

# Appendix

A21

## IQI – NGN Proposal



# RIO-GD1 Information Quality Incentive (IQI)

## 1 Application of RIO Principles

Under the RIO framework Return on Regulatory Equity (RORE) is used as a key indicator of the suitability of the overall financial package presented by a price control settlement. It provides a strong framework against which the individual and collective incentive arrangements, within the settlement, can be assessed in terms of risks and rewards for both equity investors and customers.

Ofgem have set out in recent price control settlements and in the March 2010 Strategy document that appropriate ranges for companies achieving strong outperformance of the regulatory settlement should be a RORE that achieves a double-digit return. Whilst those companies delivering poor performance should expect returns in line with the cost of debt. These decisions and statements are consistent with market expectations of returns for companies with efficient performance.

The role of the IQI is to set the strength of the upfront efficiency incentives, and to encourage companies to submit more accurate expenditure forecasts. The strength of the efficiency incentives will depend on a range of factors and the RIO handbook sets out a range of factors that will be considered. A high efficiency incentive rate will reduce the incentive to grow RAV, which is a salient consideration, given the uncertain future demand for the gas network.

Within RORE the strength of the IQI incentives has to be considered alongside the range and values of other incentives within the settlement and the assumed Cost of Equity (COE). A smaller range of other incentives with constrained rewards or penalties, would tend towards higher efficiency incentives within the IQI to achieve the desired outcomes for good and poor performing companies. Similarly, lower COE would tend towards higher efficiency incentives.

## 2 Ofgem Assessment of Efficiency

Key to the efficient operation of the IQI framework is of course Ofgem's own assessment of the relative efficiency of each GDN, and how this is translated into both a regulatory allowance and the incentives that companies will face during RIO-GD1.

NGN has been fully supportive of the advances that Ofgem has made in the use of benchmarking techniques that incorporate a broader toolkit approach to the assessment of comparative efficiency. We continue to support Ofgem proposals, to use the information taken from this analysis to inform decisions on allowances and incentives in a less mechanistic fashion than previously. We also note Ofgem is not proposing to use the IQI in a mechanistic fashion to set allowances and will instead look to calibrate allowances based on quartile rather than frontier positions. This approach we support.

The introduction of Totex benchmarking and the use of aggregated top-down analysis are fully consistent we believe with an overall Totex framework under RIO. In determining an overall efficiency ratio for the IQI, therefore, greater weight should be attached to the results of this benchmarking work, rather than those carried out at a more disaggregated or activity level. In addition, the aggregated analysis tends to have more robust results and is clearly less affected by issues of cost allocation and definition.

It is also important that the assessment recognises fully the role of both historic and forecast benchmarking results in the process as both elements are key drivers of both value for customers and ongoing efficiency. This could take the form of panel data analysis incorporating the full period from 2008/9 to 2020/21 carried out on a Totex basis.

Given the uncertainties surrounding this assessment of efficiency, we have shown in the following sections, three scenarios of an Ofgem baseline to company forecast ratio (we refer to this in the rest of this document as the Ofgem ratio) of 90, 100 and 110 to demonstrate the range of potential outcomes.



## 2.1 December 2010 IQI Proposed for RIIO-GD1 (Appendix C)

An assessment of the broad incentive package (as currently proposed for RIIO-GD1) is set out in the Appendix A against the three scenarios using RORE analysis. This uses the IQI matrix published by Ofgem in December 2010 which is shown in Appendix C.

Each scenario is assessed against a very aggressive assumption of 10% out/underperformance of expenditure allowances. For NGN, achieving a 10% overall Totex out performance when considered against the range of specific outputs that NGN has committed to deliver in our business plan, as well as and the frontier levels of efficiency we have achieved in GDPCR1, will be very challenging. For the purposes of the analysis, we have also assumed the recent RIIO-T1 decision of 7% for COE.

