



National Grid Gas (NTS) System Operator Incentives

2018/19 Supporting Information

October 2018

nationalgrid

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Introduction

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Introduction to the Gas System Operator Incentives

1. National Grid Gas (National Grid) operates the high-pressure Gas National Transmission System (NTS) in Great Britain. This System Operator (SO) function is subject to Licence¹ obligations and several financial incentive arrangements. These incentive arrangements encourage National Grid to minimise the overall cost of system operation to consumers, to consider environmental impacts and to support the efficient operation of the wholesale gas market.
2. These arrangements are designed to encourage National Grid to deliver outputs which provide benefits to the industry and consumers. These benefits include direct financial benefit from reductions in the costs associated with operating the gas transmission network and other benefits from meeting key performance targets.
3. The various incentive schemes provide a focus on key areas where National Grid can create value for the industry and consumers, allowing National Grid to retain a share of any value created (or to be penalised should targets not be met).

Background

4. This document was produced following feedback received through responses to consultation papers and industry events. This document summarises the Gas SO Incentive Schemes and provides their performance to date.

Incentive Development for RIIO-T1

5. The current incentive arrangements are part of the RIIO-T1 Framework, introduced in 2013, which sets out National Grid's funding arrangements for the RIIO-T1 period from 2013 to 2021.
6. The following table summarises the changes that commenced at the start of RIIO-T1.

¹ The National Grid Gas plc Gas Transporter Licence in respect of the NTS
National Grid | October 2018 | National Grid Gas (NTS) System Operator Incentives

Table 1: Summary of incentive development for TIIO-T1

Incentive	Status
NTS Shrinkage	Incentive scheme retained, set for 8 years
Residual Balancing	Incentive scheme retained, set for 8 years
Day Ahead Demand Forecasting	Incentive scheme retained, set for 8 years
Greenhouse Gas Emissions	Incentive scheme retained. Set for 3 years and then reviewed for 2016/17 (set for 2 years) and for 2018/19 (set for 3 years).
Maintenance	New financial scheme. Set for 3 years and then reviewed for 2016/17 (set for 2 years) and for 2018/19 (set for 3 years).
Demand Forecasting (D-2 to D-5)	New financial scheme Set for 3 years and then reviewed for 2016/17 (set for 2 years) and for 2018/19 (set for 3 years).
Operating Margins	Financial scheme discontinued, replaced with new licence obligations ² <ul style="list-style-type: none"> Requirement for National Grid to procure OM in an economic and efficient manner, to report on its annual procurement and to promote competition in its provision.
Data Publication ³	Financial scheme discontinued, replaced with new licence obligations <ul style="list-style-type: none"> requirement for National Grid to publish key assumptions in development of future energy scenarios, winter & summer outlooks and operational data.
UAG (Unaccounted for Gas)	Continued with no scheme, licence obligation continues <ul style="list-style-type: none"> requirement to continue witnessing meter validations and carry out data centred investigations into the causes of UAG
Entry Capacity and Exit Capacity Constraint Management;	New financial scheme
Transportation Support Services	New financial scheme
Customer and Stakeholder Satisfaction	New financial scheme

² Special Condition 8C: Procurement of Operating Margins

³ Special Condition 8F: Provision of information

Incentive Review

7. Most of the incentive schemes agreed for the RIIO-T1 price control period (2013-2021) were set for an eight-year period but some were set for a shorter time. Where new incentives were introduced or where incentives had been substantially changed, the incentives (known as Shallow Incentives) were set for a shorter period to enable the effectiveness to be assessed before committing to longer timescales. Incentive Reviews took place in 2015 and 2018 for the Maintenance, Demand Forecasting (D-2 to D-5) and Greenhouse Gas Emissions incentives. Changes made to scheme parameters are reflected in the performance tables in Section 3.

Further Information

8. Further information on the Gas SO Incentives is available on our website via this link: <https://www.nationalgridgas.com/about-us/system-operator-incentives>
9. Please contact the team directly at incentives@nationalgrid.com if you have any queries or would like to submit any feedback on this document.

Version Control

Version Number	Date of Publication	Changes Made
1.0	October 2009	First issue
2.0	May 2010	Update for incentive schemes in place from April 2010
2.1	August 2010	Update of 2009/10 incentive scheme performance
3.0	June 2011	Update for incentive schemes in place from April 2011
4.0	April 2012	Update for incentive schemes in place from April 2012
5.0	April 2013	Update for incentive schemes in place from April 2013
5.1	May 2013	Update to include Entry Capacity and Exit Capacity Constraint Management, Transportation Support Services and Customer and Stakeholder Satisfaction schemes in place from April 2013
6.0	October 2014	Update to all sections to include 2013/14 data and graphs
7.0	August 2015	Update to include scheme changes from renegotiation of Incentives from 2015/16 and with performance for 2014/15.
8.0	August 2016	Update with performance from 2015/16 and relevant updates for 2016/17 targets.
9.0	September 2017	Update with performance from 2016/17 and relevant updates for 2017/18 targets.
10.0	October 2018	Update with performance from 2017/18 and relevant updates for 2018/19 targets.



2

Financial Incentive Schemes

Demand Forecasting

Purpose

10. To incentivise improvements in the accuracy of the Demand Forecasts issued by National Grid. These forecasts assist the industry in making efficient physical and commercial decisions to balance supply to, and demand from, the NTS.

Description

11. National Grid publishes national gas demand forecasts over a range of timescales. The day-ahead forecast demand has been subject to an incentive since 2006. In 2013, a new financial scheme introduced the requirement to publish demand forecasts daily from two to five days ahead of the Gas Day.

