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All interested parties

Date: 25 August 2021

Dear colleague,

Review of National Grid Gas Plc (NGG) Capacity Constraint Management incentive for RIIO-GT2

Executive Summary

The introduction of changes to the gas transmission charging regime in October 2020 from UNC Modification 678A 'Amendments to Gas Transmission Charging Regime (Postage Stamp)'[1] resulted in significant increases in the price of certain short-term capacity products. Despite lower volumes of these capacity products being sold since October 2020, the revenues from the sale of these products were much higher and this, if unadjusted, would lead to a high return for NGG from its Capacity Constraint Management (CCM) incentive.

On 3 February 2021, we[2] published our letter on implementing the incentive as part of NGG's Gas Transporter Licence for RIIO-GT2. In that letter, we said that we would review the CCM incentive considering the changes to the gas charging regime from October 2020. We have concluded our review and our decision is to remove certain capacity revenue streams from the calculation of the CCM incentive performance, and to significantly scale back the contribution from the remaining non-obligated entry and exit capacity revenue streams.

These changes will preserve the integrity of the CCM incentive and are consistent with the overall intent in terms of the balance between risk and reward as set for RIIO-GT2 in our Final Determinations.[3] We do not see any evidence to contemplate other changes and therefore the other parameters set for the CCM incentive, such as the target cost, the performance cap and collar, remain unchanged.

We are consulting on changing NGG's Gas Transporter licence (the "licence") alongside this letter to give effect to these revisions.

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[1] Amendments to Gas Transmission Charging Regime: Decision and Final Impact Assessment (UNC678/A/B/C/D/E/F/G/H/I/J) (28 May 2020) https://www.ofgem.gov.uk/publications-and-updates/amendments-gastransmission-charging-regime-decision-and-final-impact-assessment-unc678abcdefghij

[2] References to the "Authority", "Ofgem", "we" and "our" are used interchangeably in this document. The Authority refers to GEMA, the Gas and Electricity Markets Authority. The Office of Gas and Electricity Markets (Ofgem) supports GEMA in its day-to-day work. This decision is made by or on behalf of GEMA.

[3] The link to our RIIO-GT2 Final Determinations document can be found here: https://www.ofgem.gov.uk/sites/default/files/docs/2021/02/final_determinations_-_nggt_annex_revised.pdf

Background

On 3 February 2021, we published our letter on implementing the CCM incentive as part of NGG's Gas Transporter Licence for RIIO-GT2.[4] In that letter we described the changes to NGG's cashflows which we had observed from 1 October 2020. We said that we would review the CCM incentive considering the changes to the gas charging regime from October 2020, following the introduction of UNC678A.

Prior to October 2020, short term capacity prices were very low (daily interruptible and on-the-day entry capacity was sold in auctions which had a zero reserve price). Historically, these capacity products contributed low cash-flows to the calculation of the CCM incentive. Since 1 October 2020, these capacities have been sold in auctions with a positive reserve price, which has resulted in significantly higher revenues feeding into the calculation of the CCM incentive. This means the unadjusted CCM incentive would have reached its maximum cap for regulatory year 2020/21, which the data for the months from October 2020 to the end of March 2021 confirmed, with revenues around 50 times higher than in any other year in RIIO-GT1. Forecast projections showed that it was very likely that similar high revenue contributions to the CCM performance measure would occur in RIIO-GT2 and that the cap for the incentive in RIIO-GT2 would also be reached.

We said we would review[5] the incentive in light of this. There have been two strands to this work. The first was to look at the impact of the changes for the regulatory year 2020/21, the last year of RIIO-GT1, and we published our decision on this on 5 August 2021.[6] The second part was to review the CCM incentive for RIIO-GT2. We have now concluded this, and we set out our conclusions below, including our decision.

