All interested parties

Date: 18 June 2021

Dear colleague,

Adjustment of National Grid Gas Plc (NGG) Capacity Constraint Management performance value for 2020/21 as part of NGG's Incentive for RIIO-GT1

Executive Summary

The introduction of changes to the gas transmission charging regime in October 2020 (via 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 for these capacity products being sold since October 2020, the revenues from the sale of these products were much higher and some of these revenues in turn led to the calculation of a significantly higher return for NGG from its capacity constraint management (CCM) incentive. This has distorted its incentive performance in year 2020/21 and if no action is taken this will result in a substantial windfall gain for NGG.

We[2] undertook analysis in order to forecast what level of performance might reasonably have been expected based on trends in recent years, and to neutralise the charging impacts. Using this analysis, we have calculated that the windfall for NGG would be £9.385m (in 2009/10 prices),[3] if no action was taken.

We therefore intend to amend NGG's Gas Transporter Licence to remove the windfall earnings from the calculation of the CCM incentive return in 2020/21. We will consult on the licence changes to implement this decision.

Background

On 3 February 2021 we published an open 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 October 2020. We said that we

[1] See our final decision on UNC678/A/B/C/D/E/F/G/H/I/J (28 May 2020) at: https://www.ofgem.gov.uk/publicationsand-updates/amendments-gas-transmission-charging-regime-decision-and-final-impact-assessment-unc678abcdefghij

[2] The terms "the Authority", "we" and "us" are used interchangeably in this document.

[3] This figure, when inflated for time value of money and inflation, would be approximately £13m in 2020/21 prices and £15m as a revenue adjustment in 2022/23.

[4] Our 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

would review the CCM incentive in light of the changes to the operation of 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 within day entry capacity was sold in auctions which had a zero reserve price). Historically, these capacity products contributed low cashflows 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 CCM incentive reached its maximum cap for regulatory year 2020/21, which the data for the months from October 2020 to the end of March 2021 has confirmed, with revenues around 50 times higher than in any other year in RIIO-GT1.

We said we would review the incentive in the 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, and the second was to review the CCM incentive for RIIO-GT2. NGG has been proactively engaging with us in this process, and we have now completed the first part of this work and our conclusions are set out in this letter.

We are undertaking further analysis on the CCM incentive for RIIO-GT2 and we will report on the outcome of that review separately.

Assessing the impact of higher revenues for 2020/2021

Our analysis has centred on collecting and analysing data, looking at both volumes and cashflows going back to April 2017. We have worked closely with NGG to ensure that the data provided was reliable and validated for the whole of this period. This has provided a solid data set over four winters of gas flows, including the severe weather event of the Beast from the East in March 2018. With our consultants, we have carried out analysis and modelling to arrive at a forecast of what a reasonable expectation of performance against the incentive might have been for the year 2020/21, having regard to the trends and behaviours seen in the period up to the end of September 2020.

Our approach was based on arriving at a fair value based on reasonable assumptions and that any adjustments identified should satisfy the following:

- neutralise the effects of the changes to gas transmission charges introduced in October 2020 for the final year of RIIO-GT1;
- not fundamentally change the purpose of the incentive (in encouraging NGG to release capacity whilst taking due account of risk and reward in the way that it manages potential constraints); and
- be transparent and understandable.