The D-1 Scheme

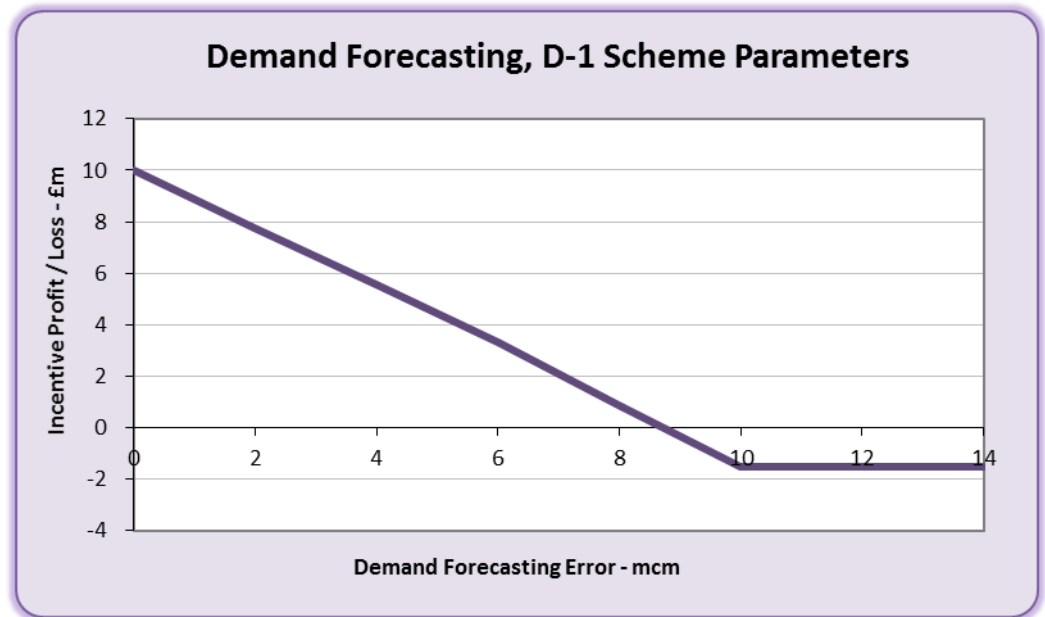
12. National Grid has an incentive target of an annual weighted average absolute forecast error of 8.5mcm. However, there is an adjustment for the level of short-cycle storage injection capability that is designed to consider the unpredictability of demand from short-cycle storage⁴ sites. The storage adjustment is capped at an additional 1mcm and therefore has the potential to revise the D-1 demand forecasting target to 9.5mcm.
13. The daily forecast error is calculated as the difference (in mcm) between the D-1 forecast NTS throughput value and the actual throughput value on the appropriate day of the year. The annual average absolute forecast error is the sum of the daily forecast errors, which themselves are weighted according to the relevant day's demand as a proportion of annual demand in the relevant incentive year. This means that forecasting accurately on high demand days has a greater impact on performance than accurately on lower demand days.
14. If National Grid has a demand forecast error below the target, an incentive payment will be received. However, if the forecast error is greater than the target, an incentive penalty will be applied.

Scheme Parameters

15. The D-1 incentive scheme parameters are summarised in Figure 1 below.

⁴ Details of the storage sites that are utilised in the calculation are published on National Grid's website at: <https://www.nationalgridgas.com/about-us/system-operator-incentives>. The document is located under "Data and documents", click "Demand Forecasting" section and select the latest "Quality of Day Ahead Demand Forecasting Short Cycle Storage Sites" file

Figure 1: Demand Forecasting D-1 scheme parameters



16. An average annual forecast error of 0.85mcm below the base target (7.65mcm) would result in National Grid earning £1.5m, and an error of 0.85mcm above the base target (9.35mcm) would result in National Grid being penalised by the same amount. The latter represents the highest loss that National Grid is exposed to under this incentive. The maximum payment that National Grid can receive is £10m⁵.

The D- 2 to D-5 scheme

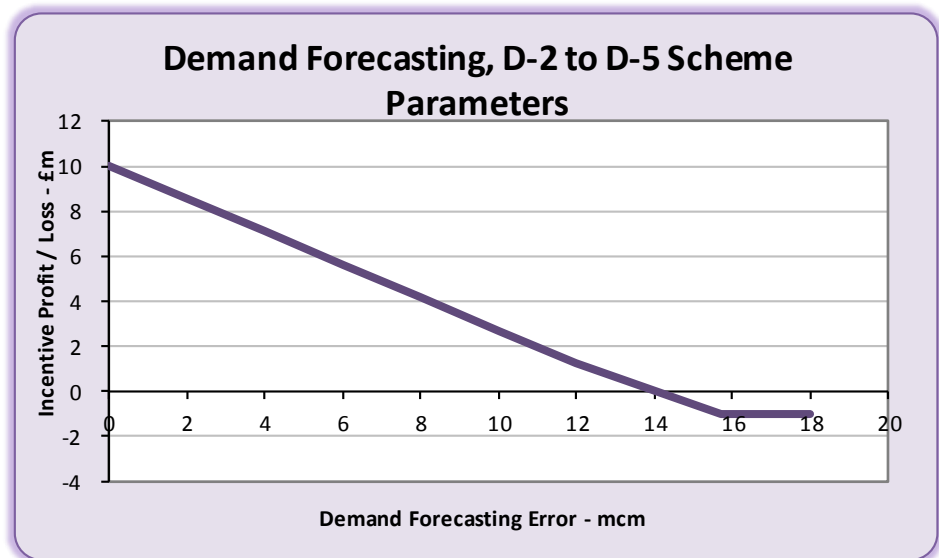
17. National Grid has an incentive target of an annual average absolute forecast error of 13.7mcm. Unlike the D-1 scheme, there is no adjustment for the level of short-cycle storage injection capability.
18. The overall forecast error is equal to the average annual forecast error of the four timed forecasts for the incentive year. The annual error for each timed forecast is derived as the sum of daily forecast errors weighted according to the relevant day's demand as a proportion of annual demand in the relevant incentive year. This means that accuracy on high demand days has a greater impact on performance than accuracy on lower demand days.
19. Like the Day Ahead incentive scheme, if National Grid's forecast error is below the target, an incentive payment will be received. However, if the forecast error is greater than the target then an incentive penalty will be applied.