Assessing the impact of higher revenues

Our analysis has centred on collecting and analysing data and developing projections of the revenues to be expected in 2021/2022, and for the remaining years of RIIO-GT2, based on the user behaviour seen since October 2020. NGG has engaged proactively with us to carry out the review and identify potential remedies. We have worked closely with NGG to develop an approach to achieve the following outcomes, consistent with the aims we set out for our review of NGG's performance in 2020/2021:

- neutralise the unintended consequences on the incentive as a result of the changes to gas transmission charges introduced in October 2020
- not fundamentally change the purpose of the incentive (in encouraging NGG to release discretionary capacity whilst taking due account of risk and reward in the way that it manages potential constraints)
- be transparent and understandable

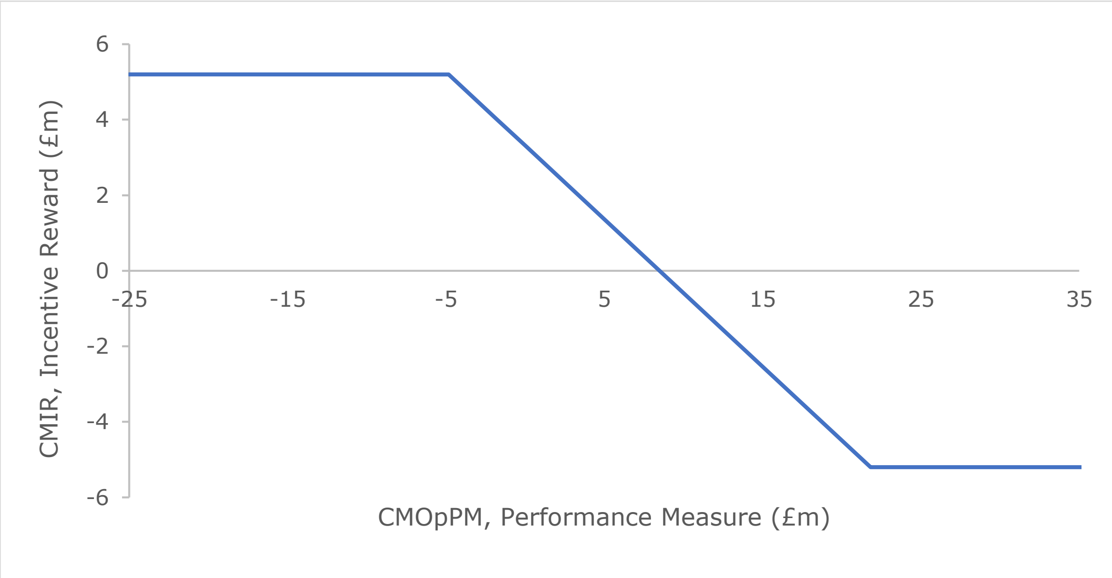
[4] Our review letter, 'Implementing the Capacity Constraint Management incentive as part of the National Grid Gas plc Gas Transporter Licence for RIIO-GT2', can be found at the link here: https://www.ofgem.gov.uk/system/files/docs/2021/02/riio-gt2_ccm_incentive_review_letter_0.pdf
[5] In accordance with NGG's Gas Transporter Licence: Special Condition 5.5 (Entry Capacity and Exit Capacity Constraint Management (CM_t)), Part K: https://epr.ofgem.gov.uk//Content/Documents/National%20Grid%20Gas%20Plc%20-%20Special%20Conditions%20Consolidated%20-%20Current%20Version.pdf
[6] Our decision on the RIIO-GT1 changes can be found at the link here: https://www.ofgem.gov.uk/publications/modification-national-grid-gas-plc-ngg-gas-transporter-licence-change-part-special-condition-714

- preserve the structure of the incentive as described in our RIIO-GT2 Final Determination as far as possible, by finessing the calculation formula so that it continues to provide an effective incentive on NGG.

Structure of the incentive in RIIO-GT2

The RIIO-GT2 CCM Incentive ("the incentive") features a sliding scale as illustrated below:

Figure 1: RIIO-GT2 Constraint Management incentive function



A performance measure, known as CMOpPM in the licence, is calculated as the net figure of relevant costs less relevant revenues.

