

NTS System Operator Incentive Performance to date

1.0 Introduction

1.1 The present NTS SO incentive regime was introduced with effect from April 2002 following the acceptance by National Grid NTS plc¹ of revised GT Licence obligations in September 2002. This Appendix provides an overview of performance against each of the NTS SO external incentive schemes applicable between 2002/03 and 2004/05:

- Entry Capacity Investment
- Entry Capacity Buy-back
- Exit Capacity Investment
- System Reserve – Gas Cost
- System Reserve – System Balancing
- Residual Gas Balancing

1.2 Incentivisation of Residual Gas Balancing and Entry Capacity Buy-back activities began in October 2001. These arrangements were established by the Network Code, but moved into the GT Licence with effect from April 2002. The introduction of more wide ranging incentives in 2002 led to a number of internal reviews of operating practice and revised procedures have been introduced in a number of areas in an attempt to improve performance under the incentive structure.

2.0 Performance to Date

2.1 Tables 1 to 3 below summarise the National Grid NTS SO incentive performance for the years 2002/03, 2003/04 and 2004/05 respectively. The background to the incentive performance for each scheme is then detailed in the following sections.

¹ National Grid Gas Transmission was previously known as Transco plc until the company name was changed on 10th October 2005
National Grid is a trading name for
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Table 1 - SO Incentive Performance in 2002/03

Incentive Scheme	Target Cost	Net Cost	Retained Performance Share	Shipper Performance Share
	£m	£m	£m	£m
Entry Capacity Investment	n/a	0.0	0.0	0.0
Entry Capacity Buy-back	35.0	13.2	10.9	10.9
Exit Capacity Investment	62.6	51.2	5.4	6.1
System Reserve - Gas Cost	58.5	62.4	-0.8	-3.1
System Reserve - System Balancing	16.8	15.9	0.9	0.0
Residual Gas Balancing	n/a	n/a	0.9	n/a
Total			17.3	13.9

Table 2 - SO Incentive Performance in 2003/04

Incentive Scheme	Target Cost	Net Cost	Retained Performance Share	Shipper Performance Share
	£m	£m	£m	£m
Entry Capacity Investment	n/a	0.0	0.0	0.0
Entry Capacity Buy-back	10.0 - 20.0	-2.0	6.0	6.0
Exit Capacity Investment	61.3	43.4	10.9	7.0
System Reserve - Gas Cost	61.9	44.4	4.0	13.5
System Reserve - System Balancing	16.6	17.8	-1.2	0.0
Residual Gas Balancing	n/a	n/a	1.5	n/a
Total			21.2	26.5

Table 3 - SO Incentive Performance in 2004/05

Incentive Scheme	Target Cost	Net Cost	Retained Performance Share	Shipper Performance Share
	£m	£m	£m	£m
Entry Capacity Investment	n/a	0.0	0.0	0.0
Entry Capacity Buy-back	18.0	-13.9	16.0	16.0
Exit Capacity Investment	61.7	44.9	6.4	10.4
System Reserve - Gas Cost	82.6	65.6	4.0	13.0
System Reserve - System Balancing	16.6	16.3	0.3	0.0
Residual Gas Balancing	n/a	n/a	1.3	n/a
Total			28.0	39.4

2.2 Entry Capacity Investment

2.2.1 Purpose

The purpose of the Entry Capacity Investment incentive scheme is to incentivise National Grid NTS to respond to market signals for capacity demanded above the Initial NTS SO baseline level at any particular entry point.

2.2.2 Parameters

Entry Capacity Investment	Incentive Parameters					Performance		
	Target	Benefit Cap	Benefit Collar	Upside Sharing Factor	Downside Sharing Factor	Net Cost	Retained Benefit	Shipper Benefit
2002/03	n/a	12.25%	5.25%	n/a	n/a	-	-	-
2003/04	n/a	12.25%	5.25%	n/a	n/a	-	-	-
2004/05	n/a	12.25%	5.25%	n/a	n/a	-	-	-

The incentive scheme allows National Grid NTS to retain revenues from the Entry Capacity auctions in the range 5.25% to 12.25% return on the Cost Allowance (Unit Cost Allowance as defined in the Licence * Capacity released).