⁵ A payment of this scale would require forecast error to be between zero and 1mcm (dependant on the target adjustment). A zero forecast error would mean a zero error on every daily forecast in the year.

Scheme Parameters

20. The scheme parameters are summarised in Figure 2 below.

Figure 2: Demand Forecasting D-2 to D-5 scheme parameters



21. An average annual forecast error of 1.37mcm below the target (12.33mcm) would result in National Grid earning £1m, and an error of 1.37mcm in excess of the target (15.07mcm) would result in National Grid being penalised by the same amount. The latter represents the highest loss that National Grid is exposed to under this incentive. The maximum payment that National Grid can receive is £10m at zero forecast error.

Greenhouse Gas Emissions

Purpose

22. To incentivise the consideration of the environment when venting gas from NTS compressors.

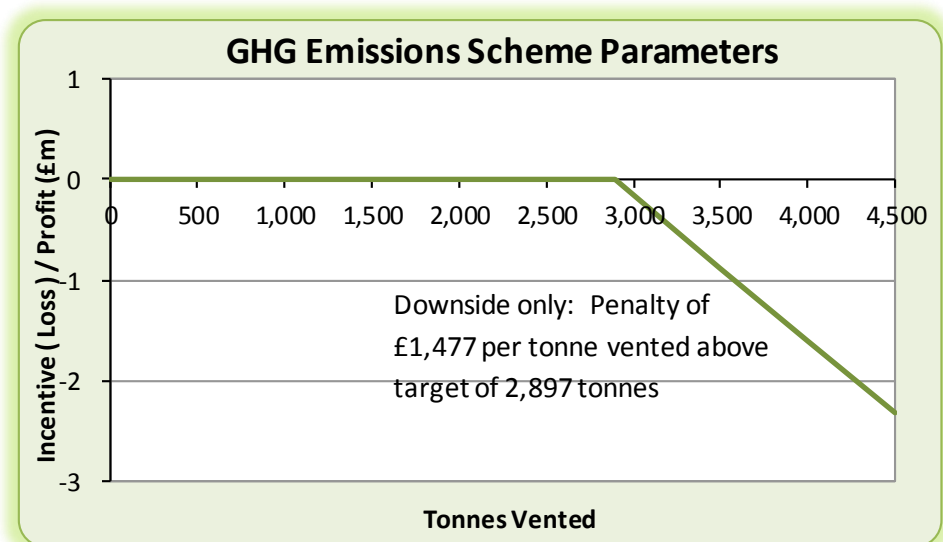
Description

23. Compressors are utilised to increase pressures in parts of the NTS and to move gas from the sources of supply to areas of demand. The need to operate an individual compressor on any given day depends on several factors, including the sources of supply and demand, the prevailing network conditions and the need to accommodate essential maintenance, emission testing and construction plans.
24. The scheme incentivises National Grid to make the trade-off between choosing to depressurise compressor units (venting the gas within them) or to keep units on standby, which incurs costs associated with ancillary electrical equipment (vent fans, oil pumps etc.) and a level of emissions through the shaft seal. The incentive applies to both gas and electrically driven compressors.
25. The amount of natural gas vented from NTS compressors (in tonnes) results from several areas; namely starting, purging or depressurising a compressor or through emissions of gas through compressor shaft seals.
26. The incentive compares actual venting quantities against a target level. For every tonne vented above this target, National Grid is subject to a penalty.
27. The GHG calculation methodology is externally audited on an annual basis.

Scheme Parameters

28. The scheme parameters are summarised in Figure 3 below.

Figure 3: Greenhouse Gas Emissions scheme parameters



29. For 2018/19, the target level is 2,897 tonnes, with a penalty of £1,477⁶ per tonne vented above the target. This is equivalent to £100,000 for approximately every 69 tonnes vented above the target. As a 'downside only' scheme, National Grid does not receive any payment for target outperformance.

⁶ Based upon the Non-Traded Central Carbon Price as published by the Department of Energy and Climate Change and the venting equivalent factor that represents the number of tonnes of CO₂ equivalent.

Residual Balancing

Purpose

30. To incentivise the daily balancing of supply and demand whilst minimising the impact of any actions on market prices.