NGG's financial outcome from the incentive is determined from the CMOpPM value which serves as the performance measure. The incentive increases NGG's revenues when the performance measure (CMOpPM) is less than £8.5m and reduces NGG's revenues if the performance measure is higher than £8.5m. The incentive outcome is capped and collared at £5.2m and £-5.2m respectively.[7] The incentive outcome is reflected in revenue allowances in a subsequent year and is subject to a time value of money adjustment.

Figure 1 above shows the Constraint Management incentive reward (CMIR, in £m) against NGG's operational performance measure (CMOpPM). For RIIO-GT2, the incentive is set out in NGG's licence under Special Condition 5.5 (Entry Capacity and Exit Capacity Constraint Management (CM_t)), where CMOpPM is derived in accordance with the following formula:

$$CMOpPM_t = CMOpC_t - ExBBCNLRA_t - RODEC_t - RIEC_t + RFIEC_t - (RNOEC_t - RAREnCA_t) - RLOC_t - ROPExC_t + RFOPExC_t - RNOExC_t - RODExC_t - RADD_t$$

[7] These parameters are as set out in our Final Determinations for RIIO-GT2.

where:

$CMOpC_t$ - is the term for direct costs of NGG's Constraint Management activity;

$ExBBCNLRA_t$ - is the buyback cost to address Exit overruns, or where the maximum offtake rate is exceeded or because of a notified planned maintenance day;

$RODEC_t$ - is the revenue derived by the licensee from on-the-Day sales of Obligated Entry Capacity;

$RIEC_t$ - is the revenue derived by the licensee from the sale of Interruptible Entry Capacity;

$RFIEC_t$ - Revenue from curtailed Interruptible Entry capacity;

$RNOEC_t$ - is the revenue derived by the licensee from sales of Non-Obligated Entry Capacity;

$RAREnCA_t$ - revenue from the accelerated release of Incremental Obligated Entry Capacity (via the sale of Non-Obligated Entry Capacity) at an NTS Entry Point;

$RLOC_t$ - is the revenue derived by the licensee from Locational Sell Actions and Physical Renomination Incentive charges;

$ROPExC_t$ - is the revenue derived by the licensee from the sale of Off-Peak Exit Capacity;

$RFOPExC_t$ - is revenue from sale of curtailed Off-Peak Exit Capacity;

$RNOExC_t$ - is the revenue derived by the licensee from the sale of Non-Obligated Exit Capacity;

$RODExC_t$ - is the revenue derived by the licensee from on-the-Day sales of Obligated Exit Capacity; and

$RADD_t$ - is any further revenues derived by the licensee that the Authority has directed the licensee to include in the $CMOpPM_t$ operational performance measure.

Two components ($CMOpC_t$ and $RARENCA_t$) contribute directly to the measure of costs. The other components effectively offset these "costs" as revenues.

Eight of the offsetting revenue components of the formula increased significantly as a result of the October 2020 pricing changes:

Figure 2: Relevant revenue streams that increased significantly following the October 2020 pricing changes

Licence term		Description
Entry Capacity	RODECt	On-the-Day obligated entry capacity
	RIECt	Interruptible entry capacity
	RNOECt	Non-obligated entry capacity
	RFIECt	Revenue from curtailed Interruptible Entry Capacity
Exit Capacity	ROPExCt	Off-peak exit capacity
	RNOExCt	Non-obligated exit capacity
	RODExCt	On-the-Day obligated exit capacity
	RFOPExCt	Revenue from sale of curtailed Off-Peak Exit Capacity

It is the contribution of revenues from these capacity terms which has been the principal focus of our review.[8]

Our Analysis

Analysis shows that the revenues feeding through the performance measure into the incentive calculation are significantly larger than previously anticipated. This is the result of the pricing impacts of the new charging arrangements applicable from 1 October 2020 and consequential behavioural changes.

We have therefore assessed the relevance of continuing to include the revenue streams, especially where the revenue is associated with on-the-day capacity or with interruptible capacity.