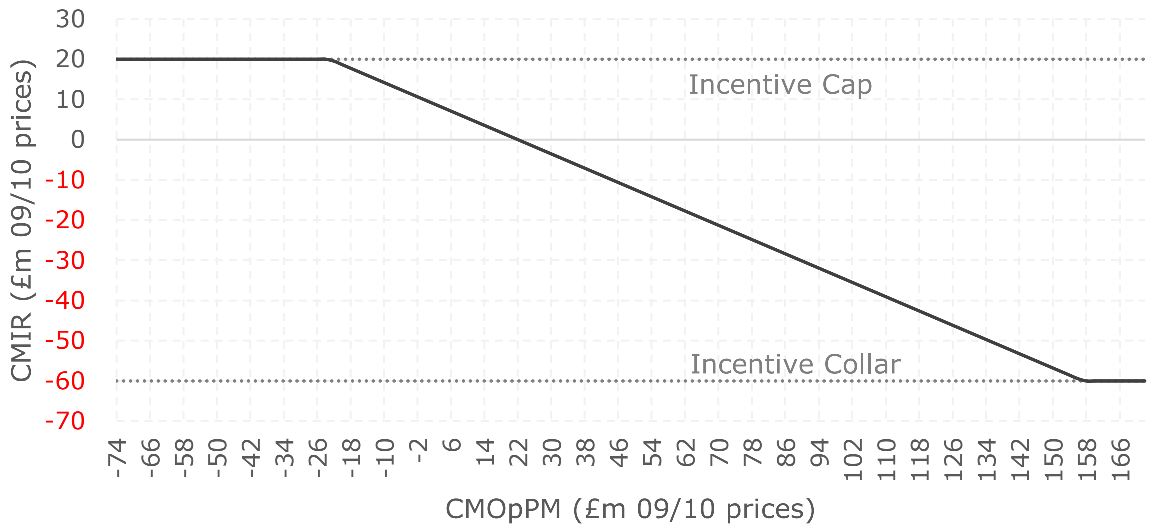
Our analysis has identified that NGG would earn much higher revenues since the changes to capacity prices as a result of the introduction of UNC678A from 1 October 2020 and we calculate a windfall for NGG of £9.385m (09/10 prices). When inflated for time value of money and inflation this is approximately £15m as a revenue adjustment in 2022/23. This reflects the difference between the incentive cap and a reasonable expectation of performance.

We explain the analysis below.

Methodology and the relevant licence condition

The RIIO-GT1 CCM Incentive features a sliding scale with a performance measure, known as CMOpPM in the licence, which is a net figure based on costs compared to revenues. The Constraint Management incentive revenue (CMIR in the licence) is calculated in accordance with the CMOpPM value, with the CMIR reward and penalty capped and collared respectively as illustrated in Figure 1 below:

Figure 1: Constraint Management incentive revenue (CMIR) by the incentive performance measure (CMOpPM) in 09/10 prices[5]



The above chart shows the outcome of the CMIR term given a value of CMOpPM in 2009/10 prices. With no action taken on the impacts of UNC678A, NGG would achieve the maximum CMIR value of £20m (in 09/10 prices). This value is then inflated by the PVF and RPIF[6] terms, which are still provisional, but approximately £30m in 2022/23.

For RIIO-GT1, the incentive was defined in Special Condition 3B Entry Capacity and Exit Capacity Constraint Management of NGG's Gas Transporter licence. This licence describes the performance measure as $CMOpPM_t$, and this defines a net cost[7] based upon 12 elements:

Special Condition 3B Part H: Formula for the Constraint Management operational performance measure ($CMOpPM_t$):

$$\boxed{\begin{aligned} CMOpPM_t = {} & CMOpC_t - ExBBCNLRA_t - RODEC_t - RIEC_t - (RNOEC_t - RAREnCA_t) \\ & - RCOR_t - RLOC_t - ROPExC_t - RNOExC_t - RODExC_t - RADD_t \end{aligned}}$$

[5] The values of CMIR in this chart are displayed before the value of PVF is applied. PVF increases CMIR to compensate for the time value of money due to a two year time lag in CMIR's calculation, and depends on the CMIR year being calculated.

[6] As values in RIIO-GT1 were mostly based on 2009/10 constant prices, RPIF is applied as a forecast of the Retail Prices Index from 2009/10 to the relevant Regulatory Year, and used as a forecast within the Constraint Management incentive calculations. PVF is explained in the note above.