2.2.3 Performance in the period

This scheme is triggered in the formula year to which the release of incremental obligated entry capacity rights apply, so as the provision of incremental capacity usually takes a 3 year lead time (and the first auctions which allowed such demand to be signalled only commenced in January 2003), this incentive scheme has not been applicable for the period 2002/03 to 2004/05. However for later years within this current formula period this incentive will become applicable.

2.3 Entry Capacity Buy-Back

2.3.1 Purpose

Under the price control regime established within the NTS licence, National Grid NTS is funded to provide a series of baseline output measures of entry capacity for each system entry point. The baseline output measures are based on the maximum physical capability at each system entry point and are referred to as National Grid NTS's transmission asset owner (TO) baseline output measures. National Grid NTS is obliged to offer 90 per cent of these output measures for

sale as system operator (SO) level entry capacity rights – this is referred to as the “Initial NTS SO baseline capacity.” Shippers can purchase NTS system entry capacity up to the level of gas they wish to flow in a variety of auctions run by National Grid NTS.

The capability of the NTS to accept gas flows into the system can change throughout the year. This can be due to a number of factors such as maintenance outages (planned in the summer when gas demand is low), unplanned outages to pipelines and other assets such as compressors and the pattern of supplies and demands.

Where National Grid NTS is unable to deliver the entry capacity it has sold and which shippers are intending to use, National Grid NTS is required to buy that entry capacity back from shippers at the market price. Ofgem incentivises National Grid NTS to reduce the costs associated with buying back firm entry capacity that it is unable to make available on the day.

The performance measure under the scheme is calculated as the capacity constraint management costs that National Grid NTS incurs in buying back entry capacity less the revenue that we earn from some types of entry capacity products including on the day sales of firm capacity, interruptible NTS entry capacity, sales of non-obligated incremental firm entry capacity, locational sell actions, physical renomination charges and also revenue from overrun charges.

Ofgem considered that there was potential substitutability between locational gas balancing actions taken on the On the day Commodity Market (OCM) to remedy localised network constraints and buying back entry capacity rights (which may initiate increases in flows at other entry points). From April 2004 the costs/revenues from locational gas balancing actions were included in the entry capacity buy-back performance measure.

2.3.2 Parameters

Entry Capacity Buybacks	Incentive Parameters					Performance		
	Target	Benefit Cap	Benefit Collar	Upside Sharing Factor	Downside Sharing Factor	Net Cost	Retained Benefit	Shipper Benefit
2002/03	£35.0m	£30.0m	(£12.5m)	50%	35%	£13.2m	£10.9m	£10.9m
2003/04	£10.0m to £20.0m	£30.0m	(£12.5m)	50%	35%	(£2.0m)	£6.0m	£6.0m
2004/05	£18.0m	£30.0m	(£12.5m)	50%	35%	(£13.9m)	£16.0m	£16.0m

2.3.3 Performance in the period

Within each formula year, outturn costs have been below the target level. However, given that the target levels were set to be reflective of costs that were likely if Seasonal Normal Demand (SND) levels were experienced, this out performance was largely driven by the warmer weather conditions which resulted in lower than expected supply levels.

2002/03

The introduction of the revised Entry Capacity Buy-back incentive scheme coincided with other changes to the entry capacity regime. The most notable change was the obligation in the GT Licence to offer for sale a specified minimum quantity of entry capacity rights throughout the year – the initial NTS SO baseline entry capacity. These changes, introduced around the time of the commencement of the incentive framework, meant that there was little practical experience available of the effect of this level of potential sales when the target buy-back costs were set. Considerable uncertainty therefore existed over the potential level of exposure, presenting a substantial challenge for National Grid NTS.

To meet this challenge, investment in additional modelling expertise was made with a view to better understanding the key cost drivers, and subsequently in management action to reduce the risk exposure.

