-32
<b>Whiteside Hill</b>	10	27	27	0	-27	-27
<b>Wilton</b>	13	99	141	141	42	0
<b>Wylfa</b>	19	490	490	440	-50	-50
		<b><u>82084.31</u></b>	<b><u>88317.71</u></b>	<b><u>79730.51</u></b>	<b><u>-2353.8</u></b>	<b><u>-8587.2</u></b>

## Appendix B: Zonal generation and demand information

### Generation changes (MW)

Zone	Zone Name	Modelled Generation 13/14	Modelled Generation 14/15 Initial View	Modelled Generation 14/15 Updated	Difference between 13/14 and Updated 14/15	Difference between 14/15 Initial View and Updated 14/15
1	North Scotland	748	957	843	96	-113
2	East Aberdeenshire	1180	1180	400	-780	-780
3	Western Highlands	286	286	286	0	0
4	Skye and Lochalsh	41	41	41	0	0
5	Eastern Grampian and Tayside	325	334	325	0	-9
6	Central Grampian	64	64	64	0	0
7	Argyll	82	132	132	50	0
8	The Trossachs	563	563	520	-43	-43
9	Stirlingshire and Fife	2380	2380	2380	0	0
10	South West Scotlands	2458	2533	2027	-431	-506
11	Lothian and Borders	2139	2826	2022	-117	-804
12	Solway and Cheviot	404	473	310	-94	-163
13	North East England	1351	1393	1348	-3	-45
14	North Lancashire and The Lakes	3521	3691	3547	26	-144
15	South Lancashire, Yorkshire and Humber	15497	16202	14940	-557	-1262
16	North Midlands and North Wales	12407	13459	13345	938	-114
17	South Lincolnshire and North Norfolk	2179	3019	2194	15	-825
18	Mid Wales and The Midlands	7755	9075	7740	-15	-1335
19	Anglesey and Snowdon	2134	2134	2084	-50	-50
20	Pembrokeshire	2199	2199	2199	0	0
21	South Wales & Gloucester	3509	3509	3164	-345	-345
22	Cotswold	1234	1399	1399	165	0
23	Central London	144	144	144	0	0
24	Essex and Kent	13832	14672	12723	-1109	-1949
25	Oxfordshire, Surrey and Sussex	2070	2070	1970	-100	-100
26	Somerset and Wessex	2539	2539	2539	0	0
27	West Devon and Cornwall	1045	1045	1045	0	0
<b>Totals and Differences</b>		<b>82084</b>	<b>88318</b>	<b>79731</b>	<b>-2354</b>	<b>-8587</b>

### Demand changes (MW)

Zone	Zone Name	13/14	14/15	14/15 Update	Diff	Diff	%	%
1	Northern Scotland	1,247	1,259	876	12	-383	1%	-30%
2	Southern Scotland	3,921	3,907	3,756	-14	-151	0%	-4%
3	Northern	2,676	2,863	2,939	187	76	7%	3%
4	North West	4,242	4,417	4,011	175	-406	4%	-9%
5	Yorkshire	5,213	5,248	4,787	35	-461	1%	-9%
6	N Wales & Mersey	3,553	3,503	2,546	-50	-957	-1%	-27%
7	East Midlands	5,699	5,755	5,188	56	-567	1%	-10%
8	Midlands	5,144	5,194	4,808	50	-386	1%	-7%
9	Eastern	6,925	7,137	6,680	212	-457	3%	-6%
10	South Wales	2,169	2,188	2,110	19	-78	1%	-4%
11	South East	4,188	4,293	3,883	105	-410	3%	-10%
12	London	6,053	6,259	5,944	206	-315	3%	-5%
13	Southern	6,387	6,447	6,236	60	-211	1%	-3%
14	South Western	2,801	2,829	2,810	28	-19	1%	-1%

#### Disclaimer

This report is published without prejudice and whilst every effort has been made to ensure the accuracy of the information, it is subject to several estimations and forecasts and may not bear relation to either the indicative or actual tariffs National Grid will publish at later dates.