[7] The calculations for the CCM incentive for formula year 2020/21 are outlined in Part F of the RIIO-GT1 NGG Gas Transporter Licence, Special Condition 3B.21 (Formula for the Constraint Management incentive revenue ($CMIR_t$)). The CCM incentive and its calculations for RIIO-GT2 are now written in the NGG Gas Transporter Licence, Special Condition 5.5 (Entry Capacity and Exit Capacity Constraint Management (CMt)) for RIIO-GT2. However, due to a two year lag that is in place for calculating the CMIR term, Special Condition 7.14 (Close out of the RIIO-GT1 Entry Capacity and Exit Capacity Constraint Management incentive revenue ($LCMIR_t$)) outlines the CMIR calculations in respect of the final two Regulatory Years in RIIO-GT1.

Two components contribute directly to the measure of costs, with the other ten components effectively offsetting these "costs" as revenues. The experience under RIIO-GT1 shows that the effect of offsetting terms is likely to contribute to the performance measure having a negative value.

The first two elements are:

- $CMOpC_t$ - direct costs of NGG's Constraint Management activity
- $RARENCA_t$ - revenue from the accelerated release of Incremental Obligated Entry Capacity (via the sale of Non-Obligated Entry Capacity) at an NTS Entry Point.

Whilst direct costs of NGG's Constraint Management activities have occurred during RIIO-GT1 no monies have arisen through the second element within the RIIO-GT1 period.

The ten "offsetting elements" are considered below. The first three are:

- $ExBBCNLRA_t$ which is the buyback cost which users are liable to reimburse NGG (e.g. as a result of overruns, where the maximum offtake rate is exceeded or because of a notified planned maintenance day)
- $RADD_t$ is a term that covers any further revenues derived by NGG that the Authority may direct to include in the CCM performance measure[8]
- $RLOC_t$ is the revenue from locational sell actions and physical renomination charges

The first two terms are zero, whereas the $RLOC_t$ term represents the revenues associated with locational sell actions, and these are included in the data set.

The other seven components have been materially affected by the recent pricing change and comprise the following:

Figure 2: Relevant revenue streams

	Licence term	Description
Entry Overrun	RCORt	Entry capacity overrun charges
Entry Capacity	RODECt	On the Day obligated entry capacity
	RIECt	Interruptible entry capacity
	RNOECt	Non-obligated entry capacity
Exit Capacity	ROPExCt	Off-peak exit capacity
	RNOExCt	Non-obligated exit capacity
	RODExCt	On the Day obligated exit capacity

The October 2020 change in gas transmission capacity prices resulted in significant changes to shipper booking behaviours. Whilst in general booking levels have decreased significantly, it is important to recognise that very high amounts of capacity were being

[8] No such direction was made during RIIO-GT1.

purchased prior to the recent pricing methodology changes.[9] However, whilst bookings have decreased many of the revenue streams have dramatically increased in the CCM incentive because of the elimination of the availability of zero priced capacity and the general increase in underlying capacity prices.