The analysis confirmed the expectation that buy-back costs are highly unstable, and highly dependent on market conditions. An extensive risk management programme was undertaken in the form of forwards and options tenders, to limit the exposure to spot buy-back prices. In addition, operational practices were carefully scrutinised with a view to optimising the physical capability of the network to meet demands for entry capacity. One particularly significant review was that of maintenance practices which highlighted potential areas where changes to working arrangements could reduce or negate the risk of a buy-back occurring. These changes included a fundamental review of the nature, type and volume of planned routine maintenance, 24 hour working where the reduction in buy-back risk justified the additional costs, and where a compressor station contains more than one unit, and provided it is safe to do so, only taking one unit out of service leaving the remaining units available to be run.

Forward and option contracts were used as a buy-back risk management tool for the first time in 2002/03. As a new product, it was important that the industry was clear as to their structure and purpose. A number of briefings were carried out, for example at the Operational Forum, and comprehensive documentation was issued to all users so that maximum participation could be encouraged.

Four forward tenders were conducted between April 2002 and June 2002 and 11 option tenders between April 2002 and February 2003. These tenders were based on a standard forward and option product during 2002/03.

These activities helped to reduce the buyback requirement on days where entry capacity had to be bought back, the number of days on which buy-backs had to occur and the average price paid, with reduced exposure to spot prices. This operational strategy approach also mitigated against the potential requirement for consecutive days of buy-back.

A requirement to buy-back capacity occurred on 33 days during 2002/03. On these days the procured options were exercised where possible and then, if necessary, the prompt market was used to fulfil the obligations with regard to the buy-back quantity.

These initiatives combined to deliver an outcome in 2002/03 below the target performance and resulted in the retained out-performance share of £10.9m, with shippers also benefiting to the same extent, which will ultimately be reflected in lower consumer bills than would otherwise be the case.

2003/04

In 2003/04 total buy-back costs reduced primarily due to the following drivers:

- Continuation of the initiatives put in place in 2002/03;
- Buybacks were required on only eight days.
- Greater use was made of options over forwards, providing efficiencies where the necessity of a firm requirement was less than certain. This included an alternative option structure which was introduced for the summer of 2003 that allowed exercise over a range of months rather than the single month contract that was introduced in 2002/03;
- Lower supplies were seen at key points during the year (primarily in the north) driven in part by a number of offshore failures.
- Reinforcement of the northern part of the system gave rise to incremental improvement in the delivery of capacity.

These drivers gave rise to a net incentive revenue of £2m, giving a £12m saving against the target, shared equally between National Grid NTS and the Shippers.

2004/05

The performance in 2004/05 was dominated by a £13.4m revenue stream relating to the sale and release of Non-Obligated Incremental Entry Capacity. Whilst no costs were actually incurred, the release of this extra capacity did increase National Grid NTS's risk exposure. A further £4.4m of Non-Obligated Incremental Entry Capacity auction revenue was secured for 2005/06, the risk for which National Grid NTS still faces, but there are no expectations for further material revenues from this mechanism.

This, twinned with improvements from the initiatives mentioned above and fortuitously lower than expected northern flows due to offshore maintenance (only four days required buybacks), led to a net revenue position against this incentive, delivering a retained share of the performance of £16m, with an equivalent sum shared back to the Shippers.

To date, the winters during the current price control period have been mild (e.g. 2004/05 winter was 6th warmest on record and highest throughput was 418mcm, well below peak 1:20 demand conditions). Therefore, corresponding beach supplies have generally been well below expected levels (declining fields has obviously also impacted on this) which has reduced the potential for constraints at the entry points. In addition, high flows at supply points have generally not been sustained over long periods (mainly due to changes in demand and also an increase in level of unplanned offshore outages). However, National Grid NTS faced the risk in each year between 2002/03 and 2004/05 that throughput was going to be at least at SND (Seasonal Normal Demand) and associated supply levels would increase the potential for further capacity constraint management costs.

Going forward the gas market will change dramatically as UKCS production drops and imports rise hugely, which will increase the uncertainty of supply patterns and the level of risk to National Grid NTS of capacity constraints.

