

Updates to generation and demand Transmission Network Use of System (TNUoS) tariffs in 2010/11

Introduction

This notice sets out draft updated to generation and demand TNUoS tariffs that National Grid expects to implement on **1 December 2010**. National Grid anticipates publishing final updated tariffs on 1 October 2010.

Background to mid-year tariff changes

National Grid Electricity Transmission (National Grid) set TNUoS tariffs for 2010/11 in January 2010. When setting tariffs, National Grid took a view of the total revenue to be recovered for the year, which in 2010/11 included revenues that related to offshore transmission networks. At this time, no information was available about the revenues offshore transmission owners (OFTOs) would require National Grid to collect on their behalf, as the offshore tender process had not reached a sufficiently advanced stage. Accordingly National Grid made a number of assumptions about OFTO allowed revenues and the revenues that would subsequently be recovered through TNUoS charges from offshore users.

Whilst National Grid sought to use the best available information to make assumptions about offshore costs, we were concerned that these assumptions might transpire to be inaccurate once the tender process had been completed and that this might impact the cost reflectivity of TNUoS charges. Noting that the regulatory framework did not prohibit National Grid setting tariffs more than once in a financial year, the charging methodology was unclear how multiple tariffs would work in practice. Therefore, to facilitate making a potential mid-year tariff change, charging methodology amendment GB ECM-21¹ was proposed on 2 December 2009 and subsequently not vetoed by the Authority, to clarify how National Grid would change TNUoS charges mid-year.

Rationale for a mid-year tariff change

Commencement of the offshore regime finally occurred on 22 July 2010, with preferred bidders announced on 5 August 2010. Ofgem subsequently provided National Grid – on a confidential basis – information about the revenue streams tendered by the preferred bidders on 12 August 2010. This information, coupled with delays to commencement of the offshore regime, means the revenue that National Grid will be required to collect for offshore transmission owners is significantly lower than that anticipated in January 2010.

Separate to these offshore matters, there have been a number of other changes that are relevant to the proposed mid-year tariff change that National Grid is seeking to make. These changes affect National Grid's total allowed revenue, forecast revenue collection, and our view of the generation and demand charging bases in 2010/11. In particular, both Scottish TOs have increased their allowed revenue during 2010/11 and passed this on to National Grid under provisions in the SO-TO Code; and National Grid's forecast revenue collection has reduced following unexpected TEC reductions and the possibility that no TNUoS revenue will be recovered from interconnector asset owners in 2010/11 if GB ECM-262 is not vetoed; and the demand charging bases have also changed.

¹[GB ECM-21 Changing Tariffs Mid-year](#)

²[GB ECM-26 Review of Interconnector Charging Arrangements](#)

The main affect of the tariff changes is to rebalance revenue recovery between generation and demand, which would not be addressed through other means, such as National Grid's revenue correction mechanism.

Tariffs affected by mid-year update

The tariff changes that National Grid is seeking to make in 2010/11 affects:

- local offshore TNUoS tariffs;
- generation TNUoS tariffs applicable to all generation; and
- demand TNUoS tariffs applicable to half-hourly (HH) and non half-hourly (NHH) demand.

The combination of changes to these tariffs will ensure that the correct total revenue is recovered in 2010/11 and, moreover, in the right proportions between onshore and offshore users, and also between generation and demand users.

For the avoidance of doubt, there will be no change to the local onshore circuit and substation TNUoS tariffs published in January 2010.

Timing of mid-year tariff changes

At the time when GB ECM-21 was raised, it was widely expected that the offshore arrangements would go-live in July 2010 and that the process to asset transfer would allow a mid-year tariff change to occur on 1 October 2010. This expectation was communicated to the industry in National Grid's conclusion report on GB ECM-21 and subsequently at Customer Seminars held during March 2010.

Since then, however, a number of important changes have occurred, which make an October tariff change impractical. These factors include the delay to the announcement of preferred bidders and a revised (longer) process to asset transfer. These factors mean that key information will not be available for National Grid to undertake a mid-year tariff change in October given the standard notice periods required for changing use of system charges. Accordingly, National Grid has set out the following revised timetable for a mid-year tariff change to generation and demand TNUoS tariffs.