Prior to 1 October 2020, most on-the-day obligated capacity (RODEC and RODExC) was sold at 100% discount, and so the resulting revenues did not contribute materially to the performance measure, nor the incentive outcome. It is no longer appropriate for this capacity to contribute to the performance measure. To continue to do so would reward NGG for releasing on-the-day obligated capacity because of the price changes introduced via UNC678A; something which was not envisaged when the incentive was first drawn up. Our proposal is to remove the revenues that arise from sale of obligated on-the-day entry and exit capacity from the calculation of the CCM performance measure.

Interruptible capacity, by its nature, does not materially affect the risk/reward balance since it can be curtailed at no cost by NGG. For RIIO-GT2, we decided to remove the revenue arising from interruptible entry capacity and off-peak exit capacity where NGG has scaled back capacity in order to manage potential system constraints.

[8] In comparison to RIIO-GT1, some changes were introduced for RIIO-GT2 from 1 April 2021; revenue from entry overrun charges and the sale of interruptible/off-peak capacity where NGG scales back capacity no longer feed into the CCM incentive. However, these changes were not designed to offset the higher than anticipated revenues that have occurred.

We now propose to remove the interruptible and off-peak capacity contributions to the performance measure. This means that revenue from curtailed interruptible entry and off-peak exit capacity will no longer be relevant and these terms will be removed from the performance measure as well.

The remaining components of revenue from sale of capacity is associated with the release of non-obligated capacity (RNOEC and RNOExC). It is appropriate for non-obligated capacity to continue to contribute to the CCM performance measure. NGG exercises discretion about when, where and how much non-obligated capacity it releases. This requires it to assess the reward of additional revenue against the risk of any consequential increase in constraint management costs. Thus, the incentive needs to encourage the release of discretionary capacity in response to market demand whilst having regard to any consequential constraint risk.

However, as a result of the change in capacity prices seen since the introduction of UNC678A, it is clear that allowing the full value of these revenues to be used in the calculation would generate values which would reward NGG excessively. To avoid this unintended consequence, it is necessary to scale back the amount of revenue from non-obligated capacity which feeds into the CCM calculation.

We have concluded that the following considerations need to be applied to the recalibration of the incentive:

- current revenues arising post-October 2020 are too large to contribute on a 1:1 revenue basis into the performance measure
- the four largest cashflows currently contributing to the $CMOpPM_t$ term (interruptible and off-peak capacity and on-the-day obligated capacity (Entry and Exit)) will be removed
- the removal of the revenues for interruptible and off-peak capacity renders the adjustments for curtailed interruptible entry capacity and curtailed off-peak exit capacity redundant and so these terms are to be removed
- non-obligated capacity release should continue to contribute in some way to the $CMOpPM_t$.
- we can recalibrate CCM rather than fundamentally change its structure.

We explain our proposed revenue scaling approach for non-obligated capacity below.

Treatment of non-obligated capacity under the incentive in RIIO-GT2

To define the scaling factor, we looked at the actual and expected revenues which we have seen since October 2020. The cashflows associated with non-obligated capacity are shown in Figure 3 below (for Gas Year[9] 2020/21 up to and including May 2021[10]).

[9] Capacity reserve prices are published annually for the Gas Year commencing on 1 October.
[10] This table is derived from data supplied by NGG which reflects the revenue associated with the reserve price.