The upper and lower RORE ranges from this analysis are shown in Figure A20.1 below:

	Scenario 1 Ofgem Ratio = 100	Scenario 2 Ofgem Ratio = 90	Scenario 3 Ofgem Ratio = 110
RORE Lower Range	3.4%	3.3%	3.5%
RORE Upper Range	9.5%	9.8%	9.4%

Figure A20.1

Scenarios 1 and 2 are extremely challenging assessment positions. In both the recent transmission price control and the last electricity distribution price control Ofgem has assessed the most efficient companies at 100. **There is no precedent of Ofgem ever assessing any company at less than 100 under the IQI framework.** To do so would probably require a significant change to the assessment methodology applied by Ofgem.

Clearly none of these scenarios meets the key criteria set out by Ofgem for the upper and lower RORE ranges. Scenarios 1 and 2 represent low probability outcomes both in terms of the Ofgem ratio and the potential to outperform allowed expenditure. However, they do provide a useful benchmark that indicates the current proposals as set out by Ofgem do not represent an appropriate RORE range to address what would be expected from a frontier performing company.

## 2.2 February 2011 IQI Proposed for RIIO-T1 (Appendix D)

The published RORE range and its individual components for the fast-tracked transmission companies in RIIO-T1, also provides a useful benchmark for assessing what the appropriate arrangements will be for RIIO-GD1. Figure A20.2 below sets out the published fast track RORE range adjusted to 62.5% gearing for direct comparison and using 7% COE and a 10% out/underperformance range:

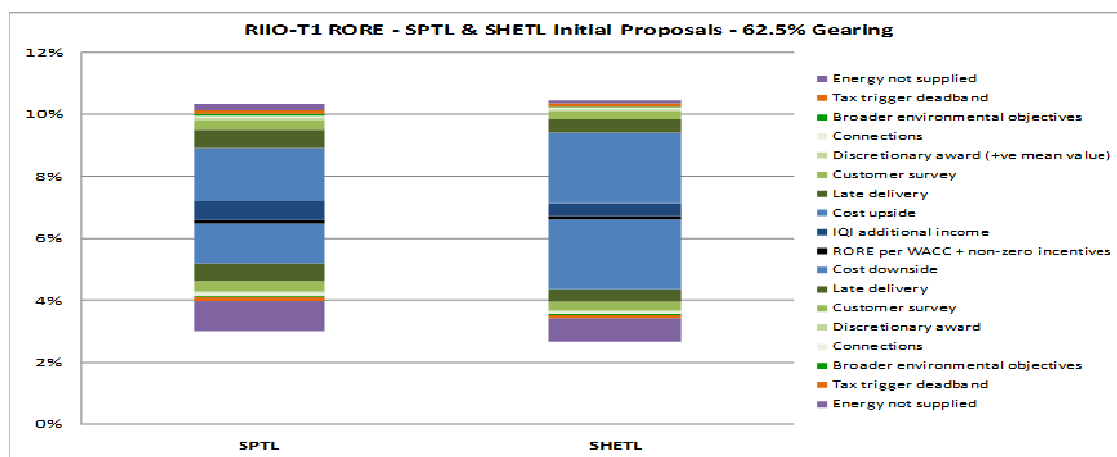


Figure A20.2:Ofgem RIIO-T1Initial Proposals RORE & IQI (Ofgem Ratio=100)

The assessment of RORE for RIIO-T1 sets out a plausible range of 3.1-10.3% for SPTL and 2.7-10.4% for SHETL. These ranges are consistent with the expectations from the RIIO principles, but notably, are significantly above and below the ranges that can be derived from the IQI currently proposed for RIIO-GD1.

In particular, there are two key elements of the RORE assessment for transmission that contrast significantly with the current RIIO-GD1 equivalent and therefore require further consideration:

- **IQI Additional Income/Frontier Reward**– Ofgem have assessed SPTL & SHETL’s expenditure forecasts to be in line with their own expectations. This has resulted in an Ofgem ratio of 100. As either fast track or frontier companies the IQI Matrix correctly awards both companies with an additional IQI income of £31m and £43m to SHETL & SPTL respectively. This equates to a 0.33% to 0.62% addition to base RORE.