2.4 Exit Capacity Investment

2.4.1 Purpose

The intention of the exit arrangements (which were in place until the review in 2005 due to the divestment of four distribution networks) was to provide National Grid NTS with incentives to manage exit capacity constraints and to consider efficiently trading off the costs of pipeline investment against the costs of interruption and use of constrained LNG (CLNG). Some transitional arrangements were put in place, which were intended to apply for two years from 1 April 2002 and were expected to be followed by longer term

arrangements (universal firm registration of exit capacity on the NTS) by 1 April 2004. Ofgem wanted the rules regarding the offtake of gas from the system to be equitable between sites with National Grid NTS paying for the right to restrict exit capacity at the times when they needed it rather than on an annual basis as with interruption. This process also allowed for counterparties to price the restriction on an economic basis rather than a flat rebate against a fixed cost of exit capacity.

Under these original transitional arrangements National Grid NTS was set a target cost based on the expectation of the costs it will be deemed to have incurred in procuring interruption from customers, against which a deemed level of incurred costs (charges foregone – ‘interruptible discount’) and in the event of interruption at a site in excess of 15 days in a year, actual costs were compared. A further aspect of the exit scheme incentivises National Grid NTS to invest efficiently to meet its customer requirements by allowing additional revenues associated with exceeding baseline levels.

National Grid NTS may choose to use CLNG to meet expected demand in some parts of the system as a cheaper alternative to system investment. At constrained LNG sites National Grid NTS restricts the use of the storage service by users to maintain monitor levels (to ensure storage service if required) and in return shippers pay discounted storage costs. Incentive performance is measured by comparing the value of the discount for constraining the LNG service compared to a target cost. Due to National Grid NTS’s ownership of the constrained LNG storage facilities (through National Grid LNG) the scheme is separated out from the Exit investment scheme with no caps and collars and 100% sharing factors.

2.4.2 Parameters

Exit Capacity Investment	Incentive Parameters					Performance		
	Target	Benefit Cap	Benefit Collar	Upside Sharing Factor	Downside Sharing Factor	Net Cost	Retained Benefit	Shipper Benefit
2002/03	£56.7m	£10.0m	(£2.5m)	50%	25%	£44.6m	£6.1m	£6.1m
2003/04	£55.1m	£10.0m	(£2.5m)	50%	25%	£41.1m	£7.0m	£7.0m
2004/05	£55.1m	£1.0m	(£1.0m)	50%	25%	£43.7m	£1.0m	£10.4m

Constrained LNG	Incentive Parameters					Performance		
	Target	Benefit Cap	Benefit Collar	Upside Sharing Factor	Downside Sharing Factor	Net Cost	Retained Benefit	Shipper Benefit
2002/03	£5.9m	unlimited	unlimited	100%	100%	£6.6m	(£0.7m)	-
2003/04	£6.2m	unlimited	unlimited	100%	100%	£2.3m	£3.9m	-
2004/05	£6.6m	unlimited	unlimited	100%	100%	£1.2m	£5.4m	-

2.4.3 Performance in the period

2002/03

Winter 2002/03 was considerably warmer than normal, being a 1 in 10 warm winter under the standard measurement, resulting in demand levels being below those which would have been expected at seasonal normal conditions. As a result, the level of interruption on both the NTS and LDZ systems was low. In addition, reviews of operating strategy had been undertaken prior to the winter to identify innovative ways of mitigating some of the risks at the likely constraint points should constraints apply.

The cost of payments in respect of sites interrupted on more than fifteen days was £0.1m, below the target level of £2.8m. However, a significant number of sites within the LDZs were close to being interrupted for more than 15 days even in a 1 in 10 warm winter.

The cost of payments to shippers in respect of the constraining of LNG services to provide transmission support was £6.6m, in excess of the target of £5.9m. The under-performance on this element of the exit capacity investment incentive was borne wholly by National Grid NTS.

The level of exit capacity provided was higher than that set in total by the exit capacity output measures for 2002/03. This was primarily due to the level of

interruptible exit capacity booked by Shippers being significantly above the level assumed by Ofgem when the output measures were set. This contributed to out-performance under the exit incentive, with a net cost of £51.2m against a target of £62.6m. National Grid NTS's share of the out-performance was £5.4m whereas the benefit for shippers was £6.1m.