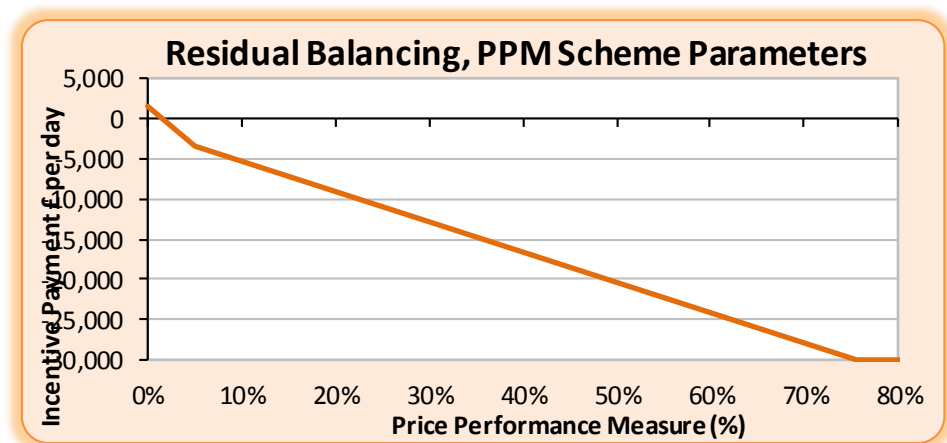
Description

31. The incentive contains two elements; the Price Performance Measure (PPM) and the Linepack Performance Measure (LPM).
32. The Price Performance Measure (PPM) incentivises National Grid to execute any residual balancing trades at prices that are in a small range compared to the System Average Price (SAP) for the day. The PPM is defined as the difference between the highest and lowest prices at which National Grid trades, divided by SAP. The target is a price spread of 1.5% of SAP.
33. The Linepack Performance Measure (LPM) incentivises National Grid to minimise any changes between starting and closing NTS linepack over a Gas Day (i.e. to achieve a balance between the supply and demand on the Gas Day). This is intended to ensure that any system imbalances are resolved on the relevant day, so that the costs of resolving any imbalances are targeted to those responsible for the imbalance. The target is a linepack change of 2.8mcm.

Scheme Parameters

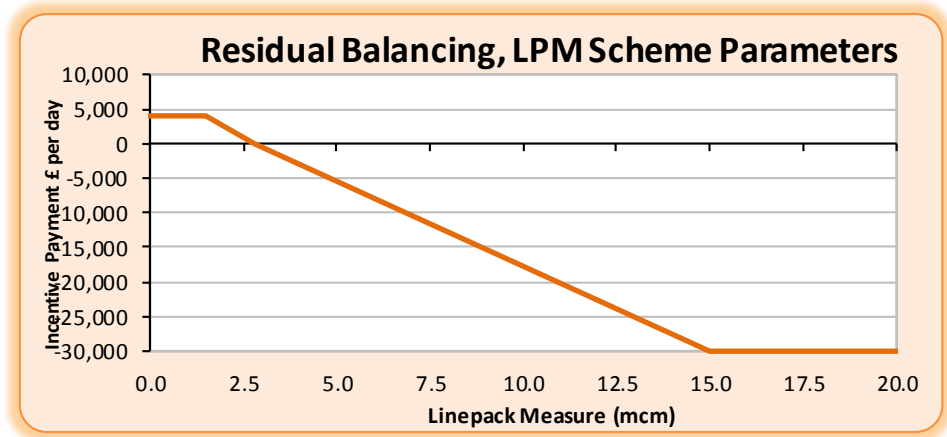
34. The PPM and LPM each have their own incentive structures, which apply to each Gas Day in the incentive year. The scheme parameters are summarised in Figure 4 and Figure 5 below.

Figure 4: Residual Balancing PPM scheme parameters



35. If the PPM is below 1.5% on a given Gas Day then National Grid receives an incentive payment up to a maximum of £1,500. Conversely if the PPM is above 1.5%, then National Grid incurs a penalty up to a maximum of £30,000.

Figure 5: Residual Balancing LPM scheme parameters



36. If the LPM is below 2.8mcm on a given Gas Day, then National Grid receives an incentive payment up to a maximum of £4,000. This maximum applies at 1.5mcm, so there is no incentive for National Grid to balance the system beyond this point. Conversely if the LPM is above 2.8mcm, then National Grid incurs a penalty up to a maximum of £30,000.
37. The sum of all the daily payments for the PPM and LPM under the Residual Balancing incentive are annually capped at £2m and collared at £3.5m.