1 September 2010	Publish draft updated TNUoS tariffs
1 October 2010	Publish final updated TNUoS tariffs
1 December 2010	Implement updated TNUoS tariffs

National Grid will separately be providing draft local offshore TNUoS tariffs to offshore users on 1 September 2010. As the offshore asset transfer timetable is specific to each offshore project and these might progress at different paces, National Grid expects to provide at least 1 month written notice of final local offshore TNUoS tariffs, with implementation of these tariffs anticipated to be on the 1st day of the relevant month following asset transfer.

The regulatory and commercial framework requires National Grid to provide the Authority 150 day's notice of its intention to change use of system charges; and two month's written notice to users of actual changes. In developing this timetable for the mid-year tariff update, National Grid

has sought to maximise the notice provided to the industry whilst also ensuring that updated tariffs are applied for a reasonable period during 2010/11, i.e. to avoid making a change for just one month. Therefore, in order to hold to these timetables, National Grid requires consent from the Authority to reduce the standard notice periods. Against this background, National Grid has written to the Authority to seek consent to reduce the standard 150 day notice period such that it aligns with a 2 month written notice of changes to wider generation and demand tariffs, and at least 1 months written notice of changes to local offshore tariffs, which itself requires consent from the Authority to reduce the standard 2 month written notice. Should these consents not be given, National Grid will reconsider the appropriateness and timing of any tariff update in 2010/11.

Draft updated tariffs for 2010/11

As noted above there have been several changes to the data needed to set TNUoS tariffs. Since setting charges in January 2010 the following changes have occurred:

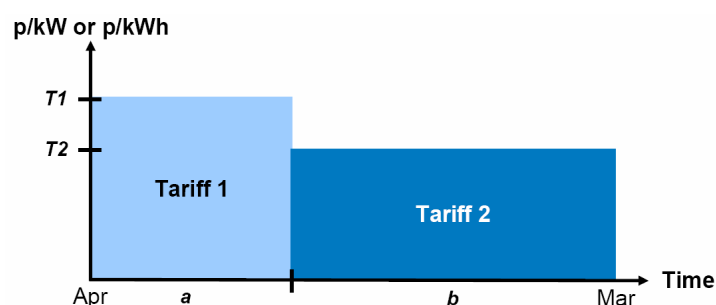
- ❑ total revenue recoverable through TNUoS charges has reduced by approximately £34m due to a combination of onshore and offshore changes;
- ❑ the expected generation charging base has fallen due to TEC reductions made after charge setting (but before the deadline set out in the CUSC) and delays to generation projects completing in 2010/11; and
- ❑ the observed demand charging base has increased slightly and there has been some rebalancing between zones.

Appendix A and B show draft updated tariffs for 2010/11 and draft effective tariffs for 2010/11, respectively. It should be noted that the effective tariffs represent the tariff upon which each user's total annual liability will be determined for 2010/11, whereas the draft updated tariffs have been scaled to reflect the time over which it is applied in order to collect the expected revenue.

The appendices show that demand tariffs have reduced, due to the reduction in the demand target revenue. In contrast generation tariffs have increased, despite the reduction in generation target revenue. This is because whilst generation target revenue is reduced, this is more than offset by the reduction in revenues that are expected to be recovered from offshore generators. This means that the generation residual tariff must increase to ensure that generation as a whole (onshore plus offshore) pay 27% of total TNUoS revenues.

Calculating revised annual and monthly charging liabilities

In the case of **generation and HH demand**, the information needed to determine a user's revised annual liability are the tariff rates applicable during the year and the duration these have been applied. The annual liability is then determined by multiplying the chargeable capacity (TEC or HH triad) by the relevant tariffs pro-rated over the entire charging year, as shown below.



$$\text{Annual Liability} = \text{Chargeable Capacity} \times \text{Effective Tariff} ; \text{ and} \quad (1)$$

$$\text{Effective Tariff} = \left(\frac{a \times \text{Tariff 1} + b \times \text{Tariff 2}}{12} \right) \quad (2)$$

where:

Tariff 1 = Original tariff;

Tariff 2 = Updated tariff;

a = Number of months over which the original tariff is applicable; and

b = Number of months over which the updated tariff is applicable.