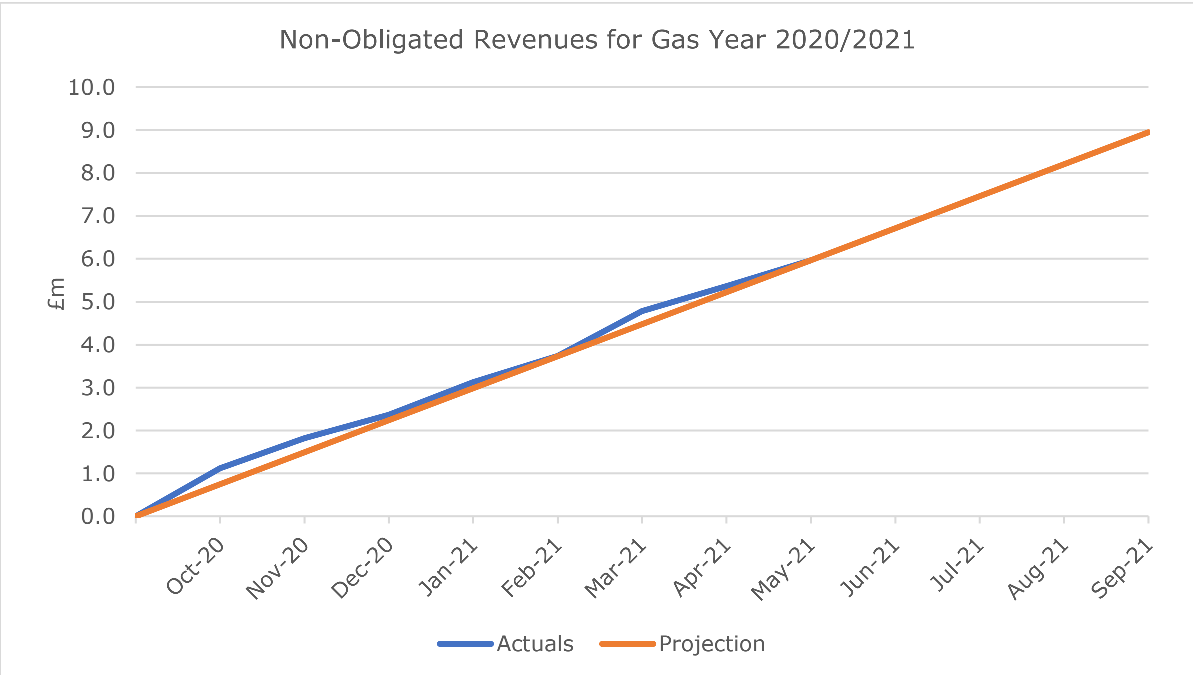
Figure 3: Non-obligated capacity revenue streams for Gas Year 2020/2021

Month	Short-term Entry (£m)	Long-term Entry (£m)	Short-term Exit (£m)	Long-term Exit (£m)	Total (£m)
Oct-20	0.005	0.162	0.798	0.153	**1.119**
Nov-20	0.046	0.157	0.351	0.148	**0.703**
Dec-20	0.000	0.162	0.229	0.153	**0.544**
Jan-21	0.038	0.162	0.407	0.153	**0.760**
Feb-21	0.064	0.146	0.259	0.139	**0.608**
Mar-21	0.246	0.162	0.483	0.153	**1.045**
Apr-21	0.012	0.157	0.265	0.148	**0.582**
May-21	0.005	0.162	0.290	0.153	**0.610**
Totals	**0.416**	**1.271**	**3.081**	**1.202**	**5.970**

We note that whilst there is variability in short term non-obligated revenues the long-term capacity component appears stable and less variable. Therefore, we consider that the sum of the non-obligated revenues over October 2020 to May 2021 provides an acceptable indicator of an expected revenue stream for RIIO-GT2 (assuming the application of Gas Year 2020/2021 reserve prices) to inform the recalibration of the incentive.

These values, considered in annual terms, suggest that the revenues will be significantly higher than the average seen during RIIO-GT1 or that used as an estimate when setting the incentive parameters in RIIO-GT2 Final Determinations. Alternative forecasts could be derived but would be dependent upon the assumptions around both the anticipated non-obligated prices and volumes.

