

Explanation of the NTS SO and TO Commodity Charges for the formula year 2010/11

Introduction

This document seeks to provide greater transparency to the processes and data used by National Grid Gas NTS (“National Grid”) to set the NTS System Operation (SO) and Transportation Owner (TO) Commodity Charges.

Charges are set before actual costs and allowed revenues have been finalised. In the case of the SO Commodity Charges actual allowed revenue (SO MAR) is not known until outturn costs for the formula year have been determined, therefore the SO and TO allowed revenues and their individual components have to be forecasted so as to allow charges to be set.

Forecasts are based on a number of different factors and assumptions including but not limited to, historical costs, historical auction revenues, the forward cost of gas, flows on the system, incentive schemes and regime changes. These can be subject to significant variances and volatility throughout the year, which are amplified by the fact that Indicative and Final notices and their related costs are forecast 150¹ days and 2 months before actual charges are implemented and costs incurred.

National Grid has an obligation to use its best endeavours in setting its charges to ensure that in respect of any formula year the revenue, which it derives from (SOR_t & TOR_t) shall not exceed the maximum NTS allowed revenue (SOMR_t & TOMR_t).

Therefore, as costs fluctuate throughout the year, the charging obligations on National Grid ensure that charges must fluctuate as well.

By providing greater transparency of the individual cost components and how these contribute to charges, NTS users could potentially forecast any future fluctuations and price changes.

If you would like further information on how the costs and allowed revenues are derived, please refer to System Operator incentive consultations, TO Price Control documents and charging notices for further detail regarding these matters.

Other related information sources

This document is one of a suite of documents that describe the NTS charges levied by National Grid and the methodologies behind them. The other documents that are available are:

- Statement of the Gas Transportation Charging Methodology
- Statement of Gas Transmission Transportation Charges
- Incremental Entry Capacity Release Methodology Statement
- Metering Charging Statement
- Connection Charging Statement

These are available on our Charging website at:

<http://www.nationalgrid.com/uk/Gas/Charges/statements/>

¹ In exceptional circumstances notices may be made in a time period less than 150 days such as a third price change

Structure of this document

This document is divided into three sections:

- Part A relates to the SO Commodity Charge;
- Part B provides details of the annual charge setting timetable and sources of further information.

PART A: SO COMMODITY CHARGE

The SO Commodity Charge recovers the difference between the SO allowed revenue and revenues received from other SO charges.

To derive the SO Commodity Charge a number of high-level steps are required:

- Step 1:** Determine the SO allowed revenue
- Step 2:** Determine the actual revenue to be recovered from the SO Commodity Charge
- Step 3:** Determine the volumes that attract the SO Commodity Charge
- Step 4:** Calculate the SO Commodity Charge rate

Step 1: Determining the SO allowed revenue

The maximum NTS SO allowed revenue in respect of formula year t ($SOMR_t$) is defined in National Grid's Gas Transporter Licence for the NTS ("the Licence"). It is calculated using the following formula:

$$SOMR_t = SOEIRC_t + SOExIRC_t + SOOIRC_t + SOIntIRC_t + SORA_t + BBIOCA_t + DELINC_t - SOK_t$$

Table 1 details the individual terms contained in the equation above, which have been used to determine the final prices that applied during the relevant year. Note that all the figures quoted within this note relate to the entire formula year, 2010/11.

Table 1

Terms used for Final notification of charges	October Value (£m)	Feb Ind Value (£m)
SO entry incentives, costs and revenues (SOEIRC _t)	64.5	73.1
SO exit incentives, costs and revenues (SOExIRC _t)	104.8	104.8
SO external incentives, costs and revenues (SOOIRC _t) ¹	200.0	137.1
SO internal incentives, costs and revenues (SOIntIRC _t)	60.3	59.0
SO income adjusting event adjustment (SORA _t)	0	0
SO buyback overall incentive collar adjustment (BBIOCA _t)	0	0
SO accelerated incremental capacity delivery incentive (DELINC _t)	0	0
Revenue adjustment term for prior year (SOK _t) *	(35.9)	(35.9)
Maximum NTS SO allowed revenue (SOMR_t)	465.4	409.8

²*SOK_t is deducted in the SOMR_t formula. Therefore any under recovery is shown as ().