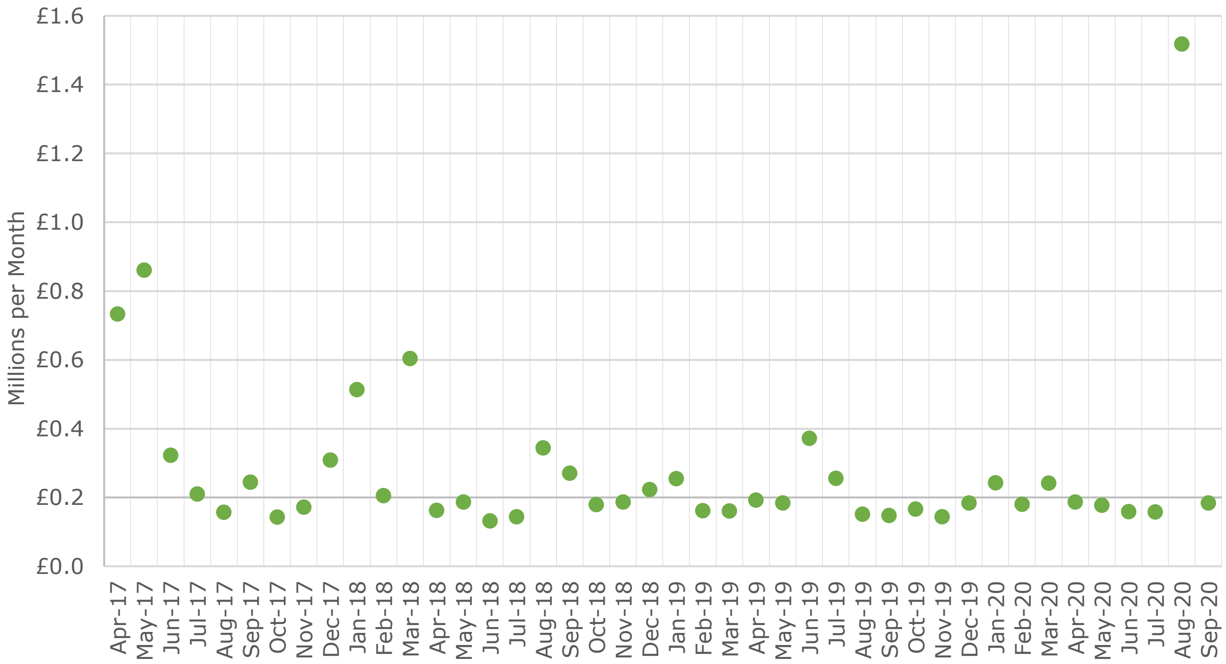
Analysis of the data

We used historical data provided by NGG to identify a reasonable expectation of NGG's performance under the CCM incentive had the pricing change not taken place. Our approach sought to assess the impact upon the outturn incentive reward for NGG associated with the change in the impacted revenue streams.[10] We used this forecast performance measure to calculate the difference between the forecast performance and the cap.[11] This identified the adjustment to NGG's incentive performance arising from the year 2020/21 that needs to be made.

We requested data from NGG covering monthly values for the seven relevant revenue streams between April 2017 – September 2020, and from October 2020 to the end of the regulatory year in March 2021. This data includes quantities (kWh), revenues (£) and numbers of bids. These have been analysed with a view to understanding underlying trends and extent of variation between years. The data has been validated by NGG to provide assurance about its accuracy. NGG has also provided relevant data associated with constraint management contract costs (which feed into $CMOpC_t$) and revenues from locational sells ($RLOC_t$).

The aggregate revenue from the seven relevant revenue streams is shown in Figure 3:

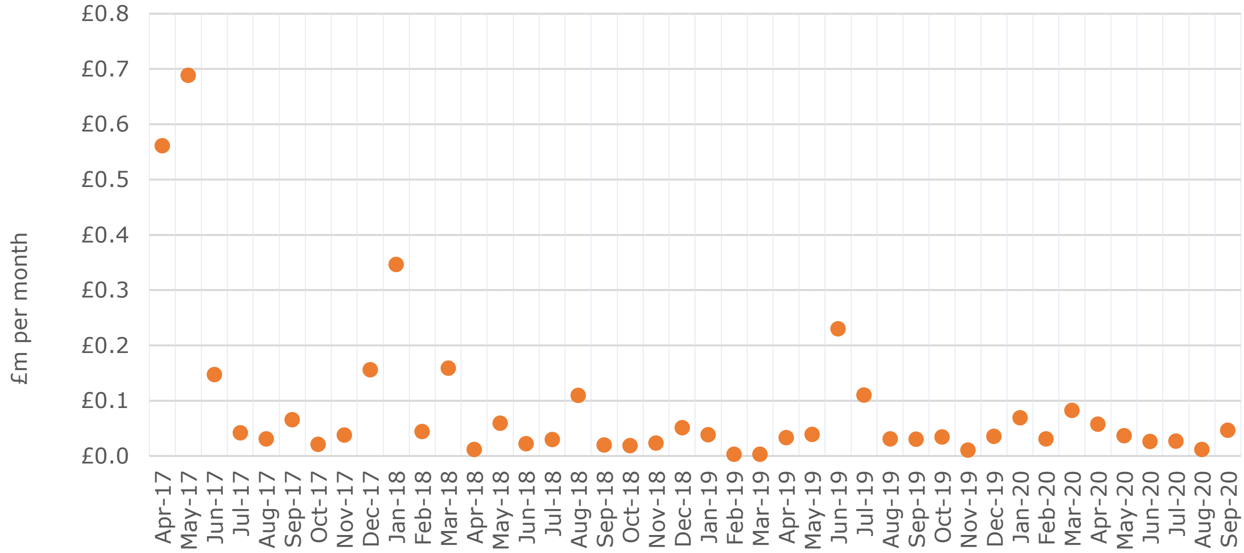
Figure 3: Aggregate monthly value of the seven revenue streams