NTS Shrinkage

Purpose

38. To incentivise an efficient overall cost of shrinkage through efficient system operation and energy procurement.

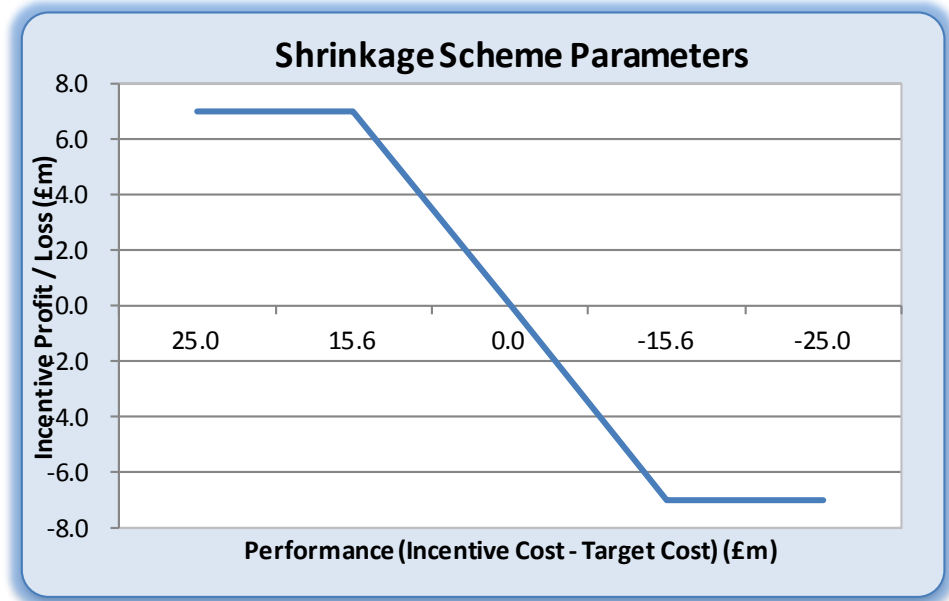
Description

39. NTS Shrinkage covers the gas and electrical energy which is used in operating NTS compressors, and the gas that cannot be accounted for and billed in the measurement and allocation process. The components that comprise NTS Shrinkage are summarised as:
 - Compressor Fuel Use (CFU): The energy used to run compressors to transport gas through the NTS. For gas-driven compressors, this is Own Use Gas (OUG). For electrically-driven compressors, this is Electric Compressor Energy (ECE);
 - Calorific Value (CV) Shrinkage (CVS): The energy which cannot be billed due to the provisions of the Gas (Calculation of Thermal Energy) Regulations 1996 (amended in 1997); and
 - Unaccounted for Gas (UAG): The quantity of gas which remains after considering all measured inputs and outputs from the system, OUG consumption, CVS and the daily change in NTS linepack.
40. The form of the NTS Shrinkage incentive is a bundled cost minimisation incentive across all components of shrinkage, with a target principally derived from an energy procurement cost benchmark.
41. This 'Energy Procurement Target' is derived from a volume forecast and variance (the difference between the forecast and actual volume outturn). This is multiplied by gas and electricity reference prices for forwards procurement (of the forecast volume) and prompt procurement (of the variance volume) to derive a cost target. The volume forecast consists of CFU, CVS and UAG volumes determined in accordance with an NTS Shrinkage Methodology Statement published by National Grid.
42. The overall cost target is also subject to:
 - An adjustment for comparison of outturn CFU and CVS volumes compared to 'efficient' levels;
 - An allowance for the Transmission Network Use of System (TNUOS) charges incurred in respect of electrically driven compressors; and
 - An adjustment for other shrinkage costs, including environmental scheme compliance, electricity supply charges and other energy trading costs.

Scheme Parameters

43. The incentive scheme parameters are summarised in Figure 6 below.

Figure 6: Residual Balancing scheme parameters



44. If total spend against the incentive is below the target, National Grid receives a payment equivalent to 45% of the under spend, subject to a limit of £7m. Conversely, if total spend against the incentive is in excess of the target, National Grid incurs a penalty of 45% of the overspend, subject to a limit of £7m.

Maintenance

Purpose

45. To incentivise the efficient planning and execution of network maintenance impacting customers at direct exit connections⁷ from the NTS.

Description

46. To ensure the ongoing reliability and integrity of the NTS in line with regulatory and safety requirements, National Grid is required to periodically undertake maintenance of the pipeline system. Where this work requires an outage, or to reduce the flexibility available (e.g. where steady gas flows may be required) at one or more direct exit connections, National Grid may 'call' one or more 'Maintenance Days' in accordance with the Uniform Network Code (subject to any site-specific limitations).
47. To minimise the impact of maintenance work on customers, National Grid plan maintenance activities to align with periods which minimise disruption to customer operations. Where National Grid can align maintenance to periods which have no impact on customer contractual rights, National Grid will communicate the maintenance period as "Advice Notice Days"⁸. Where this is not possible and an outage or restriction on customer operations is required, a "Maintenance Day" will be called. The maintenance incentive is therefore split into two scheme components:
 - Changes scheme - minimisation of changes initiated by National Grid to the agreed maintenance plan; and
 - Use of Days scheme - minimisation of the use of Maintenance Days to perform Remote Valve Operations maintenance.

The Changes scheme

48. The target number of Maintenance Days or Advice Notice Days, subject to change initiated by National Grid (excluding changes made by National Grid pursuant to customer's request), is equal to 7.25% of the total number of maintenance plan days within the year. Changes within scope include changes to dates (including reduction or increases to the number of days for a specific job) or cancellation of days.
49. If the actual number of days changed is equal to target, the incentive revenue is zero. If the actual number of days changed is less than the target, then a payment of £50,000 per change below target is accrued up to a scheme cap of £0.5m (for 10 changes or more below target). If the actual number of days changed exceeds the target, then a penalty of £50,000 per change more than the target is accrued to a scheme collar of -£0.5m (for 10 changes or more above target).

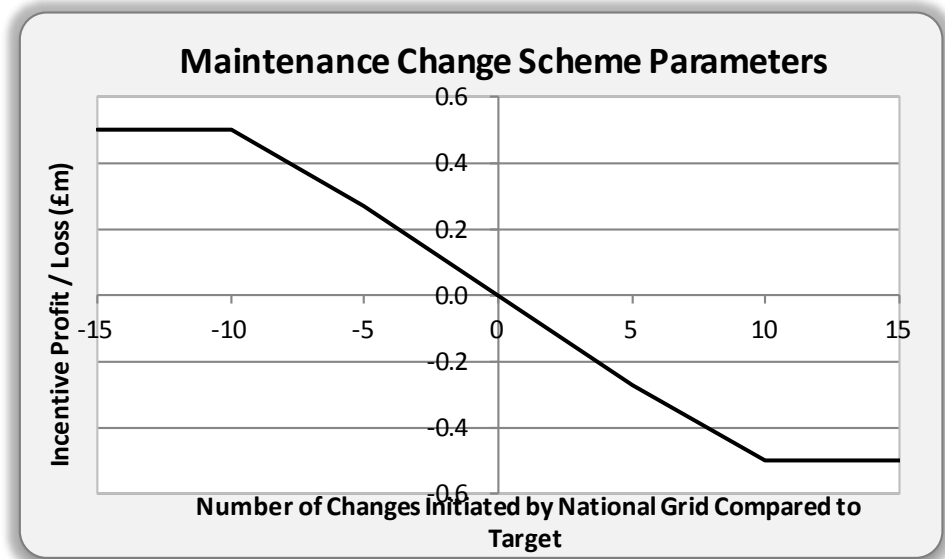
⁷ Direct exit connections to the NTS include individual NTS Supply Points and NTS Connected System Exit Points, but exclude offtakes to Distribution Networks.