## Appendix C Generation Classification for WACM2

STATION NAME FROM TEC REGISTER	FUEL TYPE	CONVENTIONAL / INTERMITTENT
<a href="#">Aberthaw</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Achruach wind farm</a>	Intermittent	INTERMITTENT
<a href="#">Aigas</a>	Hydro	CONVENTIONAL
<a href="#">An Suidhe Wind Farm</a>	Intermittent	INTERMITTENT
<a href="#">Arecleoch</a>	Intermittent	INTERMITTENT
<a href="#">Baglan Bay</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Barking</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Barrow Offshore Wind Farm</a>	Intermittent	INTERMITTENT
<a href="#">Barry Power Station</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Black Law</a>	Intermittent	INTERMITTENT
<a href="#">BP Grangemouth</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Brigg</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Bristol</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Carrraig Gheal Wind Farm</a>	Intermittent	INTERMITTENT
<a href="#">Carrington Power Station</a>	Other (Conventional)	CONVENTIONAL
<a href="#">CDCL</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Clunie</a>	Hydro	CONVENTIONAL
<a href="#">Clyde (North)</a>	Intermittent	INTERMITTENT
<a href="#">Clyde (South)</a>	Intermittent	INTERMITTENT
<a href="#">Connahs Quay</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Corby</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Coryton</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Cottam</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Cowes</a>	Peaking	CONVENTIONAL
<a href="#">Cruachan</a>	Pumped Storage	CONVENTIONAL
<a href="#">Crystal Rig 2</a>	Intermittent	INTERMITTENT
<a href="#">Culligran</a>	Hydro	CONVENTIONAL
<a href="#">Damhead Creek</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Deanie</a>	Hydro	CONVENTIONAL
<a href="#">Deeside</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Dersalloch</a>	Intermittent	INTERMITTENT
<a href="#">Didcot B</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Dinorwig</a>	Pumped Storage	CONVENTIONAL
<a href="#">Drakelow D</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Drax</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Dungeness B</a>	Nuclear & CCS	CONVENTIONAL
<a href="#">Dunlaw Extension</a>	Intermittent	INTERMITTENT
<a href="#">Edinbane Wind</a>	Intermittent	INTERMITTENT
<a href="#">Eggborough</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Enfield</a>	Other (Conventional)	CONVENTIONAL

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<b>STATION NAME FROM TEC REGISTER</b>	<b>FUEL TYPE</b>	<b>CONVENTIONAL / INTERMITTENT</b>
<a href="#">Errochty</a>	Hydro	CONVENTIONAL
<a href="#">Fallago</a>	Intermittent	INTERMITTENT
<a href="#">Farr Wind Farm, Tomatin</a>	Intermittent	INTERMITTENT
<a href="#">Fasnakyle</a>	Hydro	CONVENTIONAL
<a href="#">Fawley</a>	Peaking	CONVENTIONAL
<a href="#">Fawley CHP</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Ferrybridge</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Ffestiniog</a>	Pumped Storage	CONVENTIONAL
<a href="#">Fiddlers Ferry</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Finlarig</a>	Hydro	CONVENTIONAL
<a href="#">Foyers</a>	Pumped Storage	CONVENTIONAL
<a href="#">Glendoe</a>	Hydro	CONVENTIONAL
<a href="#">Glenmoriston</a>	Hydro	CONVENTIONAL
<a href="#">Gordonbush Wind</a>	Intermittent	INTERMITTENT
<a href="#">Grain</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Great Yarmouth</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Greater Gabbard Offshore Wind Farm</a>	Intermittent	INTERMITTENT
<a href="#">Griffin Wind Farm</a>	Intermittent	INTERMITTENT
<a href="#">Gunfleet Sands II Offshore Wind Farm</a>	Intermittent	INTERMITTENT
<a href="#">Gunfleet Sands Offshore Wind Farm</a>	Intermittent	INTERMITTENT
<a href="#">Gwynt Y Mor Offshore Wind Farm</a>	Intermittent	INTERMITTENT
<a href="#">Hadyard Hill</a>	Intermittent	INTERMITTENT
<a href="#">Harestanes</a>	Intermittent	INTERMITTENT
<a href="#">Hartlepool</a>	Nuclear & CCS	CONVENTIONAL
<a href="#">Heysham Power Station</a>	Nuclear & CCS	CONVENTIONAL
<a href="#">Hinkley Point B</a>	Nuclear & CCS	CONVENTIONAL
<a href="#">Hornsea Offshore Wind Farm</a>	Intermittent	INTERMITTENT
<a href="#">Humber Gateway Offshore Wind Farm</a>	Intermittent	INTERMITTENT
<a href="#">Hunterston</a>	Nuclear & CCS	CONVENTIONAL
<a href="#">Immingham</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Indian Queens</a>	Peaking	CONVENTIONAL
<a href="#">Invergarry</a>	Hydro	CONVENTIONAL
<a href="#">Ironbridge</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Keadby</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Killingholme</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Killingholme 2</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Kilmorack</a>	Hydro	CONVENTIONAL
<a href="#">Langage</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Lincs Offshore Wind Farm</a>	Intermittent	INTERMITTENT