[9] The capacity levels were far greater than many users could have used, as evidenced by the over purchasing of capacity at zero or negligible prices.
[10] The financial values of the seven impacted revenue streams by month are included in Appendix A.
[11] The additional revenues arising as a result of the October price change would have taken NGG's performance to the cap.

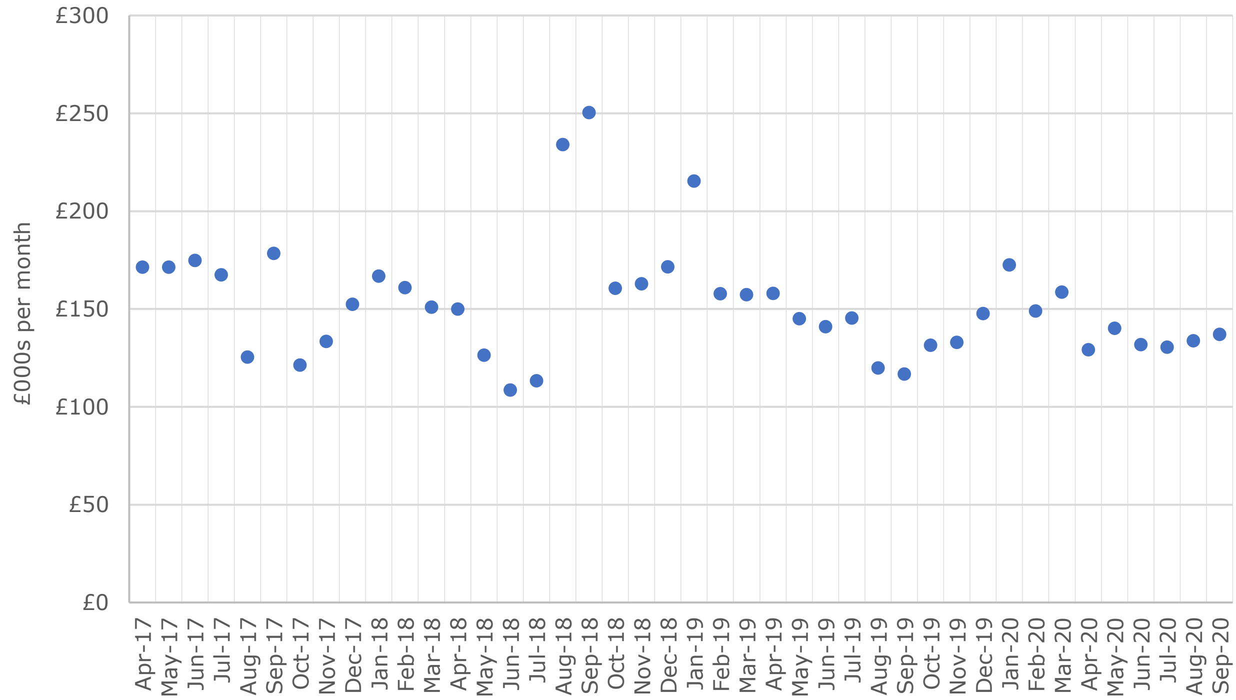
Analysis shows an anomaly in August 2020 arising from an erroneous bid in a within day auction, and this has been discounted from the trend analysis. Over the 42-month period the largest contribution to these revenues was from entry overrun charges and these have been further analysed separately. The revenues from entry overruns are shown in Figure 4 below:

Figure 4: Entry Overrun (RCOR) Revenue



The aggregate revenues, excluding overruns, are illustrated in Figure 5 below:

Figure 5: Relevant revenues (excluding overruns)



Examination of the data suggests that four months appear to have abnormally large entry overrun revenues[12], and three of these all occur in one year: 2017/18. Consistent with NGG's RIIO-GT2 business plan submission, we consider that NGG should not benefit unduly from entry overrun charges and so have removed these four months[13] from the data for the purpose of our analysis.