The revised monthly liability is determined deducting the total payments made prior to the tariff change from the revised annual liability and then spreading this remaining amount over the months left in the charging year in equal instalments.

In the case of **NHH demand**, the information needed to determine a user's revised annual liability are the tariff rates applicable during the year and the consumption that has been taken during the periods these tariffs applied. The annual liability is then determined by multiplying relevant tariffs by the energy consumption over the period that the tariffs are applicable and summing over the year, as shown below.

$$\begin{aligned} \text{Annual Liability} = & \text{Tariff 1} \times \sum_{T1_S}^{T1_E} \text{Chargeable Energy Consumption} \\ & + \text{Tariff 2} \times \sum_{T2_S}^{T2_E} \text{Chargeable Energy Consumption} \end{aligned} \quad (3)$$

where:

Tariff 1 = Original tariff;

Tariff 2 = Updated tariff;

T1_S = Start date for the period for which the original tariff is applicable;

T1_E = End date for the period for which the original tariff is applicable;

T2_S = Start date for the period for which the updated tariff is applicable; and

T2_E = End date for the period for which the updated tariff is applicable.

As before, the revised monthly liability is determined deducting the total payments made prior to the tariff change from the revised annual liability and then spreading this remaining amount over the months left in the charging year in equal instalments.

Examples – Generation and Demand

The following examples show how generators and suppliers should interpret the updated tariffs to determine how their annual liabilities will change during 2010/11.

Generator example

A 1000MW generator in Zone 10 currently has a tariff of £8.79/kW (Tariff 1) and this will change to £10.53/kW (Tariff 2) on 1 December 2010. The updated tariff will apply for 4 months. Prior to the tariff update the effective tariff is £8.79/kW, as it was expected to apply for the full 12 month period.

The effective tariff from 1 December 2010 is £9.37/kW using equation 2 above. The resulting annual and monthly liabilities are shown in the following table.

Generation	Pre-tariff update	Post-tariff update
Chargeable capacity (MW)	1000	1000
Tariff (£/kW)	8.79	10.53
Effective tariff (£/kW)	8.79	9.37
Duration tariff is applicable (months)	8	4
Annual liability (£m)	8.79	9.37
Monthly charge (£m)	0.73	0.88
Total payments at tariff rate (£m)	5.86	3.51
Total annual payment (£m)	8.79	9.37

Supplier example

A supplier has a portfolio of HH and NHH demand in Zone 6. The supplier's forecast expected triad demand is 300 MW and its forecast energy consumption between 4pm to 7pm is expected to be 200 GWh. A mid-year tariff update takes effect on 1 December 2010, at which point the energy consumption is 60% of the total annual consumption.

For the supplier's **HH demand** the TNUoS tariff will change from £18.89/kW (Tariff 1) to £17.57/kW (Tariff 2) on 1 December 2010 and will apply for the remaining 4 months. Prior to the tariff update the effective tariff is £18.89/kW, as it was expected to apply for the full 12 month period. The effective tariff from 1 December 2010 is £18.45/kW using equation 2 above. The resulting annual and monthly liabilities are shown in the following table.

HH Demand	Pre-tariff update	Post-tariff update
Chargeable capacity (MW)	300	300
Tariff (£/kW)	18.89	17.57
Effective tariff (£/kW)	18.89	18.45
Duration tariff is applicable (months)	8	4
Annual liability (£m)	5.67	5.54
Monthly charge (£m)	0.47	0.44
Total payments at tariff rate (£m)	3.78	1.76
Total annual payment (£m)	5.67	5.54

For the supplier's **NHH demand** the TNUoS tariff will change from 2.63p/kWh (Tariff 1) to 2.55p/kWh (Tariff 2) on 1 December 2010 and will apply for 4 months. The chargeable energy consumption during Tariff 1 is 120 GWh and the chargeable energy consumption during Tariff 2 is 80 GWh, based on the consumption profile outlined above. Prior to the tariff update the suppliers annual NHH liability was £5.25m and this is changed to £5.19m following the tariff change using equation 3, above. The resulting annual and monthly liabilities are shown in the following table.