<b>STATION NAME FROM TEC REGISTER</b>	<b>FUEL TYPE</b>	<b>CONVENTIONAL / INTERMITTENT</b>
Little Barford	Other (Conventional)	CONVENTIONAL
Littlebrook	Peaking	CONVENTIONAL
Lochay	Hydro	CONVENTIONAL
Lochluichart	Intermittent	INTERMITTENT
London Array	Intermittent	INTERMITTENT
Longannet	Other (Conventional)	CONVENTIONAL
Luichart	Hydro	CONVENTIONAL
Marchwood	Other (Conventional)	CONVENTIONAL
Mark Hill Wind Farm	Intermittent	INTERMITTENT
Medway Power Station	Other (Conventional)	CONVENTIONAL
Millennium Wind Ceannacroc	Intermittent	INTERMITTENT
Mossford	Hydro	CONVENTIONAL
Nant	Hydro	CONVENTIONAL
Ormonde Offshore Wind Farm	Intermittent	INTERMITTENT
Orrin	Hydro	CONVENTIONAL
Pembroke Power Station	Other (Conventional)	CONVENTIONAL
Peterborough	Other (Conventional)	CONVENTIONAL
Peterhead	Other (Conventional)	CONVENTIONAL
Quoich	Hydro	CONVENTIONAL
Ratcliffe on Soar	Other (Conventional)	CONVENTIONAL
Robin Rigg East	Intermittent	INTERMITTENT
Robin Rigg West	Intermittent	INTERMITTENT
Rocksavage	Other (Conventional)	CONVENTIONAL
Rugeley	Other (Conventional)	CONVENTIONAL
Rye House	Other (Conventional)	CONVENTIONAL
Saltend	Other (Conventional)	CONVENTIONAL
Seabank	Other (Conventional)	CONVENTIONAL
Sellafield	Nuclear & CCS	CONVENTIONAL
Severn Power	Other (Conventional)	CONVENTIONAL
Sheringham Shoal Offshore Windfarm	Intermittent	INTERMITTENT
Shoreham	Other (Conventional)	CONVENTIONAL
Sizewell B	Nuclear & CCS	CONVENTIONAL
Sloy G2 and G3	Hydro	CONVENTIONAL
South Humberbank	Other (Conventional)	CONVENTIONAL
Spalding	Other (Conventional)	CONVENTIONAL
Staythorpe C	Other (Conventional)	CONVENTIONAL
Strath Brora Wind, Brora	Intermittent	INTERMITTENT
Strathy North & South Wind	Intermittent	INTERMITTENT
Sutton Bridge	Other (Conventional)	CONVENTIONAL
Taylors Lane	Peaking	CONVENTIONAL
Thanet Offshore Windfarm	Intermittent	INTERMITTENT

<b>STATION NAME FROM TEC REGISTER</b>	<b>FUEL TYPE</b>	<b>CONVENTIONAL / INTERMITTENT</b>
<a href="#">Tilbury B</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Toddleburn Wind Farm</a>	Intermittent	INTERMITTENT
<a href="#">Torness</a>	Nuclear & CCS	CONVENTIONAL
<a href="#">Walney I Offshore Wind Farm</a>	Intermittent	INTERMITTENT
<a href="#">Walney II Offshore Wind Farm</a>	Intermittent	INTERMITTENT
<a href="#">West Burton A</a>	Other (Conventional)	CONVENTIONAL
<a href="#">West Burton B</a>	Other (Conventional)	CONVENTIONAL
<a href="#">West of Duddon Sands Offshore Wind Farm</a>	Intermittent	INTERMITTENT
<a href="#">Westermost rough</a>	Intermittent	INTERMITTENT
<a href="#">Whitelee</a>	Intermittent	INTERMITTENT
<a href="#">Whitelee Extension</a>	Intermittent	INTERMITTENT
<a href="#">Wilton</a>	Other (Conventional)	CONVENTIONAL
<a href="#">Wylfa</a>	Nuclear & CCS	CONVENTIONAL