2003/04

Following investment in the system, the requirement for the constrained LNG service reduced in 03/04, giving rise to costs of £2.2m. In conjunction with a higher target of £6.2m this resulted in out-performance of £4m.

As in the previous year, the level of exit capacity provided was higher than that set in total by the exit capacity output measures for 2003/04.

This contributed to out-performance under the exit incentive, with a net cost of £43.4m against a target of £61.3m. National Grid NTS's share of the out-performance was £10.9m whereas the benefit for shippers was £7.0m.

2004/05

Further investment in the system lead to the requirement for only a single LNG site to be declared as constrained, and against a target of £6.6m National Grid NTS achieved out-performance of £5m.

Again the level of exit capacity provided was higher than that set in total by the exit capacity output measures.

This contributed to out-performance under the exit incentive, with a net cost of £44.9m against a target of £61.7m. However, as the performance cap for the Exit Charges Foregone, Growth and Interruption cost element was reduced in 2004/05 from £10m to £1m, National Grid NTS's share of the total out-performance was limited to £6.4m, with £10.4m being passed to Shippers.

2.5 System Reserve – Gas Cost

2.5.1 Purpose

The System Reserve - Gas Cost incentive relates to NTS Shrinkage performance. NTS Shrinkage is that gas (and electricity) which is used (compressor fuel) or unaccounted for in the operation of the NTS. National Grid NTS undertakes the role of NTS Shrinkage Provider on behalf of the community and procures gas (and electricity) for this purpose. There are four components of NTS Shrinkage:

- Own Use Gas (OUG) – that gas used for compression
- Unaccounted For Gas (UAG) – that gas which remains after taking into account all measured inputs and outputs from the system, own use gas consumption, CV Shrinkage and the daily change in NTS linepack.
- Unbilled Energy (CV Shrinkage) – that energy which is unbilled due to CV capping under application of the Gas (Calculation of Thermal Energy) Regulations 1996 and subsequently amended in 1997.
- Electricity costs for electric-driven compressors

Prospective volumes were identified at the time of the last price control review and are specified in National Grid NTS’s Licence, with the cost target established by applying a single assumed price. The allowed volumes were set in 2002 for a five year period and derived by applying a set of consistent business assumptions and modelling using historic levels of each component taking account of projections of future supplies and demand. The allowed price was initially set in the Licence for 2002/03 and 2003/04. From 2004/05 onwards, the price is determined during the Gas Cost Reference Price (GCRP) period where forward quarterly NBP gas prices over the reference price period are used to calculate the allowed (reference) price. The review in April 2004 changed the reference price period to be the whole of the previous formula year.

2.5.2 Parameters

System Balancing - Gas Cost	Incentive Parameters					Performance		
	Target	Benefit Cap	Benefit Collar	Upside Sharing Factor	Downside Sharing Factor	Net Cost	Retained Benefit	Shipper Benefit
2002/03	£58.5m	£4.0m	(£3.0m)	25%	20%	£62.4m	(£0.8m)	(£3.1m)
2003/04	£61.9m	£4.0m	(£3.0m)	25%	20%	£44.4m	£4.0m	£13.5m
2004/05	£82.6m	£4.0m	(£3.0m)	25%	20%	£65.6m	£4.0m	£13.0m

2.5.3 Performance in the period

2002/03

Cost performance in 2002/03 was £3.9m above the target, with National Grid NTS’s share of the under-performance being £0.8m.

The major volume element of the inferior performance was related to OUG that is the gas used for compressor fuel, which is driven by system throughput and supply/demand patterns. This performance reflects demands placed on the network and the need to use the compressor fleet more extensively than anticipated due to the supply/demand patterns experienced. The main reason

for this was the large quantities of gas being introduced to the system at the northern terminals that had to be transported to the demand centres in the south, including interconnector exports at Bacton.

Given the scale of the north/south transportation issue a number of operational initiatives have been undertaken to ensure performance of plant, specifically compression, is as efficient as practicable. This has included reviewing compressor operational envelopes and operating characteristics of specific plant.

Various initiatives have been introduced to help manage the volume risk within the incentive, primarily in the controllable area of CV Shrinkage and UAG.