For further details of the SO allowed revenue, refer to Special Condition C8C "NTS System Operation activity revenue restriction" Paragraph 3a of the Licence.

Typical variations in SOMR_t

The values in Table 1 are subject to uncertainty, particularly those that are linked to externalities such as gas costs. It is anticipated that separate reporting of the SO

² Meter revenue adjustments are included within the SO external incentives, costs and revenues (SOOIRC_t) term.

external incentive performance will allow shippers to better predict future price movements. However, shippers may wish to note:

- ❑ typically SOIntRC_t shows relatively little fluctuation throughout the year, as this term relates to the internal costs applicable to the SO activity;
- ❑ the SOEIRC_t and SOExIRC_t terms are largely collected through capacity and neutrality charges and hence do not contribute significantly to the variability of the SO Commodity charge;
- ❑ the SOOIRC_t term has been subject to large fluctuations. This is because the term includes System Balancing Costs which are heavily linked to gas costs, flows on the NTS and any meter error reconciliation adjustments; and
- ❑ the SOK_t term will not be subject to a significant variation when indicative October prices are published in May each year as it relates to any under/over recovery from the previous formula year, which will be largely finalised by that point in time.

Step 2: Determining the target revenue for the SO Commodity Charge

The maximum NTS SO allowed revenue is collected through a number of charges in addition to the standard SO Commodity Charge. The revenue from these other charges must first be forecasted so that the residual target revenue to be collected through the SO Commodity Charge can be calculated. The SO Commodity charge is set such that the target actual SO Revenue equals the maximum NTS allowed revenue. The actual NTS SO revenue (SOR_t) is calculated using the following formula:

$$SOR_t = SOROC_t + SORCAP_t + SOExRF_t + RCOM_t$$

Associated SO charges

Forecasted revenue resulting from associated SO charges levied by National Grid is deducted from the maximum NTS SO allowed revenue total.

Table 2

Terms used for Final notification of charges	October Value (£m)	Feb Ind Value (£m)
Balancing Neutrality Charge (RNC _t)	23.4	16.7
Capacity Neutrality Components (revenues)	A	A
Adjustment for Neutrality (SOROC_t)	23.4+A	16.7+A

Please refer to our Charging Methodology Statement for further information regarding any terms mentioned within this section of the document.

Adjustments for the sale of incremental capacity

Revenue from the sale of incremental entry (SOEIRC_t) and exit (SOExRF_t) capacity is deducted as this is recovered through the relevant capacity charges. For entry the amount equates to revenue resulting from any incremental capacity allocated through the Entry Capacity auctions held ahead of the gas day and this capacity may either be obligated or non-obligated. The revenue is effectively used to net off the incremental

SO allowed costs included in $SOMR_t$. For exit the adjustment is equal to the forecasted revenue collected in the formula year in relation to Exit Charges for firm exit capacity above the baseline.

Table 3

Terms used for Final notification of charges	October Value (£m)	Feb Ind Value (£m)
Entry Capacity Investment Revenue ($SORCAP_t$)	48.3	48.3
Exit Capacity Investment Revenue ($SOEXRF_t$)	8.6	8.6
Adjustment for the sale of incremental capacity	56.9	56.9

Adjustments for other Charges

A proportion of the SO costs are recovered through the St Fergus Compression Charge, Shorthaul Commodity Charge and Capacity Neutrality Buyback revenue. The St Fergus Compression Charge recovers the compression costs associated with the St. Fergus TOM sub-terminal directly from those shippers at that terminal due to local pressure tier arrangements. The optional Shorthaul Commodity Charge is offered as a replacement to the TO and SO Commodity Charges. In all cases, the forecast revenue recovered from these charges is deducted from $SOMR_t$.

Table 4

Terms used for Final notification of charges	October Value (£m)	Feb Ind Value (£m)
St Fergus Compression Revenue	11.4	10.4
Shorthaul Revenue	7.9	10.2
Capacity Neutrality Buyback Costs recovered through Capacity Neutrality	2.8	2.8
Capacity Neutrality Components (revenues credited via capacity neutrality)*	-A*	-A*
Adjustment for other Commodity Charges	22.1-A	23.4-A

*This cancels out the figure in Table 2 and therefore has no impact on the SO Commodity charge

The target revenue to be recovered through the SO Commodity Charge is as follows:

Table 5

Terms used for Final notification of charges	October Value (£m)	Feb Ind Value (£m)
Maximum Allowed NTSO revenue ($SOMR_t$)	465.4	409.8
.. less associated SO charges	23.4	16.7
.. less sales of incremental capacity	56.9	56.9
.. less other charges	22.1	23.4
Remainder of RCOM i.e. revenue to be collected through SO Commodity Charge	363.1	312.9

The figure changes as National Grid’s view of the above costs and revenue change. Table 6 details how the target revenue to be collected through the SO Commodity Charge has varied during the formula year.