NHH Demand	Pre-tariff update	Post-tariff update
Tariff (p/kWh)	2.63	2.55
Duration tariff is applicable (months)	8	4
Volume tariff is applicable (GWh)	120	80
Annual liability (£m)	5.25	5.19
Monthly charge (£m)	0.44	0.42
Total payments at tariff rate (£m)	3.50	1.69
Total annual payment (£m)	5.25	5.19

Changes to Backing Sheets for monthly TNUoS invoices

National Grid intends to make a number of changes to the backing sheets that support the monthly invoices for use of system charges. These changes are required so that the backing sheets clearly show how a customer's charging liability has been determined when multiple tariffs have been applied during a financial year.

National Grid anticipates making 'dummy' backing sheets available on its website, so that customers can familiarise themselves with the new layout before the changes are implemented on 1 December 2010. These will be located at the following address:

<http://www.nationalgrid.com/uk/Electricity/Charges/usefulinfo/>

Updates to the Statement of Use of System Charges

The Statement of Use of System Charges is designed to ensure that customers can make a reasonable estimate of these charges. Against this background, National Grid believes several revisions to this statement will be required throughout 2010/11 as and when TNUoS tariffs are updated. Accordingly, National Grid envisages updating the statement on 1 December 2010 to align with the proposed changes due to updated wider generation and demand tariffs. Further revisions will be needed when each local offshore tariff is determined. Where data availability permits, National Grid will seek to limit the number of revisions by making several changes at once.

Further information

- [Statement of the Use of System Charging Methodology](#)
- [Statement of Use of System Charges](#)
- Alternatively, please contact the Charging Team on 01926 654633.

Appendix A: Current and updated zonal tariffs in 2010/11

(assuming a December implementation)

Generation Tariffs

Zone No.	Zone Name	Current Tariff (£/kW)	Indicative Updated Tariff (£/kW)	Difference (£/kW)
1	North Scotland	20.08	21.82	1.74
2	Peterhead	18.71	20.45	1.74
3	Western Highland & Skye	22.79	24.53	1.74
4	Central Highlands	17.63	19.37	1.74
5	Argyll	13.34	15.08	1.74
6	Stirlingshire	13.44	15.18	1.74
7	South Scotland	12.49	14.22	1.74
8	Auchencrosh	10.91	12.65	1.74
9	Humber & Lancashire	5.42	7.16	1.74
10	North East England	8.79	10.53	1.74
11	Anglesey	6.17	7.91	1.74
12	Dinorwig	5.50	7.24	1.74
13	South Yorks & North Wales	3.59	5.33	1.74
14	Midlands	1.56	3.30	1.74
15	South Wales & Gloucester	0.39	2.13	1.74
16	Central London	-6.41	-4.68	1.74
17	South East	0.81	2.55	1.74
18	Oxon & South Coast	-1.36	0.38	1.74
19	Wessex	-2.64	-0.90	1.74
20	Peninsula	-5.87	-4.13	1.74

HH Demand Tariffs (includes Small Generators adjustment)

Zone No.	Zone Name	Current Zonal Tariff (£/kW)	Indicative Updated Tariff (£/kW)	Difference (£/kW)
1	Northern Scotland	5.87	4.54	-1.32
2	Southern Scotland	11.22	9.89	-1.32
3	Northern	14.52	13.20	-1.32
4	North West	18.43	17.10	-1.32
5	Yorkshire	18.34	17.02	-1.32
6	N Wales & Mersey	18.89	17.57	-1.32
7	East Midlands	20.93	19.61	-1.32
8	Midlands	22.69	21.37	-1.32
9	Eastern	21.84	20.51	-1.32
10	South Wales	22.52	21.20	-1.32
11	South East	24.63	23.31	-1.32
12	London	26.76	25.43	-1.32
13	Southern	25.49	24.17	-1.32
14	South Western	26.06	24.73	-1.32