CV Shrinkage volumes are controlled by the use of operational strategies developed using transient network analysis modelling. This modelling takes account of the latest supply forecasts and allows the System Operator to configure the system to reduce the CV Shrinkage volume risk where possible and efficient to do so.

During 2002 the forecast for the UAG component was well above the target volumes for 2002/03. As a result, a task force was established to determine the causes of the increased projected UAG volumes for the year. The outcome of this initiative was the identification, correction, and reconciliation of a number of metering errors, the counter party to which had been the UAG component of NTS Shrinkage.

In addition a number of other initiatives have been introduced including the development of a Commercial Technical Competency (CTC) for Shrinkage and the development and implementation of technical training programmes in metering and analytical tools. The intention of these initiatives was to identify meter errors earlier and hence reduce UAG volumes. A programme of raising shrinkage awareness across the business, data quality process improvements and the development of enhanced metering standards has also been undertaken.

In relation to price, the licence target was fixed based upon prices reported at the time of negotiating the licence parameters in November 2001. Whilst National Grid NTS's Procurement Guidelines enabled it to purchase gas from a range of providers, contractual limitations prevented this until October 2002, some six months into the formula year. From that point in time, National Grid NTS took full advantage of the open market, although prices had risen significantly from those used to determine the target price. This divergence coupled with the increased volumes was largely outside National Grid NTS's control.

2003/04

Performance in 2003/04 improved to a capped performance of £4m, with a saving over target of £13.5m returned to shippers. Primary drivers for this improved performance were good trading performance and reduced UAG volumes resulting from the initiatives implemented in 2002/03 and a period of negative UAG experienced. These improvements were partially offset by OUG volumes again being higher than target.

2004/05

Again, performance was capped at £4m with a further £13m saving passed on to the shippers. The period of negativity seen in UAG during 2003/04 continued for the majority of the year, and this combined with another good trading performance compared to the incentive target lead to a cost of £65.6m compared to the calculated target of £82.6m. It is notable that the gas price rose dramatically during this period, impacting on the Gas Cost Reference Price for 2005/06.

2.6 System Reserve – System Balancing

2.6.1 Purpose

Operating Margins gas is required by National Grid NTS to satisfy its safety case where gas reserves, held in storage, are used to provide within-day support to maintain system pressures while other remedial actions are taken to address specific issues. These issues include significant changes in supply/demand patterns, offshore supply failures, transportation plant failures and to cover the orderly rundown of the transmission system in the event of a network emergency. National Grid NTS is incentivised to minimise the storage service costs (space, deliverability, injection, withdrawal, overrun costs), whilst the costs of purchasing and selling gas in storage for system reserve are recovered from shippers through network code neutrality arrangements.

2.6.2 Parameters

System Balancing - System Reserve	Incentive Parameters					Performance		
	Target	Benefit Cap	Benefit Collar	Upside Sharing Factor	Downside Sharing Factor	Net Cost	Retained Benefit	Shipper Benefit
2002/03	£16.8m	unlimited	unlimited	100%	100%	£15.9m	£0.9m	-
2003/04	£16.6m	unlimited	unlimited	100%	100%	£17.8m	(£1.2m)	-
2004/05	£16.6m	unlimited	unlimited	100%	100%	£16.3m	£0.3m	-

2.6.3 Performance in the period

There is relatively little opportunity for National Grid NTS to affect the costs of Operating Margins. The vast majority of the service is booked at LNG sites at a regulated price set within National Grid NTS's Licence. The volume requirements are driven by security considerations based around offshore supply failure, likely failure rates of plant and equipment and the need to secure the system whilst other balancing tools take effect.

Costs are fairly well known at the start of the year as the major service provider prices are published. The uncertainty on the annual costs is centred on usage, primarily in the winter period, where additional injection costs would be incurred.

No Operating Margins gas has been used since the incentive schemes were implemented.

2002/03

The 2002/03 outturn costs were £15.9m against a target of £16.8m.