⁸ Where a single maintenance activity affects multiple NTS Exit Points on a day, this is construed as a single day for the purposes of the Maintenance Incentives

Scheme Parameters

50. The incentive scheme parameters are summarised in Figure 7 below.

Figure 7: Maintenance Change scheme parameters



The Use of Days scheme

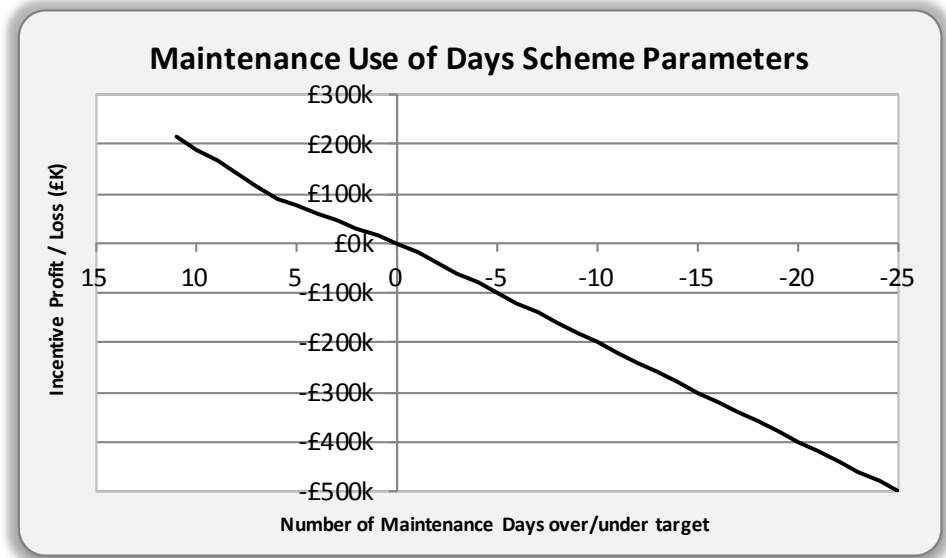
51. The Use of Days scheme incentivises National Grid to minimise the number of Maintenance Days used to undertake Remote Valve Operations⁹. National Grid has an annual incentive target (in days) of 11.
52. If the actual number of Maintenance Days used for these activities is equal to the target, the incentive revenue is zero. If the actual number of Maintenance Days used is less than target, National Grid receives a tiered payment between £15,000 and £25,000 each day below the target, up to a natural scheme cap of £0.215m. The first 5 days used at £25,000, followed by £15,000. If the actual number of Maintenance Days used exceeds the target, National Grid receives a penalty of £20,000 per day up to £0.5m (for 25 days or more above target).

Scheme Parameters

53. The incentive scheme parameters are summarised in Figure 8 below.

⁹ Valves are used to control the flow of gas and isolate pipelines in an emergency. To ensure the safe operation of the system, National Grid maintain key valves on an annual basis where they will need to be opened and closed to ensure operation, requiring a system bypass to maintain supply.

Figure 8: Maintenance Use of Days scheme parameters



Entry Capacity and Exit Capacity Constraint Management

Purpose

54. To incentivise an efficient overall cost of System Operator constraint management actions through efficient system operation and optimisation of strategies, and encourage balanced risk versus reward decisions in the release of additional capacity.

Description

55. The current regulatory and commercial frameworks oblige National Grid to release obligated levels of capacity significantly more than peak demand at both entry and exit points on the network. Flows of gas at these levels of capacity cannot occur concurrently, so National Grid takes a view of the likely combinations of supply and demand patterns likely to occur and assesses the most efficient solution to meet customer capacity requirements. National Grid considers the rules, tools and asset options available.
56. In the instances where National Grid believes that Shippers' flow requirements associated with booked capacity cannot be accommodated, constraint management actions are undertaken in accordance with the Uniform Network Code and System Management Principles Statement¹⁰. These actions fall into two categories:
- Operational constraint management – actions taken by National Grid to manage day to day issues on the network. Examples of such include unavailability of compression or maintenance outages; and
 - Investment constraint management – actions taken by National Grid to manage longer term issues associated with provision of additional capacity on the network. Examples of such include where physical reinforcement is not delivered within the contracted timescale.
57. There are numerous commercial tools available to manage Operational and investment constraints, which include:
- Capacity Buybacks – buying back Firm Entry or Exit Capacity previously sold to system users;
 - Locational Energy Trades – buying gas into NTS linepack or selling gas out of NTS linepack at specific locations on the network; and
 - Turn Up/Turn Down Contracts – contracts to manage specific planned outages or where specific flow requirements need to be confirmed in advance.
58. Incentive performance is driven by the difference between the net constraint management costs over a year (i.e. constraint management

¹⁰ For details of the System Management Principles statement (SMPS), see: <https://www.nationalgrid.com/sites/default/files/documents/8589936696-System%20Management%20Principles%20Statement.pdf>

costs less revenues from the sale of certain capacity products) and a target value for such costs.