In comparison, the IQI matrix for RIIO-GD1 would award no additional income for any GDN being assessed at 100. More importantly even if company forecasts were assessed to be 10% lower than Ofgem efficiency benchmark, the additional IQI income awarded would only be £1.4m per £100m of Totex compared to £2.5m per £100m of Totex under RIIO-T1.

- **IQI Efficiency Incentive**– The efficiency incentive rate for RIIO-T1 fast track is 50% at a ratio of 100. This equates to an impact on base RORE of up to 1.89%. The efficiency incentive rate for RIIO-GD1 is 60% at 100 – which equates to +/-1.80% of base RORE. This figure is slightly lower than RIIO-T1 but disappointingly at this level does not provide an acceptable RORE range that is appropriate for a frontier company.

## 2.3 Efficiency Incentives for RIIO-GD1

### a) IQI and Additional Income Reward

The additional income reward element of the IQI arrangements is one of the key elements of the incentive framework, and plays an important role in maintaining the strength of incentives within the price control period and between price control periods. There are several concerns with Ofgem’s current IQI proposals for RIIO-GD1 outlined below:

- **Consistency and Strength of Incentives**– It is not clear that there is or should be any rationale to suggest that the strength of the incentive for efficiency and accurate forecasting provided by the additional income reward should be lower in gas distribution than in electricity transmission.

Ofgem’s current proposals indicate wrongly, that transmission should receive a greater incentive for accurate and efficient forecasting than gas distribution.

**Comparative Regulation and Efficiency** – The sale of four networks in 2005 created an environment where the use of benchmarking and comparative regulation has been able to generate a genuine level of competition between GDNs. This has delivered significant resultant benefits for customers.

Ofgem have recognised this explicitly in previous regulatory reviews including GDPCR, DPCR5 and more recently in the fast track proposals for RIIO-T1. The specific incentive properties of the IQI matrix have been a key driver of NGN’s approach to delivering on-going efficiencies - aimed at ensuring that at each periodic review the IQI matrix appropriately rewards NGN for the value created across all GDNs by continuing to extend the efficiency benchmark.

Estimates of the value created from the approach taken by NGN can be drawn from analysing Ofgem’s own benchmarking assessment of historic costs during GDPCR1. A summary of analysis undertaken by NGN was set out in our November 2011 business plan and estimates that over GDPCR1, NGN has extended the efficiency frontier compared to an average GDN, by an average of £35m (Totex). Adjusting all GDNs to this benchmark for RIIO-GD1, would create additional value for customers in excess of £200m.

The use of direct comparative regulation model directly within gas distribution clearly emphasises the impact that strong incentives can have on delivering value for customers. It is also clear that there is scope within the overall regulatory incentive framework for the strength of IQI incentive provided by the Additional Income Reward to deliver greater value for customers when employed within gas distribution when compared to transmission where direct comparisons are more difficult.

NGN therefore propose that as a minimum, the strength of this incentive within the IQI framework has to be at least equivalent to that applied in the transmission fast track proposals of £2.5m per £100m of Totex.

## b) IQI Efficiency Incentive Rate

Ofgem’s current IQI efficiency rate for RIIO-GD1 is 60% compared to 50% for RIIO-T1. The focus of this element of the IQI will provide the key incentives for companies within price control periods whilst rewarding companies for historic performance and future efficient forecasts.

Examining the key elements of the financial incentives package across RIIO-GD1, it is clear that the focus for GDNs over this period will be managing the relatively stable cost base and ensuring that opportunities for ongoing efficiency and productivity are fully exploited, so as to maximise the creation of longer term value for customers. There is a case, therefore, that this element of the IQI framework is significantly more important for GDNs than transmission where the drive is deliver efficiently additional capacity.

In addition, within the transmission companies, with significant forecast future growth there is less concern about the strength of the incentive to grow the RAV.

Finally, returning to the comparison of relevant RORE ranges between RIIO-GD1 and RIIO-T1, the efficiency incentive rate of 60% does not provide a range for RORE under which frontier companies are capable of achieving double digit returns – even under aggressive assumptions on future efficiency.