**Appendix D: Onshore local circuit tariff changes for 2014/15**

<b>Substation</b>	<b>13/14</b>	<b>14/15 Initial</b>	<b>14/15 Upd</b>	<b>Change</b>	<b>Change</b>	<b>WACM2</b>
Achruch	-	4.66	<b>4.12</b>	-	-0.54	<b>4.12</b>
Aigas	0.53	0.55	<b>0.57</b>	0.04	0.02	<b>0.57</b>
Aikengall II	-	0.41	-	-	-	-
An Suidhe	1.17	1.2	<b>0.54</b>	-0.63	-0.66	<b>0.54</b>
Andershaw	2.42	2.48	-	-	-	-
Arecleoch	0.07	0.07	<b>0.27</b>	0.20	0.20	<b>1.80</b>
Aultmore	-	3.15	-	-	-	-
Baglan Bay	0.55	0.57	<b>0.57</b>	0.02	0.00	<b>0.57</b>
Black Hill	1.36	1.39	-	-	-	-
Black Law	0.85	0.87	<b>0.87</b>	0.02	0.00	<b>0.87</b>
BlackCraig	1.04	1.06	-	-	-	-
Blacklaw Extension	2.48	2.55	-	-	-	-
Bodelwyddan	-0.02	-0.02	<b>-0.03</b>	-0.01	-0.01	<b>-0.01</b>
Brockloch	-	0.72	-	-	-	-
Carraig Gheal	3.73	3.83	<b>3.84</b>	0.11	0.01	<b>3.84</b>
Carrington	-	0.01	<b>0.01</b>	-	0.00	<b>0.00</b>
Cleve Hill	0.32	0.33	<b>0.33</b>	0.01	0.00	<b>0.02</b>
Clyde (North)	0.09	0.1	<b>0.10</b>	0.01	0.00	<b>0.10</b>
Clyde (South)	0.11	0.11	<b>0.11</b>	0.00	0.00	<b>0.11</b>
Corriegarth	-	2.31	-	-	-	-
Corriemoillie	2.83	2.91	<b>2.40</b>	-0.43	-0.51	<b>2.40</b>
Coryton	0.29	0.31	<b>0.05</b>	-0.24	-0.26	<b>0.05</b>
Cruachan	1.52	1.56	<b>1.66</b>	0.14	0.10	<b>1.66</b>
Crystal Rig	0.35	0.41	<b>0.36</b>	0.01	-0.05	<b>0.35</b>
Culligran	1.47	1.51	<b>1.51</b>	0.04	0.00	<b>1.51</b>
Deanie	2.41	2.48	<b>2.49</b>	0.08	0.01	<b>2.49</b>
Dersalloch	1.55	1.59	<b>1.60</b>	0.05	0.01	<b>1.60</b>
Didcot	0.22	0.22	<b>0.22</b>	0.00	0.00	<b>0.45</b>
Dinorwig	2.04	2.09	<b>2.10</b>	0.06	0.01	<b>2.10</b>
Edinbane	5.81	5.96	<b>5.98</b>	0.17	0.02	<b>5.98</b>
Ewe Hill	2.35	2.41	-	-	-	-
Fallago	0.92	0.43	<b>0.95</b>	0.03	0.52	<b>0.94</b>
Farr Windfarm	1.9	1.95	<b>2.05</b>	0.15	0.10	<b>2.05</b>
Ffestiniogg	0.21	0.22	<b>0.22</b>	0.01	0.00	<b>0.22</b>
Finlarig	0.27	0.28	<b>0.28</b>	0.01	0.00	<b>0.28</b>
Foyers	0.65	0.66	<b>0.67</b>	0.02	0.01	<b>0.67</b>
Glendoe	1.56	1.6	<b>1.61</b>	0.05	0.01	<b>1.61</b>
Glenmoriston	1.12	1.15	<b>1.15</b>	0.03	0.00	<b>1.15</b>
Gordonbush	3.47	3.56	<b>2.28</b>	-1.19	-1.28	<b>2.28</b>
Griffin Wind	2.72	0.54	<b>1.37</b>	-1.35	0.83	<b>1.40</b>
Hadyard Hill	2.46	2.52	<b>2.41</b>	-0.05	-0.11	<b>2.41</b>
Harestanes	4.3	4.41	<b>4.42</b>	0.12	0.01	<b>4.40</b>
Hartlepool	0.5	0.51	<b>0.56</b>	0.06	0.05	<b>0.57</b>
Hedon	0.15	0.16	<b>0.17</b>	0.02	0.01	<b>0.17</b>
Hornsea	-	0.01	<b>0.01</b>	-	0.00	<b>0.01</b>
Invergarry	-0.58	-0.6	<b>1.24</b>	1.82	1.84	<b>1.24</b>
Kilbraur	1.72	1.76	<b>1.13</b>	-0.59	-0.63	<b>1.13</b>
Kilmorack	0.15	0.15	<b>0.17</b>	0.02	0.02	<b>0.17</b>
Langage	0.56	0.57	<b>0.57</b>	0.01	0.00	<b>0.57</b>
Lochay	0.31	0.32	<b>0.32</b>	0.01	0.00	<b>0.32</b>
Luichart	0.96	0.99	<b>0.99</b>	0.03	0.00	<b>0.99</b>