NHH Energy Consumption Tariffs (includes Small Generators adjustment)

Zone No.	Zone Name	Current Zonal Tariff (p/kWh)	Indicative Updated Tariff (p/kWh)	Difference (p/kWh)
1	Northern Scotland	0.79	0.60	-0.19
2	Southern Scotland	1.55	1.40	-0.14
3	Northern	1.99	1.81	-0.19
4	North West	2.55	2.43	-0.12
5	Yorkshire	2.52	2.26	-0.27
6	N Wales & Mersey	2.63	2.55	-0.07
7	East Midlands	2.89	2.73	-0.15
8	Midlands	3.18	3.06	-0.12
9	Eastern	3.03	2.69	-0.34
10	South Wales	3.03	2.92	-0.11
11	South East	3.38	3.14	-0.24
12	London	3.60	3.36	-0.24
13	Southern	3.54	3.38	-0.16
14	South Western	3.55	3.39	-0.17

Appendix B: Current and effective / annual average zonal tariffs assuming a December implementation

Generation Tariffs

Zone No.	Zone Name	Current Zonal Tariff (£/kW)	Indicative Effective Tariff (£/kW)	Difference (£/kW)
1	North Scotland	20.08	20.66	0.58
2	Peterhead	18.71	19.29	0.58
3	Western Highland & Skye	22.79	23.37	0.58
4	Central Highlands	17.63	18.21	0.58
5	Argyll	13.34	13.92	0.58
6	Stirlingshire	13.44	14.02	0.58
7	South Scotland	12.49	13.07	0.58
8	Auchencrosh	10.91	11.49	0.58
9	Humber & Lancashire	5.42	6.00	0.58
10	North East England	8.79	9.37	0.58
11	Anglesey	6.17	6.75	0.58
12	Dinorwig	5.50	6.08	0.58
13	South Yorks & North Wales	3.59	4.17	0.58
14	Midlands	1.56	2.14	0.58
15	South Wales & Gloucester	0.39	0.97	0.58
16	Central London	-6.41	-5.83	0.58
17	South East	0.81	1.39	0.58
18	Oxon & South Coast	-1.36	-0.78	0.58
19	Wessex	-2.64	-2.06	0.58
20	Peninsula	-5.87	-5.29	0.58

HH Demand Tariffs (includes Small Generators adjustment)

Zone No.	Zone Name.	Current Zonal Tariff (£/kW)	Indicative Effective Tariff (£/kW)	Difference (£/kW)
1	Northern Scotland	5.87	5.42	-0.44
2	Southern Scotland	11.22	10.78	-0.44
3	Northern	14.52	14.08	-0.44
4	North West	18.43	17.98	-0.44
5	Yorkshire	18.34	17.90	-0.44
6	N Wales & Mersey	18.89	18.45	-0.44
7	East Midlands	20.93	20.49	-0.44
8	Midlands	22.69	22.25	-0.44
9	Eastern	21.84	21.39	-0.44
10	South Wales	22.52	22.08	-0.44
11	South East	24.63	24.19	-0.44
12	London	26.76	26.32	-0.44
13	Southern	25.49	25.05	-0.44
14	South Western	26.06	25.62	-0.44

NHH Energy Consumption Tariffs (includes Small Generators adjustment)

Zone No.	Zone Name	Current Zonal Tariff (p/kWh)	Indicative Average Tariff (p/kWh)	Difference (p/kWh)
1	Northern Scotland	0.79	0.71	-0.08
2	Southern Scotland	1.55	1.49	-0.06
3	Northern	1.99	1.92	-0.08
4	North West	2.55	2.50	-0.05
5	Yorkshire	2.52	2.41	-0.11
6	N Wales & Mersey	2.63	2.60	-0.03
7	East Midlands	2.89	2.83	-0.06
8	Midlands	3.18	3.13	-0.05
9	Eastern	3.03	2.89	-0.14
10	South Wales	3.03	2.99	-0.04
11	South East	3.38	3.28	-0.10
12	London	3.60	3.51	-0.10
13	Southern	3.54	3.47	-0.06
14	South Western	3.55	3.49	-0.07