Figure 4: Non-obligated revenues observed in Gas Year 2020/2021



In this regard, we are in a similar situation to that when setting the incentive parameters for RIIO-GT2, where we used historic performance as a proxy for the projected revenue streams which could reasonably be expected. Figure 5 below summarises possible scaling factors which we considered for non-obligated capacity revenues:

Figure 5: Scaling from 5% to no scaling

Licence term	Description
No Scaling	This is the current value: the outcome will far exceed the cap on the incentive – would deliver no meaningful incentive
50%	Outcome would likely be at the cap of the performance range leading to a high probability that cap will be achieved in many years with very diminished incentives to continue to release non-obligated capacity
15%	Outcome in respect of revenues contributing to the incentive at the upper end of Ofgem's expectation of what might be possible in any year – likely to lead to gain in average per year, compared with expectations at time of RIIO-GT2 CCM setting
5%	In line with the lower end of expectations at the time of setting RIIO-GT2 CCM incentive

From the above we can infer that the revenue contribution from the sale of non-obligated entry and exit capacity should be scaled back to 5% - 15% to feed into the incentive calculation. Our analysis suggests that a scaling factor in this range would be necessary to deliver a recalibration consistent with expectations at the time of RIIO-GT2 Final Determinations. This would be in line with preserving the nature of the incentive and with maintaining the risk/reward profile associated with release of non-obligated capacity.

We further refined our approach and included a calculation of the weighted average reserve price of the capacity products which takes account of relative levels of non-obligated capacity prices pre and post the changes seen via the introduction UNC0678A. We then applied a volume correction to the calculation, recognising that the pricing change will have induced material changes in booking behaviours by shippers, which is borne out by the changes in volumes we have witnessed.

We have therefore sought to define a methodology that reflects observed experience since the introduction of the pricing change, and which reflects both the direct pricing effect and the consequential behavioural effects. We have also recognised that pricing levels confirmed for Gas Year 2021/2022 imply significant increases in underlying reserve prices whilst storage entry and entry points will also attract larger discounts from 1 October 2021.[11] We have also accounted for NGG's indicative prices for later Gas Years.

Whilst there is considerable uncertainty about non-obligated capacity booking outcomes, we consider that the incentive should be recalibrated using information that is already available and consistent with a reasonable expectations principle and the factors described above.

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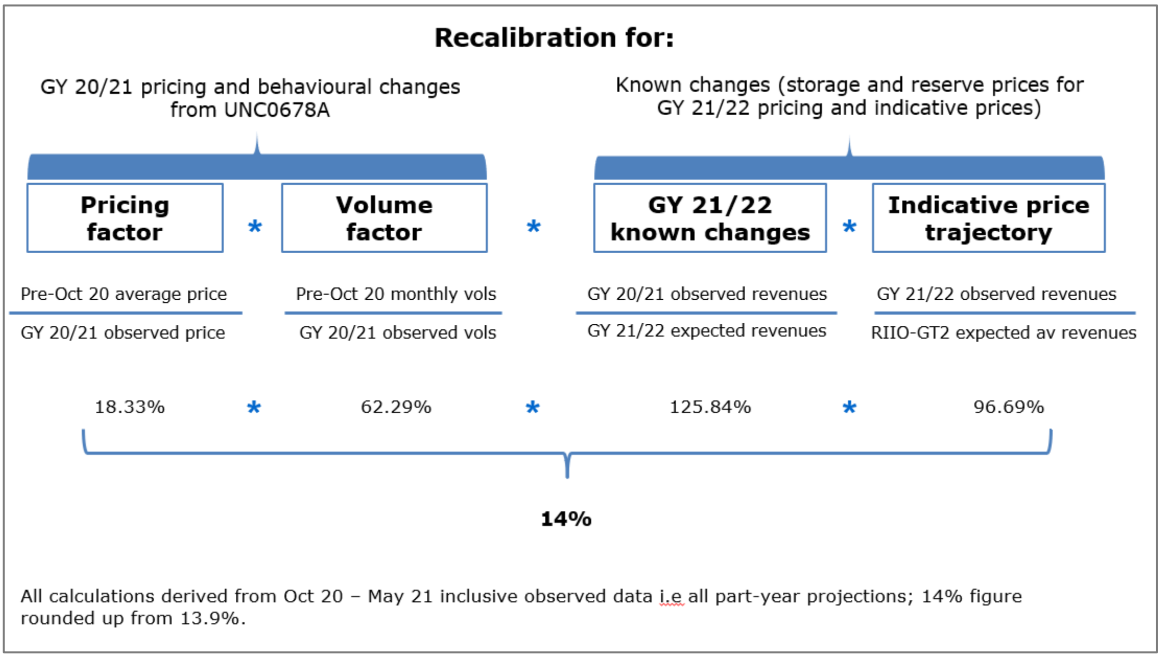
[11] The decision related to this storage discount can be found here: https://www.ofgem.gov.uk/sites/default/files/2021-07/UNC729%20Applying%20a%20discount%20to%20the%20Revenue%20Recovery%20Charge%20at%20Storage%20Points%20-%20Decision.pdf