Table 6

Target SO Commodity Charge Revenue in relevant year (£m)			
Prices to apply from October		Prices to apply from February	
Indicative	Final	Indicative	Final
341.7	363.1	312.9	

Step 3: Determining the volumes that attract the SO Commodity Charge

The volumes that attract the SO Commodity Charge are those forecast entry and exit flows excluding storage flows, net of shorthaul volumes i.e. the volumes that shippers have nominated to attract the Shorthaul Commodity Charge. Shippers can nominate to go to Shorthaul at any time throughout the year.

Table 7 shows the volumes used for the prices set for the formula year.

Table 7

Volumes used for setting SO Commodity Charge in relevant year (GWh)			
Prices to apply from October <i>(October to March Volumes)</i>		Prices to apply from February <i>(February to March Volumes)</i>	
Indicative	Final	Indicative	Final
1,055,994	1,153,207	390,737	

The flow data is updated as part of the demand forecasts published in mid-May. Therefore, shippers may observe different flow assumptions for the final notice of the October price change.

Step 4: Calculation of the SO Commodity Charge rate

The SO Commodity Charge is collected from non-storage entry and exit flows excluding shorthaul flows, therefore to calculate the charge rate to apply from April the following formula is used:

$$\frac{\text{Forecast revenue from SO Commodity Charge (£m)}}{\text{Forecast Flows (GWh)}} \times 100 = 0.0196 \text{ p/kWh}$$

Mid-year updates to the SO Commodity Charge

The commercial framework allows the SO Commodity Charge to be revised in October. Further updates are permitted in exceptional circumstances.

When making a mid-year price update, the actual revenue collected during the year to date is deducted from the revised forecast annual revenue, and the remaining flows for the year considered.

For example, to update prices in October the following formula is applied:

$$\frac{\text{Forecast revenue from SO Commodity Charge - Revenue Apr to Sep (£m)}}{\text{Forecast Flows between Oct and Mar (GWh)}} \times 100$$

Forecast revenue recovery through SO Commodity Charge

Table 8 shows the forecast monthly flows that will attract the SO Commodity Charge and the expected revenue from this charge. Data shown in red is based on actuals, other data is forecast.

Table 8

Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10
£144,185,341					

Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11
144,662 GWh	184,643 GWh	211,634 GWh	221,531 GWh	197,645 GWh	193,092 GWh
0.0192 p/kWh	0.0192 p/kWh	0.0192 p/kWh	0.0192 p/kWh	0.0057 p/kWh	0.0057 p/kWh
£27,775,038	£35,451,495	£40,633,709	£42,533,959	£11,265,782	£11,006,224

Charges are always set to recover the exact amount of allowed revenue for the formula year, however, as costs and volumes are not fixed and are subject to variability, any forecast/actual difference between allowed revenue and actual revenue feeds through into the following formula year (with the appropriate interest adjustments made). This is through the NTS SO revenue adjustment term SOK_t which applies in that formula year.

PART B: CHARGING TIMETABLE & FURTHER INFORMATION

Charging timetable

Charge changes are published by the following dates throughout the year:

Date (by)	Notification of...
1 November	Indicative charges to apply from following 1 April
31 January	Final charges to apply from following 1 April
1 May	Indicative charges to apply from following 1 October
31 July	Final charges to apply from following 1 October
1 November	Indicative charges to apply from 1 February
30 November	Final Charges to apply from 1 February

Please note the timetable above includes the timetable for the 3rd Price Change. The timetable therefore does not reflect a typical charging year.

Notices of the updates will be posted on National Grid's industry website and on the Joint Office's website. The updates will also be notified via the Joint Office's email notification service.

Further information

If you require further details about any of the information contained within this document or have any comments on how this document might be improved please contact our UK Transmission Charging and Revenue team, on 01926 654633.