As we observed for the other six relevant revenue streams, no clear trend is apparent in the entry overrun financials. Therefore, we have calculated the monthly average, after eliminating the four excessive values, and these averages have been used to determine the reasonable expectation of performance for 2020/21.

There are other outliers in the data set from other revenue streams, but we consider these are of lesser significance and not exceptional, so they have not been excluded. This approach is both a fit-for-purpose and pragmatic way to calculate the reasonable expectation for the CCM performance measure. The results of this calculation are as follows:

Figure 6: Calculation of a reasonable expectation for the relevant revenue streams in 2020/21

CCM Revenue Streams	RODEC	RIEC	RNOEC	RODExC	ROPExC	RNOExC	RCOR	Total
Totals (Apr 17-Sep 20)	£2,167,556	£1,706,727	£466,457	£613,819	£9,624	£3,108,639	£3,634,642	£11,707,464
Annual Average (Apr 17-Sep 20)	£619,302	£487,636	£133,273	£175,377	£2,750	£888,182	£1,038,469	£3,344,990
Adjustments (£)	£1,363,432						£1,826,634	
Months	1						4	
"Reasonable Expectation"	**£235,353**	**£487,636**	**£133,273**	**£175,377**	**£2,750**	**£888,182**	**£643,680**	**£2,566,253**

From this analysis, we have calculated a forecast for the revenues that might have been expected to feed into the calculation of the CCM incentive related to 2020/21 performance. By combining the relevant costs that NGG has incurred with these revenues, we have calculated the expected performance measure, $CMOpPM_t$, to be £-2.629m for 2020/21.

Calculating the adjustment to NGG's overall CCM incentive reward for 2020/21 performance

A $CMOpPM_{2020/21}$ value of -£2.629m (i.e. a net revenue of £2.629m in 2020/21) is equal to –£1.929m in 09/10 prices (dividing by an RPI factor of 1.363).[14] This performance would yield an incentive reward outcome of £10.615m (2009/10 prices, not adjusted for time value of money).[15]

[12] These can be seen in Appendix A and correspond to Apr-17, May-17, Jan-18 and Jun-19

[13] Entry overruns still contribute to the performance measure under RIIO-GT1 and so that continues, however expected outcomes should not anticipate such excessive levels of overrun monies.

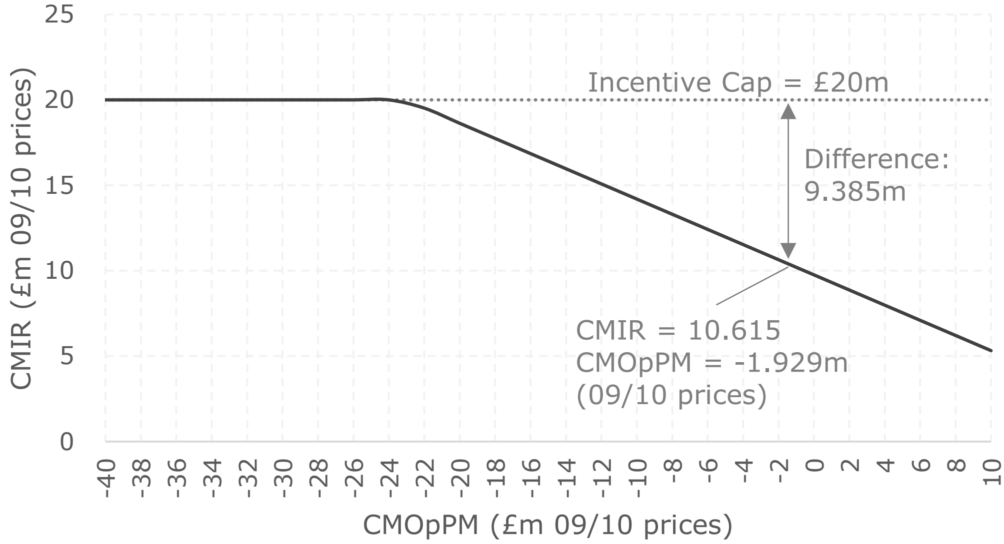
[14] This use of this RPI factor is outlined in the calculations under Part F of the RIIO-GT1 NGG Gas Transporter Licence, Special Condition 3B.21, where the $CMOpPM_{t-2}$ is divided by the value of $RPIA_{t-2}$ which is 1.363 for Regulatory Year 2020/21.