To address this specific issue NGN proposes that the efficiency incentive rate for RIIO-GD1 be set at 70% at 100 within the matrix.

## 2.4 NGN Proposed IQI Matrix for RIIO-GD1 (Appendix B)

Considering the range of issues identified above NGN will propose the IQI Matrix set out in Appendix B as part of our April 2012 business plan submission. This incorporates the revised IQI additional income calibration and increased efficiency rate incentive.

Applying this IQI using the assumptions outlined earlier in this paper results in the upper and lower RORE ranges shown in Figure A20.3 below:

	Scenario 1 Ofgem Ratio = 100	Scenario 2 Ofgem Ratio = 90	Scenario 3 Ofgem Ratio = 110
RORE Lower Range	3.1%	2.8%	3.3%
RORE Upper Range	10.3%	10.7%	9.7%

Figure A20.3

This proposal therefore is fully consistent with the agreed wider objectives of the RIIO incentive framework by providing for returns which allow the most efficient companies to deliver double digit returns and the least efficient to only receive returns consistent with the cost of debt.

Although based upon aggressive assumptions about the ability of NGN to outperform to achieve these returns, we believe it provides a very strong incentive framework to encourage ongoing efficiency and provide significant long term benefit for gas customers.

## 2.5 Appendix A: RORE Ranges using Ofgem RIIO-GD1 IQI Matrix Published December 2010

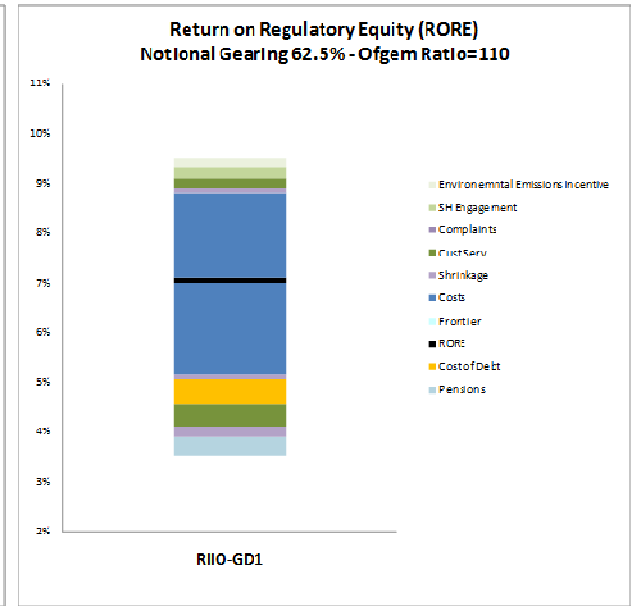
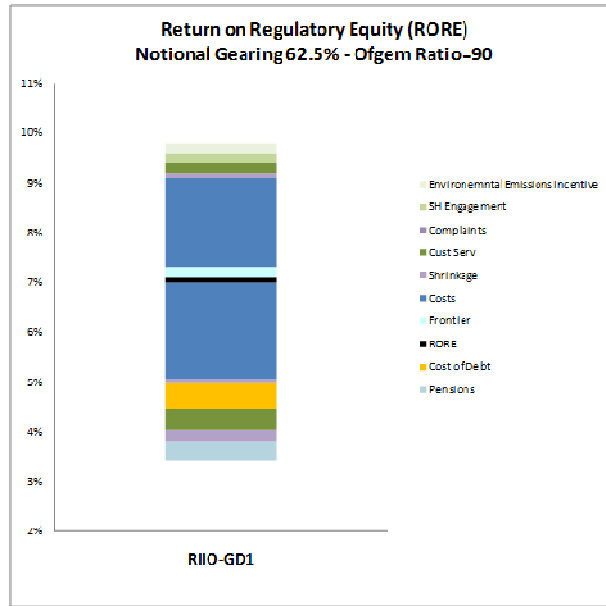
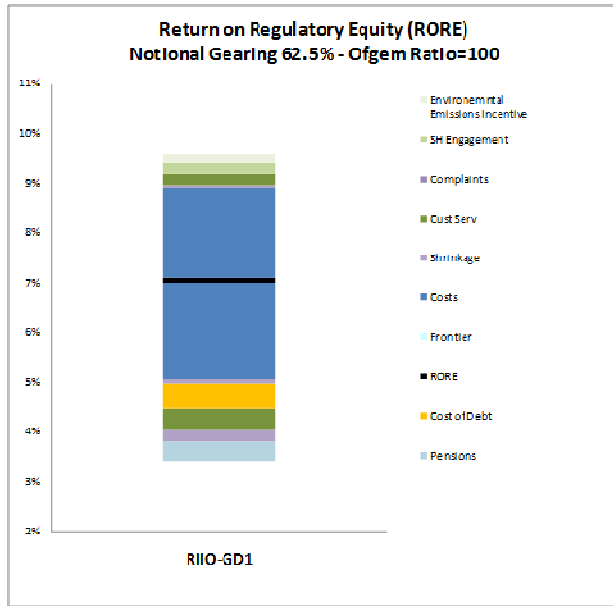