59. The revenues that feed into this incentive are:

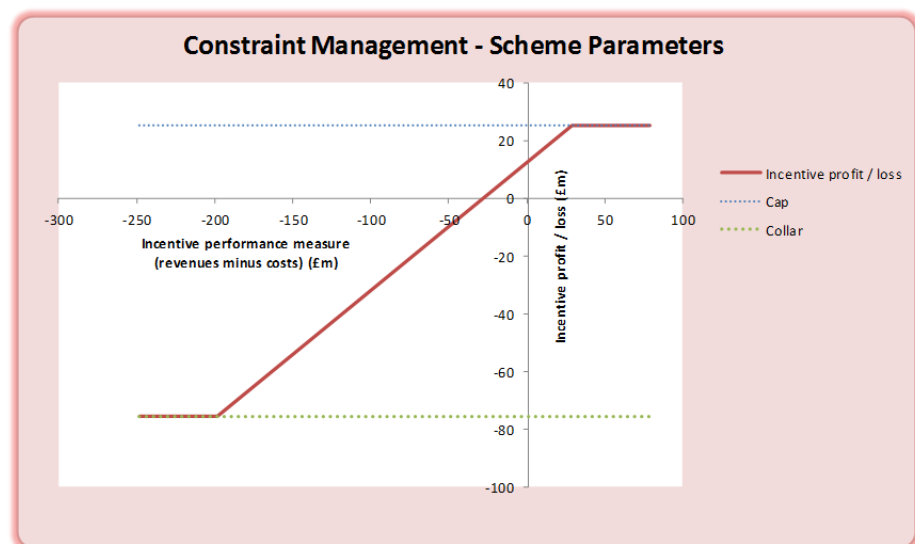
- locational sell actions and physical re-nomination incentive charges (having the meaning given to these terms in the Uniform Network Code)
- Non-obligated capacity (capacity released over and above the obligated level);
- Interruptible Entry Capacity and Off Peak Exit Capacity;
- Within Day Firm Entry and Exit Capacity; and
- Entry overrun charges (the charges incurred when Users' flows exceed their capacity entitlements).

60. All costs and revenues associated with the scheme are passed through to Shippers through Capacity Neutrality and other charges. National Grid receives an incentive revenue or penalty depending on whether actual net costs are higher or lower than the incentive target. This revenue or penalty feeds through charges two years after the financial year to which the incentive performance relates.

Scheme Parameters

61. The incentive scheme parameters for the operational part of the scheme are summarised in Figure 9.

Figure 9: Entry Capacity and Exit Capacity Constraint Management scheme



62. For 2018/19 the target is comprised of:

- a net target cost of £28m for entry and exit operational constraint management with National Grid's incentive revenue or penalty being 44.36% of the over or under spend respectively; and
- a £0m target for entry and exit investment constraint management with National Grid's incentive revenue or penalty being 100% of the under or overspend.

63. The incentivised range for 2018/19 is between a net cost of £198.3m and a net revenue of £29.11m. (Target, cap and collar is subject to the final RPI numbers).

Transportation Support Services

Purpose

64. To incentivise the minimisation of the overall cost of Transportation Support Services.

Description

65. Transportation Support Services (TSS) are additional tools available to National Grid to support provision of a network to meet a 1-in-20 peak day demand¹¹. These tools are substitutes for physical pipeline capacity and there were two forms:

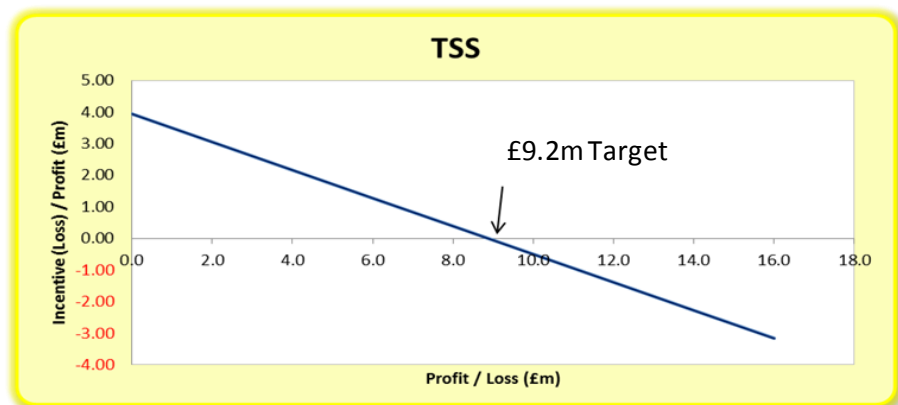
- Long Run Contracting – This was comprised of commercial arrangements at five specifically named direct offtakes in the South West of the network. These ensured that National Grid retained the ability to manage the network following the introduction of the universal firm exit regime through Exit reform.
- Constrained LNG – National Grid procured services at the Avonmouth¹² LNG Storage Facility as a substitute for network investment during periods of high demand in the South West.

66. The TSS incentive scheme expired on 30th September 2018.

Scheme Parameters

67. The incentive scheme parameters are summarised in Figure 10.

Figure 10: Transportation Support Services scheme



¹¹ 1 in 20 peak day demand is the level of daily demand that, in a long series of winters, with connected load held at the levels appropriate to the winter in question, would be exceeded in one out of 20 winters, with each winter counted only once.

¹² Avonmouth LNG Storage Facility closed within the 2016/17 incentive year.

Customer and Stakeholder Satisfaction

Purpose

68. To incentivise delivery of customer and stakeholder satisfaction with outputs delivered by National Grid.

Description

69. Customer and Stakeholder Satisfaction is an indicator of how satisfied customers and stakeholders are with National Grid. To reflect the importance of customer and stakeholder satisfaction, National Grid is incentivised to survey its customers and stakeholders to measure their overall satisfaction.
70. National Grid carries out surveys on a trigger based process to capture customer and stakeholder feedback in a timely and relevant manner. The survey asks customers to rate their overall satisfaction with National Grid Transmission on a scale of 1 to 10, where 1 is very dissatisfied and 10 is very satisfied for a range of services and engagement.
71. Our surveys cover both the 'System Operator' and 'Transmission Owner' aspects of our role to align with customers' and stakeholders' experience of how we operate as an integrated provider of transmission services.
72. The incentive scheme provides an incentive reward or penalty to National Grid of up to +/- 1% of National Grid's annual allowed revenue.



3

Financial Performance

Financial Performance

73. The following tables summarise National Grid's incentive performance.

74. Please note that incentive schemes often change from year to year so consideration should be given to this when comparing performance figures across years.