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Substation	13/14	14/15 Initial	14/15 Upd	Change	Change	WACM2
Marchwood	0.32	0.33	<b>0.33</b>	0.01	0.00	<b>0.33</b>
Margee	0.89	0.91	-	-	-	-
Mark Hill	-0.74	-0.76	<b>-0.76</b>	-0.02	0.00	<b>0.76</b>
Millennium Wind	1.38	1.41	<b>1.42</b>	0.04	0.01	<b>1.42</b>
Mossford	3.17	3.26	<b>3.46</b>	0.29	0.20	<b>3.46</b>
Nant	-1.04	-1.07	<b>2.19</b>	3.23	3.26	<b>2.19</b>
Neilston	1.05	1.08	-	-	-	-
Newfield	3.71	3.81	-	-	-	-
Quoich	1.68	3.77	<b>3.78</b>	2.10	0.01	<b>3.78</b>
Rocksavage	0.01	0.02	<b>0.02</b>	0.01	0.00	<b>0.02</b>
Rowantree	-	1.74	-	-	-	-
Saltend South	0.29	0.3	<b>0.30</b>	0.01	0.00	<b>0.30</b>
Spalding	0.26	0.26	<b>0.27</b>	0.01	0.01	<b>0.24</b>
Staycain Windfarm	1.29	1.33	-	-	-	-
Sth Humber Bank	0.71	0.51	<b>0.36</b>	-0.35	-0.15	<b>0.36</b>
Strathy Wind	-	4.52	-	-	-	-
Teesside	0.06	0.06	-	-	-	-
Thames Haven	-	0.24	-	-	-	-
Ulzieside	3.83	3.93	-	-	-	-
Whitelee	0.09	0.09	<b>0.09</b>	0.00	0.00	<b>0.09</b>
Whitelee Extension	0.25	0.26	<b>0.26</b>	0.01	0.00	<b>0.26</b>

## Appendix E: Revenue Scenarios

### *Low Scenario*

In the low scenario we have reduced the total transmission allowed revenue by ~£30m, which is based on:

- Ofgem awards no additional revenues under the Network Innovation Competition; (~£15m)
- Delay in asset transfer of Gwynt y Môr by 6 months (~£10m)
- A reduction in annual inflation from 3.4% to 3.2%. (~£5m)
- No change in Scottish TO revenues