[15] This is based on our reasonable expectation of values, with the perceived windfall of £9.385m representing the difference between this performance figure of £10.615m and the cap of £20m (09/10 prices).

The increased revenue streams seen during 2020/21, from 1 October 2020 onwards, already move the performance measure far beyond the active range of the incentive and so, without any adjustment, NGG would have been rewarded the incentive reward cap of £20m in 09/10 prices (around £30m following inflation and time value adjustments to 2022/23).

A reasonable assessment of the windfall gain under the RIIO-GT1 CCM for 2020/21 arising from the effects of the 1 October 2020 pricing regime change is therefore £9.385m (2009/10 prices), which when inflated by time value of money and inflation would be a revenue adjustment of approximately £15m in 2022/23. This is illustrated in Figure 7 below.

Figure 7: "Windfall adjustment" calculation to CMIR by CMOpPM (09/10 Prices)



Next steps

The changes we have seen as a result of the introduction of UNC678A have had a distortive effect on the CCM incentive, which would lead to higher prices in 2022/23 to the detriment of consumers. If this is not addressed, this would also result in a windfall gain for NGG – a gain unrelated to performance.

We therefore intend to adjust the calculation of this incentive to remove this windfall gain by modifying Special Condition 7.14 of NGG's licence via a statutory consultation. Because of a two year lag in calculating this incentive, performance in 2020/21 is not reflected in revenue until 2022/23. The changes will require that -£2.629m is used for the 2020/21 value of $CMOpPM_t$, with the rest of the calculations performed as normal.