Table 3: Demand Forecasting, D-1

Incentive Year	Incentive Target	Performance	Incentive Performance
2011/12	2.75%	3.37%	-£1.60m
2012/13	2.75%	3.82%	-£1.60m
2013/14	9.40 mcm	8.69 mcm	£0.88m
2014/15	8.95 mcm	8.07 mcm	£1.54m
2015/16	9.00 mcm	7.75 mcm	£1.96m
2016/17	9.39 mcm	8.53 mcm	£1.51m
2017/18	9.03 mcm	8.24 mcm	£1.39m

Table 4: Demand Forecasting Incentive, D-2 to D-5

Incentive Year	Incentive Target	Performance	Incentive Performance
2013/14	16.00 mcm	13.10 mcm	£1.60m
2014/15	16.00 mcm	12.55 mcm	£2.15m
2015/16	13.70 mcm	12.09 mcm	£1.17m
2016/17	13.70 mcm	12.39 mcm	£0.95m
2017/18	13.70 mcm	12.06 mcm	£1.19m

Table 5: Greenhouse Gas Emissions

Incentive Year	Incentive Target	Performance	Incentive Performance
2011/12	3,007 tonnes ¹³	3,000 tonnes	£0.000m
2012/13	3,007 tonnes	3,443 tonnes	-£0.353m
2013/14	2,917 tonnes	3,332 tonnes	-£0.541m
2014/15	2,829 tonnes	2,857 tonnes	-£0.039m
2015/16	2,744 tonnes	2,882 tonnes	-£0.195m
2016/17	2,897 tonnes	3,590 tonnes	-£1.008m
2017/18	2,897 tonnes	3,893 tonnes	-£1.363m

¹³ Target quoted is mid-point between upper and lower limit (deadband)

Table 6: Residual Balancing

Incentive Year	Incentive Target (daily)		Performance (average, all days in year)		Incentive Performance
	Price	Linepack	Price	Linepack	
2011/12	1.5%	2.8 mcm	1.57%	2.46 mcm	£0.252m
2012/13	1.5%	2.8 mcm	1.69%	1.96 mcm	£0.647m
2013/14	1.5%	2.8 mcm	0.70%	1.90 mcm	£0.952m
2014/15	1.5%	2.8 mcm	0.96%	1.61 mcm	£1.088m
2015/16	1.5%	2.8 mcm	0.64%	1.62 mcm	£1.195m
2016/17	1.5%	2.8 mcm	0.95%	1.74 mcm	£1.060m
2017/18	1.5%	2.8 mcm	1.77%	1.99 mcm	£0.649m

Table 7: NTS Shrinkage

Incentive Year	Incentive Target	Performance	Out-performance	Incentive Performance
2011/12	£124.6m	£94.7m	£29.9m	£5.0m
2012/13	£114.9m	£101.6m	£13.3m	£3.3m
2013/14	£112.6m	£101.2m	£11.4m	£5.1m
2014/15	£87.95m	£77.17m	£10.78m	£4.8m
2015/16	£87.22m	£73.24m	£13.98m	£6.3m
2016/17	£76.12m	£70.49m	£5.62m	£2.53m
2017/18	£83.21m	£71.16m	£12.05m	£5.42m

Table 8: Maintenance

Incentive Year	Incentive Target (days)		Performance (days)		Incentive performance
	Change To MD	Use of MD	Change To MD	Use of MD	
2013/14	6.24	72.30	0.00	31.00	£1.138m
2014/15	1.02	44.65	0.00	4.00	£0.864m
2015/16	3.99	11.00	0.00	2.00	£0.364m
2016/17	16.82	11.00	0.00	1.00	£0.690m
2017/18	20.37	11.00	0.00	1.00	£0.690m

Table 9: Entry and Exit Capacity Constraint Management

Incentive Year	Incentive Target	Performance	Incentive performance
2013/14	£25.67m	-£2.80m	£12.63m
2014/15	£26.18m	-£2.27m	£12.62m
2015/16	£26.44m	-£1.95m	£12.60m
2016/17	£27.02m	-£2.96m	£13.28m
2017/18	£28.03m	-£4.04m	£14.23m

Table 10: Transportation Support Services

Incentive Year	Incentive Target	Performance	Incentive performance
2013/14	£8.41m	£0.03m	£3.70m
2014/15	£8.71m	£0.00m	£3.90m
2015/16	£8.87m	£0.00m	£3.93m
2016/17	£8.84m	£0.00m	£3.94m
2017/18	£9.21m	£0.00m	£4.09m



4

Incentive Payment Charges

Impact of Incentive Payments on Charges

This section shows the link between incentive revenues and charges faced by Users.

75. National Grid's incentive payments are recovered from Shippers through the SO Commodity Charge, which National Grid has a reasonable endeavours obligation to only set twice a year on the 01 April and the 01 October.
76. National Grid publishes a quarterly update on the charges report, which contains either the actual SO Commodity Charge, or the latest forecast of the charge. This report also includes supporting data on how these charges have been calculated and can be found (with previous versions) on the National Grid website.
77. As a rule of thumb, an increase of £2m in the costs recovered through the SO commodity charge would correspond with an increase in the SO Commodity Charge of approximately 0.0001p/kWh applied to both entry and exit flows.
78. From 2013/14, revenues and costs in respect of the Entry Capacity and Exit Capacity Constraint Management and Transportation Support Services incentive schemes were reflected in the SO Commodity Charge within the second Formula Year following the Formula Year in which those revenues and costs were accrued.
79. Accordingly, incentive revenues and costs for 2016/17 (in respect of the two schemes specified above) will be reflected in SO Commodity Charges in 2018/19.

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