Figure A20.4: Ofgem RIIO-GD1 RORE & IQI (Ofgem Ratio=100)

Figure A20.5: Ofgem RIIO-GD1 RORE & IQI (Ofgem Ratio=90)

Figure A20.6: Ofgem RIIO-GD1 RORE & IQI (Ofgem Ratio=110)

## 2.6 Appendix B: NGN Proposal – RII0-GD1 IQI Matrix

Operator:Ofgem Ratio	90	95	100	105	110	115	120	125	130	135	140
Efficiency Incentive	78%	74%	70%	66%	63%	59%	55%	51%	48%	44%	40%
Additional income (£/100m)	4.1	3.3	2.5	1.6	0.6	-0.5	-1.8	-3.0	-4.4	-5.9	-7.5
Rewards & Penalties											
Allowed expenditure	97.50	98.75	100.00	101.25	102.50	103.75	105.00	106.25	107.50	108.75	110.00
Actual Expenditure											
85	13.8	13.5	13.0	12.3	11.5	10.5	9.3	7.8	6.3	4.5	2.5
90	9.9	9.8	9.5	9.0	8.4	7.5	6.5	5.3	3.9	2.3	0.5
95	6.0	6.1	6.0	5.7	5.3	4.6	3.8	2.7	1.5	0.1	-1.5
100	2.1	2.4	2.5	2.4	2.1	1.7	1.0	0.2	-0.9	-2.1	-3.5
105	-1.8	-1.3	-1.0	-0.9	-1.0	-1.3	-1.8	-2.4	-3.3	-4.3	-5.5
110	-5.6	-5.0	-4.5	-4.2	-4.1	-4.2	-4.5	-5.0	-5.6	-6.5	-7.5
115	-9.5	-8.7	-8.0	-7.5	-7.3	-7.2	-7.3	-7.5	-8.0	-8.7	-9.5
120	-13.4	-12.3	-11.5	-10.8	-10.4	-10.1	-10.0	-10.1	-10.4	-10.8	-11.5
125	-17.3	-16.0	-15.0	-14.2	-13.5	-13.0	-12.8	-12.7	-12.8	-13.0	-13.5
130	-21.1	-19.7	-18.5	-17.5	-16.6	-16.0	-15.5	-15.2	-15.1	-15.2	-15.5
135	-25.0	-23.4	-22.0	-20.8	-19.8	-18.9	-18.3	-17.8	-17.5	-17.4	-17.5
140	-28.9	-27.1	-25.5	-24.1	-22.9	-21.8	-21.0	-20.3	-19.9	-19.6	-19.5