### *High Scenario*

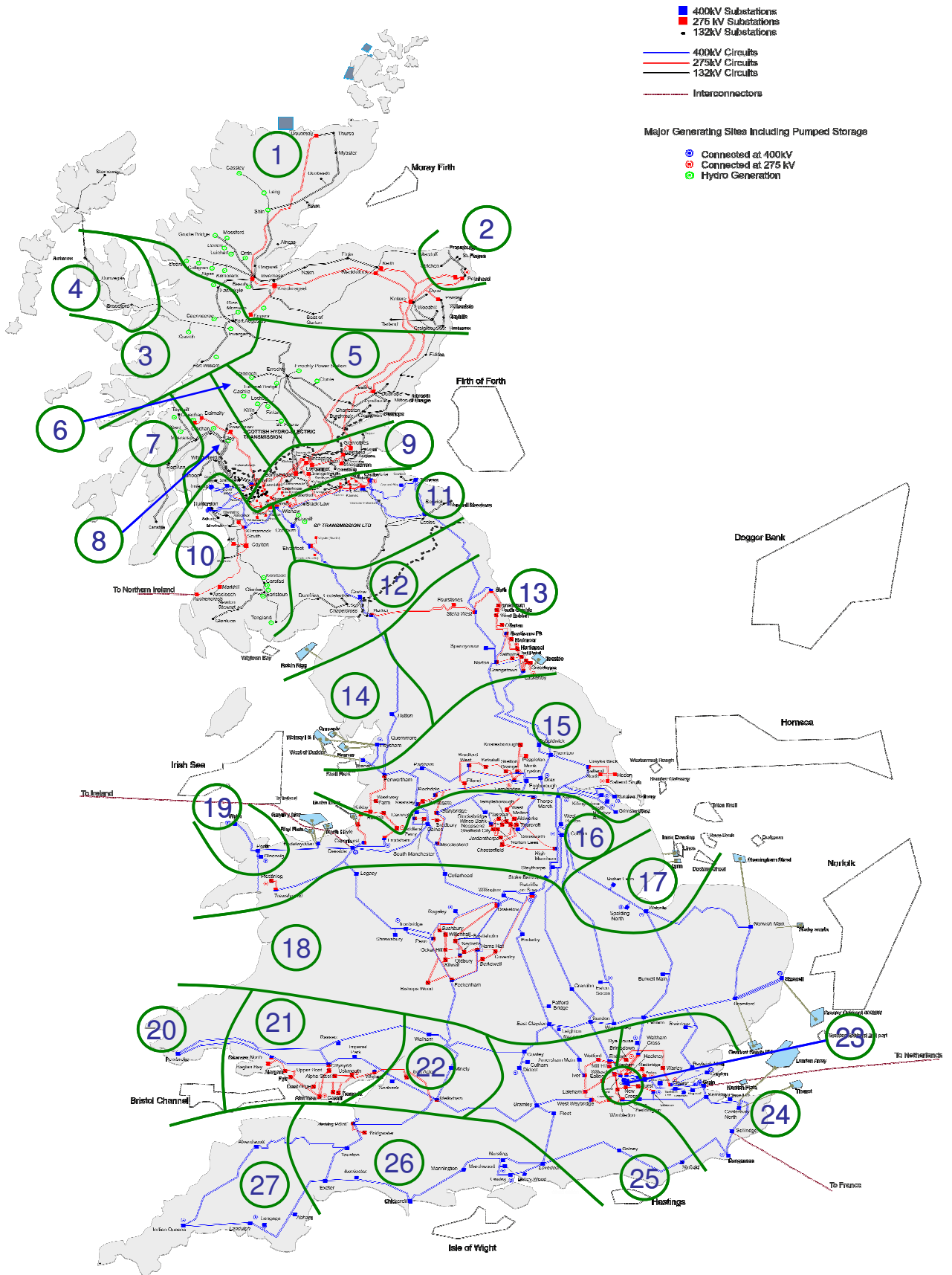
In the high scenario we have increased the total transmission allowed revenue by £15m, which is based on:

- Earlier asset transfer for Gwynt y Môr with Lincs Wind Farm one offs occurring in 2014/15 (+~£5m)
- Earlier asset transfer for Humber Gateway (+£5m)
- An increase in annual inflation from 3.4% to 3.6%. (+~£5m)
- No change in Scottish TO revenues

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# Appendix F: Generation Zone Map



## Appendix G Generic & Specific ALFs

Technology	Generic ALF	Intermittent/ Conventional	Carbon/ Low Carbon
Biomass	20.3267%	Conventional	Carbon
Coal	42.9015%	Conventional	Carbon
CCGT_and_CHP	59.1692%	Conventional	Carbon
Hydro	32.8815%	Conventional	Low Carbon
Nuclear	67.9033%	Conventional	Low Carbon
Oil_and_OCGT	0.5942%	Conventional	Carbon
Onshore_Wind	34.0397%	Intermittent	Low Carbon
Offshore_Wind	32.7710%	Intermittent	Low Carbon
Pumped_Storage	12.0802%	Conventional	Carbon