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

Yours sincerely,

David O'Neill

Head of Gas Markets and Systems

Appendix A: Data analysed for revenue streams contributing to the CCM Incentive

Month	D_Ob_Entry_£ RODEC	Int_Entry_£ RIEC	Non_Ob_Entry_£ RNOEC	D_Ob_Exit_£ RODExC	Off_Peak_Exit_£ ROPExC	Non_ob_Exit_£ RNOExC	Entry_Oruns_£ RCOR	Total
Apr-17	£21,529	£65,531	£108	£12,421	£0	£71,828	£561,427	£732,844
May-17	£30,481	£51,643	£538	£21,880	£0	£66,893	£688,597	£860,031
Jun-17	£35,037	£50,588	£308	£24,352	£0	£64,546	£147,532	£322,363
Jul-17	£35,519	£46,984	£76	£17,801	£0	£67,181	£42,213	£209,774
Aug-17	£21,195	£18,904	£10	£18,722	£0	£66,733	£30,804	£156,368
Sep-17	£20,003	£24,092	£248	£69,518	£0	£64,609	£65,841	£244,311
Oct-17	£22,768	£33,714	£9,552	£4,533	£0	£50,811	£21,076	£142,454
Nov-17	£27,220	£43,090	£12,071	£1,924	£70	£49,132	£37,873	£171,379
Dec-17	£42,377	£45,828	£12,302	£1,183	£30	£50,773	£155,884	£308,376
Jan-18	£6,584	£51,998	£52,043	£865	£0	£55,326	£346,296	£513,113
Feb-18	£3,420	£57,718	£48,384	£1,226	£70	£50,141	£44,080	£205,039
Mar-18	£66,466	£86,895	£49,238	£157,543	£0	£84,752	£158,643	£603,537
Apr-18	£24,746	£69,943	£2	£1,732	£0	£53,542	£11,822	£161,786
May-18	£28,471	£40,355	£655	£1,725	£0	£55,326	£59,465	£185,996
Jun-18	£20,555	£23,569	£592	£1,576	£0	£62,368	£22,460	£131,120
Jul-18	£22,359	£21,937	£534	£9,594	£0	£59,001	£29,775	£143,200
Aug-18	£17,841	£23,546	£162	£64,032	£0	£128,568	£109,695	£343,843
Sep-18	£17,599	£22,532	£367	£78,432	£0	£131,592	£19,742	£270,263
Oct-18	£24,644	£47,182	£14,606	£294	£0	£73,914	£18,529	£179,168
Nov-18	£22,596	£60,877	£7,991	£222	£0	£71,267	£23,565	£186,518
Dec-18	£19,871	£63,118	£6,213	£4,435	£0	£78,064	£51,295	£222,994
Jan-19	£1,006	£53,888	£40,927	£24,196	£0	£95,514	£38,723	£254,255
Feb-19	£828	£43,005	£37,422	£7,140	£185	£69,314	£3,219	£161,114
Mar-19	£868	£43,112	£39,335	£256	£204	£73,692	£2,853	£160,320
Apr-19	£32,726	£38,012	£461	£681	£205	£86,028	£33,501	£191,614
May-19	£28,686	£41,425	£153	£1,295	£0	£73,642	£38,762	£183,963
Jun-19	£25,537	£40,718	£195	£1,782	£146	£72,743	£230,314	£371,433
Jul-19	£22,540	£41,119	£889	£497	£0	£80,458	£110,173	£255,676
Aug-19	£16,394	£29,211	£318	£119	£0	£73,974	£31,185	£151,201
Sep-19	£14,252	£30,660	£83	£572	£0	£71,267	£30,542	£147,376
Oct-19	£13,430	£28,695	£3,347	£4,853	£0	£81,297	£34,374	£165,996
Nov-19	£11,572	£34,152	£4,029	£5,277	£0	£77,969	£10,750	£143,749
Dec-19	£14,961	£39,931	£8,401	£4,018	£0	£80,508	£35,823	£183,642
Jan-20	£7,785	£34,259	£40,452	£9,621	£0	£80,511	£69,319	£241,948
Feb-20	£5,936	£29,023	£33,150	£5,608	£0	£75,314	£30,808	£179,840
Mar-20	£3,599	£31,849	£36,832	£5,827	£0	£80,566	£82,351	£241,024
Apr-20	£14,819	£29,792	£508	£4,098	£1,721	£78,289	£57,608	£186,834
May-20	£16,939	£32,114	£1,169	£6,449	£3,083	£80,508	£36,475	£176,737
Jun-20	£15,267	£30,318	£882	£5,342	£1,986	£78,138	£26,130	£158,062
Jul-20	£13,845	£30,717	£875	£3,555	£775	£80,728	£27,094	£157,587
Aug-20	£1,363,432	£47,807	£518	£12,268	£775	£80,735	£11,726	£1,517,260
Sep-20	£11,857	£26,878	£511	£16,357	£375	£81,075	£46,302	£183,355
Oct-20	£6,528,328	£9,314,890	£167,507	£930,510	£1,731,882	£951,273	£270,470	£19,894,860
Nov-20	£11,956,948	£1,429,057	£203,134	£980,473	£1,585,430	£499,903	£442,615	£17,097,561
Dec-20	£16,152,381	£1,327,853	£162,122	£1,054,621	£1,838,574	£382,371	£180,741	£21,098,663
Jan-21	£15,533,727	£687,116	£199,729	£1,096,173	£1,774,526	£560,157	£203,890	£20,055,318
Feb-21	£8,853,092	£863,527	£209,940	£787,425	£1,191,638	£397,615	£196,899	£12,500,136
Mar-21	£8,715,459	£705,041	£408,508	£904,028	£1,426,752	£636,005	£273,013	£13,068,807