Figure A20.7



## 2.7 Appendix C: Ofgem RIIO-GD1 IQI Matrix published December 2010

Operator:Ofgem Ratio	90	95	100	105	110	115	120	125	130	135	140
Efficiency Incentive	63%	61%	60%	59%	58%	56%	55%	54%	53%	51%	50%
Additional income (£/100m)	1.4	0.7	0.0	-0.8	-1.6	-2.4	-3.3	-4.1	-5.1	-6.0	-7.0
Rewards & Penalties											
Allowed expenditure	97.50	98.75	100.00	101.25	102.50	103.75	105.00	106.25	107.50	108.75	110.00
Actual Expenditure											
85	9.3	9.2	9.0	8.8	8.5	8.2	7.8	7.3	6.8	6.2	5.5
90	6.1	6.1	6.0	5.8	5.6	5.3	5.0	4.6	4.1	3.6	3.0
95	3.0	3.0	3.0	2.9	2.8	2.5	2.3	1.9	1.5	1.0	0.5
100	-0.1	0.0	0.0	0.0	-0.1	-0.3	-0.5	-0.8	-1.1	-1.5	-2.0
105	-3.3	-3.1	-3.0	-3.0	-3.0	-3.1	-3.3	-3.5	-3.8	-4.1	-4.5
110	-6.4	-6.2	-6.0	-5.9	-5.9	-5.9	-6.0	-6.2	-6.4	-6.7	-7.0
115	-9.5	-9.2	-9.0	-8.8	-8.8	-8.7	-8.8	-8.8	-9.0	-9.2	-9.5
120	-12.6	-12.3	-12.0	-11.8	-11.6	-11.5	-11.5	-11.5	-11.6	-11.8	-12.0
125	-15.8	-15.3	-15.0	-14.7	-14.5	-14.3	-14.3	-14.2	-14.3	-14.3	-14.5
130	-18.9	-18.4	-18.0	-17.7	-17.4	-17.2	-17.0	-16.9	-16.9	-16.9	-17.0
135	-22.0	-21.5	-21.0	-20.6	-20.3	-20.0	-19.8	-19.6	-19.5	-19.5	-19.5
140	-25.1	-24.5	-24.0	-23.5	-23.1	-22.8	-22.5	-22.3	-22.1	-22.0	-22.0

Figure A20.8





## 2.8 Appendix D: RIIO-T1 IQI Matrix

Operator:Ofgem Ratio	90	95	100	105	110	115	120	125	130	135	140
Efficiency Incentive	53%	51%	50%	49%	48%	46%	45%	44%	43%	41%	40%
Additional income (£/100m)	3.7	3.1	2.5	1.9	1.2	0.5	-0.3	-1.0	-1.8	-2.6	-3.5
Rewards & Penalties											
Allowed expenditure	97.50	98.75	100.00	101.25	102.50	103.75	105.00	106.25	107.50	108.75	110.00
Actual Expenditure											
85	10.3	10.2	10.0	9.8	9.5	9.2	8.8	8.3	7.8	7.2	6.5
90	7.6	7.6	7.5	7.3	7.1	6.8	6.5	6.1	5.6	5.1	4.5
95	5.0	5.0	5.0	4.9	4.8	4.5	4.3	3.9	3.5	3.0	2.5
100	2.4	2.5	2.5	2.5	2.4	2.2	2.0	1.7	1.4	1.0	0.5
105	-0.3	-0.1	0.0	0.0	0.0	-0.1	-0.3	-0.5	-0.8	-1.1	-1.5
110	-2.9	-2.7	-2.5	-2.4	-2.4	-2.4	-2.5	-2.7	-2.9	-3.2	-3.5
115	-5.5	-5.2	-5.0	-4.8	-4.8	-4.7	-4.8	-4.8	-5.0	-5.2	-5.5
120	-8.1	-7.8	-7.5	-7.3	-7.1	-7.0	-7.0	-7.0	-7.1	-7.3	-7.5
125	-10.8	-10.3	-10.0	-9.7	-9.5	-9.3	-9.3	-9.2	-9.3	-9.3	-9.5
130	-13.4	-12.9	-12.5	-12.2	-11.9	-11.7	-11.5	-11.4	-11.4	-11.4	-11.5
135	-16.0	-15.5	-15.0	-14.6	-14.3	-14.0	-13.8	-13.6	-13.5	-13.5	-13.5
140	-18.6	-18.0	-17.5	-17.0	-16.6	-16.3	-16.0	-15.8	-15.6	-15.5	-15.5

Figure A20.9