2003/04

Performance in 2003/04 was a cost of £17.8m against a target of £16.6m. This £1.2m underperformance was borne wholly by National Grid NTS. The major contributory factor for this underperformance was the requirement to procure and hold stock within the Isle Of Grain LNG facility to cover the Operating Margins requirement for Winter 2004/05 as injection capability during summer 2004 period was not felt to be sufficient, due to importation project works.

2004/05

Total spend under the System Balancing – System Reserve incentive in 2004/05 was £16.3m against the target of £16.6m, giving a £0.3m benefit.

2.7 Residual Gas Balancing

2.7.1 Purpose

Shippers are incentivised, via cash-out arrangements to ensure that the volume of gas that they enter onto the system matches the volume of gas that they take off from the system on a daily basis. In aggregate, however, shippers do not always maintain a balance throughout the day, and as Residual Gas Balancer it falls to National Grid NTS to buy and sell gas on the OCM to keep the system pressures within operational limits. The costs associated with the residual

balancing function are borne by customers and National Grid NTS is incentivised to minimise the costs that it incurs.

This incentive is split into two parts relating to:

- **Daily price incentive**
- **Daily linepack incentive**

Daily price incentive measure: The daily price incentive measure, relates to National Grid NTS's management of the price it purchases or sells gas in order to fulfil its role as residual balancer.

On a daily basis, National Grid NTS, as residual balancer, may have to take buy or sell actions in order to balance the system. National Grid NTS is incentivised to keep trades close to SAP (System Average Price). The daily balancing price performance measure takes the highest market offer and then subtracts the lowest market offer, and then divides it by SAP.

The cap of £5,000 is achieved when the daily price incentive measure is 0% (no difference between National Grid NTS' highest and lowest trades or no National Grid NTS trades) and the collar of -£30,000 is reached when the daily price incentive measure is 85% (National Grid NTS price spread is 85% away from SAP). The price incentive reference measure (i.e. target for the scheme) is set at 10% for each day of the formula year.

Daily linepack incentive: NTS linepack is the volume of gas within the NTS as calculated by National Grid NTS in accordance with the methodology proposed by the NTS and approved by the Authority.

National Grid NTS is also subject to an incentive around daily linepack variation. The performance measure for this incentive is calculated as the difference between the closing and opening linepack for any given day. The cap of £5,000 is realised if the daily incentive measure is 0 mcm (i.e. no change between opening and closing linepack) and the collar of -£30,000 is realised when the daily linepack incentive measure is 20.4 mcm.

National Grid NTS's ability to affect prices in the market place is limited as is its control on linepack movement caused by shippers taking an imbalance position on any day.

The incentive scheme has not changed format or parameters since 2002/03.

2.7.2 Parameters

Residual Gas Balancing	Incentive Parameters					Performance		
	Target	Benefit Cap	Benefit Collar	Upside Sharing Factor	Downside Sharing Factor	Net Cost	Retained Benefit	Shipper Benefit
2002/03	n/a	£3.5m	£3.5m	n/a	n/a	n/a	£0.9m	-
2003/04	n/a	£3.5m	£3.5m	n/a	n/a	n/a	£1.5m	-
2004/05	n/a	£3.5m	£3.5m	n/a	n/a	n/a	£1.3m	-

2.7.3 Performance in the period

2002/03

The 2002/03 outcome for this incentive was a benefit of £0.9m, which consisted of out-performance of £1.2m on the price element and under-performance of £0.3m on the linepack element.

Consistent with the price incentive, National Grid NTS endeavours to take any necessary balancing actions at prices as close as possible to the market price. However, where significant potential imbalances exist on any day it may be necessary for National Grid NTS to trade at relatively high or low prices in order to secure the system.

Similarly National Grid NTS attempts to maintain linepack in line with the incentive target, but linepack variation is a key factor which secures continued safe network operation, and daily variations are a function of a wide range of influences. This means that to a significant extent the variation in linepack is a by-product of efficient system operation rather than being driven by the incentive mechanism.

2003/04

Following the implementation of initiatives for the control of linepack, incentive performance increased to £1.5m (£1.3m gained from the price element, with the remainder from linepack).

2004/05

Performance in 2004/05 was in line with that of the previous year, with National Grid NTS achieving a positive outcome of £1.3m (again primarily from the price element of the incentive).