Power Station	Specific ALF
Aberthaw	49.8010%
AChruach Wind Farm	34.0397%
Aigas	28.5427%
An Suidhe Wind Farm	29.1553%
Arcleoch	31.3817%
Baglan Bay	42.9466%
Barking	51.5495%
Barrow Offshore Wind Farm	39.8879%
Barry Power Station	24.9241%
Black Law	23.5308%
Brigg	16.8951%
Enfield	58.4630%
Bristol	20.3267%
Carraig Gheal Wind Farm	28.3445%
Carrington Power Station	59.1692%
Clunie	34.4812%
Clyde (North)	32.0942%
Clyde (South)	27.9442%
Connahs Quay	49.7749%
Corby	22.8432%
Coryton	64.4093%
Cottam	61.8679%
CDCL	60.7847%
Cowes	0.2185%
Cruachan	12.8447%
Crystal Rig 2	39.3188%
Culligran	28.5427%
Damhead Creek	80.4314%
Deanie	28.5427%
Deeside	51.7362%
Dersalloch	34.0397%
Didcot B	60.7214%
Dinorwig	15.5965%
Drax	80.6044%
Dungeness B	37.3656%

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<b>Power Station</b>	<b>Specific ALF</b>
Dunlaw Extension	35.8245%
Edinbane Wind	37.4482%
Eggborough	44.5432%
Errochty	16.9487%
Fallago	34.0397%
Farr Wind Farm, Tomatin	34.9974%
Fasnakyle	27.7267%
Fawley	0.3473%
Fawley CHP	67.7941%
Ferrybridge	39.1075%
Ffestiniog	3.3998%
Fiddlers Ferry	45.2313%
Finlarig	49.7988%
Foyers	16.4798%
Glendoe	8.6700%
Glenmoriston	39.5809%
Gordonbush Wind	34.1219%
Grain	59.1962%
BP Grangemouth	62.5576%
Great Yarmouth	62.8449%
Greater Gabbard Offshore Wind Farm	30.2699%
Griffin Wind Farm	20.9180%
Gunfleet Sands Offshore Wind Farm	43.6476%
Gunfleet Sands II Offshore Wind Farm	41.9184%
Gwynt Y Mor Offshore Wind Farm	34.0397%
Hadyard Hill	28.6359%
Harestanes	34.0397%
Hartlepool	75.8453%
Heysham Power Station	74.5819%
Hinkley Point B	56.2024%
Hornsea Offshore Wind Farm	32.7710%
Humber Gateway Offshore Wind Farm	32.7710%
Hunterston	71.9541%
Immingham	61.1421%
Indian Queens	1.3472%
Invergarry	47.9130%
Ironbridge	13.3325%
Keadby	58.7584%
Kilbraur	40.3558%
Killingholme 2 (Centrica)	25.3252%
Killingholme (Eon)	32.0423%
Kilmorack	28.5427%
Langage	58.9040%
Lincs Offshore Wind Farm	23.0612%
Little Barford	52.4120%
Littlebrook	0.3172%
Lochay	36.2283%
Lochluichart	34.0397%
London Array	25.8161%

<b>Power Station</b>	<b>Specific ALF</b>
Longannet	47.4634%
Luichart	48.9309%
Marchwood	70.3358%
Mark Hill Wind Farm	30.1942%
Medway Power Station	38.5004%
Millennium Wind	39.3470%
Mossford	48.9309%
Nant	24.4754%
Ormonde Offshore Wind Farm	22.7118%
Orrin	48.9309%
Pembroke Power Station	59.9606%
Peterborough	15.3458%
Peterhead	57.9350%
Quoich	47.9130%
Ratcliffe on Soar	57.4270%
Robin Rigg East	36.7437%
Robin Rigg West	38.0483%
Rocksavage	47.7737%
Rugeley	52.6783%
Rye House	42.7527%
Saltend	89.7588%
Seabank	55.4754%
Sellafield	22.0672%
Severn Power	38.5267%
Sheringham Shoal Offshore Windfarm	23.4225%
Shoreham	69.0809%
Sizewell B	85.1800%
Sloy	10.3530%
South Humberbank	57.0557%
Spalding	65.6815%
Staythorpe C	54.7259%
Strathy North & South	34.0397%
Sutton Bridge	60.4883%
Taylors Lane	0.2514%
Thanet Offshore Windfarm	34.4717%
Tilbury B	20.3267%
Toddleburn Wind Farm	33.9985%
Torness	85.8904%
Walney I Offshore Wind Farm	40.8857%
Walney II Offshore Wind Farm	33.1274%
West Burton A	49.0529%
West Burton B	44.2277%
West of Duddon Sands Offshore Wind Farm	32.7710%
Westermost Rough	32.7710%
Whitelee	26.9398%
Whitelee Extension	26.8312%
Wilton	24.2345%
Wylfa	72.3843%