Taking account of all the above we illustrate our determination of the relevant scaling factor to the applied to the non-obligated capacity allocated bid price[12] as a contribution towards the performance measure.

Figure 6: Defining the non-obligated revenue scaling factor



We have carefully considered the above in the context of the fundamental objective of the CCM incentive. Specifically, we note that the incentive needs to encourage the release of discretionary capacity in response to market demand whilst having regard to any consequential constraint risk, and thus aligning the interests of NGG with consumers.

We assess that the scaling factor is sufficiently large to motivate NGG's release of discretionary capacity in so far as we have seen many instances where much lower pricing levels, prior to the introduction of UNC678A (e.g. 0.0001 and 0.0002 p/kWh) have been sufficient to generate discretionary release of capacity.

We note that in the absence of constraint management costs, the incentive outcome is likely to be in the upper quartile of the incentive range. The incentive aligns the interest of NGG and stakeholders in respect of both the release of non-obligated capacity and in the downside capacity constraint risk management. It is unlikely that NGG will hit the cap and so we believe it will be adequately incentivised to optimise its position and hence ensure the release of non-obligated capacity when called upon to do so. We also expect that NGG will be within the active range of the incentive. The incentive also promotes NGG's active capacity constraint management over a wide range of constraint management scenarios.

Our decision is therefore that a scaling factor of 14% of the allocated bid price be applied to the revenues from the sale of non-obligated entry and exit capacity

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[12] In nearly all instances the allocated bid price has been at the reserve price, although in principle it could be higher. We have used the reserve price as the basis of our analysis.

which feeds into the CCM incentive calculation for RIIO-GT2. This will take effect from 1 April 2021.

This represents a realistic and pragmatic outcome of our CCM review, which takes known changes in capacity prices and volumes fully into account and preserves the integrity of the CCM incentive as set out in our RIIO-GT2 Final Determinations.

In summary we are proposing to make the following adjustments to the calculation of the CCM incentive for RIIO-GT2:

Figure 7: Summary of changes

Licence term	Description	Treatment under the incentive
$RODEC_t$	On-the-Day obligated entry capacity	*Removed from calculation*
$RIEC_t$	Interruptible entry capacity	*Removed from calculation*
$RNOEC_t$	Non-obligated entry capacity	*Revenue contribution scaled back to 14% of allocated bid price*
$RFIEC_t$	Revenue from curtailed Interruptible Entry Capacity	*No longer applicable*
$ROPExC_t$	Off-peak exit capacity	*Removed from calculation*
$RNOExC_t$	Non-obligated exit capacity	*Revenue contribution scaled back to 14% of allocated bid price*
$RODExC_t$	On-the-Day obligated exit capacity	*Removed from calculation*
$RFOPExC_t$	Revenue from sale of curtailed Off-Peak Exit Capacity	*No longer applicable*

We believe that these changes will preserve the integrity of the CCM incentive and are consistent with the overall intent in terms of the trade-off between risk and reward when it was set for RIIO-GT2 in our Final Determinations. We do not see any evidence to contemplate other changes and therefore the other parameters set for the CCM incentive, such as the target cost, the performance cap and collar, remain unchanged. Additionally, we will retain the clause within the licence to review this incentive if the cap of the incentive is hit in two consecutive years, or the collar hit in one year (or where the Authority expects either to occur).

We are consulting on changing NGG's Gas Transporter licence alongside this letter to give effect to these adjustments.

Yours sincerely,

David O'Neill

Energy Systems Management and Security, Head of Gas Markets and Systems