Draft Determination Redacted NGET NARM annex Draft Determination Response

As a part of the NGET Draft Determination Response

nationalgrid

National Grid Electricity Transmission's (NGET) response to Ofgem's RIIO-2 Draft Determination – NARM Annex Questions

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NGET response to Ofgem's RIIO-2 Draft Determination –
NARM Annex Questions

Introduction

Whilst we share Ofgem's objectives for RIIO2, the Draft Determination (DD) for NGET as it stands is unacceptable because it fails to meet the needs of current and future consumers as well as the needs of our direct customers and broader stakeholder base. This is because the package as a whole reduces network reliability and resilience, jeopardises the pace of delivery of a net zero energy system, and erodes regulatory stability and investor confidence in the sector.

We welcome the fact that Ofgem has clearly signalled this as a consultation in which it is open to making changes based on stakeholder views and through consideration of new evidence. We note that on a number of topics Ofgem has specifically acknowledged that it is open to better options being brought forward, and potential weaknesses in current proposals. This is positive and important because we consider that a significant number of proposals are currently unacceptable and remedies are necessary for Final Determination to address serious issues identified.

We will continue to engage constructively with Ofgem and all stakeholders over the coming weeks to provide robust evidence and rationale to motivate and secure the necessary changes for Final Determination.

Navigating our response

There are eight parts to our overall response in which we provide the substantial evidence to justify and support the changes needed:

1. A short covering letter for GEMA
2. An executive summary of our response
3. A summary of key issues and proposed remedies
4. Our response to Ofgem's core DD document questions
5. Our response to Ofgem's Electricity Transmission sector document questions
6. Our response to Ofgem's NGET-specific document questions
7. **Our response to Ofgem's Network Asset Risk Metric (NARM) document questions**
8. Our response to Ofgem's Finance document questions

This document is part 7 of our overall response and provides a summary, in one place, of the major proposals across the suite of Ofgem's DD consultation documentation that are currently unacceptable to us with significant remedies necessary.

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Context

Whilst we are pleased that Ofgem has reflected the reduced volumes in the asset health draft determination within the target risk output, we are concerned over the number of errors found in the NARM determination which meant our risk target was approximately 43% lower than we have calculated. We have identified these errors in the response below, with a proposal of how to resolve them also in the text.

We do not agree with Ofgem's proposals for a NARM delivery adjustment factor (DAF), triggered on outturn spend being lower than allowances:

- It is ex-post input based regulation, and not RIIO
- It stifles innovation
- It prevents efficiencies, due to uncertainty in Ofgem's decision on what is genuine
- The calculation method is flawed, and results in random penalties
- There is adequate protection through justification of the business plan by Ofgem
- The existing over/under delivery mechanism is adequate

There has been considerable discussion within the sector specific and cross sector working groups on this matter, and we welcome the feedback that Ofgem are looking at the errors in the DAF, and are considerable alternatives mechanisms or no mechanism at all. We strongly support the removal of the DAF, with an evidence based annual reporting process which provides justification for changes in on target delivery, and explains why efficiencies delivered provide genuine long-term benefits for consumers.

NARMQ1. Do you agree with our proposals on the scope of work within each of the NARM Funding Categories and on the associated funding arrangements?

No, we do not agree with Ofgem's draft determination proposals within each of the NARM funding categories, due to significant errors identified in the NARMs tables shared with us post draft determination.

We have identified that Ofgem proposed Baseline Network Risk Outputs (R£m) do not align with the volumes that proposed as part of the DD published on 9th July. There are various issues that has led to this difference, where Ofgem have used the cost tables as the baseline for mapping to NARMs tables. Reasons for misalignment is predominantly due to the structure of the BPDT and NARMs tables. NGET fedback the reasons as part of the supplementary questions, however these have not been considered in the NARM model for DD. This has resulted in Ofgem making some incorrect assumptions to set the Baseline Network Risk Outputs.

The NGET submission proposed a long term risk benefit of R£1,709m, Ofgem DD response reflects a total of R£1,619m. The difference of R£90m is due to SF6 refurbishments being treated as repairs in BPDT (C2.5) tables as per Ofgem's Regulatory Instructions and Guidelines (RIGs). These do not match across to NARMs tables and the associated LTB is not reflected in the proposed volume.

The proposed Baseline Network Risk Output figure of R£308.17m does not align with the volume of assets allowed. Our calculations for all specifically approved interventions in the NARM A1 category is R£537.39m. The differences can be attributed to R£90.24m of SF6 interventions (as per above), R£75.87m due to mapping & averaging errors and a further R£63.11m where the assets have not been specifically assessed as part of the DD (these relate to site based asset replacement

projects such as [redacted]). This creates an overall difference of R£229.22m. The LPT2 project has been agreed with Ofgem as ring-fenced, should be categorised as A3 and the associated LTB of £47.59m should also be included under the A3 category.

The table below provides the comparison of NGET's expected Baseline Output Risk value against Ofgem's allowed volume value for each of the asset categories. Some large differences can be noted for each asset category except for OHL Conductor and OHL Fittings where values are very closely aligned.

Fig 1 : NGET submission vs. Ofgem DD Baseline Network Risk Output (R£m, 2018/19 Prices)

Asset Category	Submitted volume	DD Approved volume	Approved Volume NGET BNRO	Approved Volume Ofgem BNRO	Variance
132kV Circuit Breaker	[redacted]	[redacted]	39.75	4.88	[redacted]
132kV OHL Conductor	[redacted]	[redacted]	0	0	[redacted]
132kV OHL Fittings	[redacted]	[redacted]	35.21	35.2	[redacted]
132kV OHL Tower	[redacted]	[redacted]	-	-	[redacted]
132kV Reactor	[redacted]	[redacted]	21.69	3.67	[redacted]
132kV Transformer	[redacted]	[redacted]	3.67	0	[redacted]
132kV Underground Cable	[redacted]	[redacted]	-	-	[redacted]
275kV Circuit Breaker	[redacted]	[redacted]	5.55	0.43	[redacted]
275kV OHL Conductor	[redacted]	[redacted]	7.71	7.8	[redacted]
275kV OHL Fittings	[redacted]	[redacted]	31.556	31.35	[redacted]
275kV OHL Tower	[redacted]	[redacted]	-	-	[redacted]
275kV Reactor	[redacted]	[redacted]	2.99	2.99	[redacted]
275kV Transformer	[redacted]	[redacted]	64.02	37.97	[redacted]
275kV Underground Cable	[redacted]	[redacted]	0	0	[redacted]
400kV Circuit Breaker	[redacted]	[redacted]	2.58	1.13	[redacted]
400kV OHL Conductor	[redacted]	[redacted]	32.35	32.35	[redacted]
400kV OHL Fittings	[redacted]	[redacted]	86.97	89.28	[redacted]
400kV OHL Tower	[redacted]	[redacted]	-	-	[redacted]
400kV Reactor	[redacted]	[redacted]	5.42	5.42	[redacted]
400kV Transformer	[redacted]	[redacted]	45.50	55.7	[redacted]
400kV Underground Cable	[redacted]	[redacted]	-	-	[redacted]
CB SF6 Repair	[redacted]	[redacted]	90.24	0	[redacted]
TOTAL			**474.28**	**308.17**	[redacted]

Note: Total difference is £537.39, this includes £63.11m risk on site-based projects that are not assessed.

An in-depth analysis was carried out for each asset category and it is understood that the discrepancies noted are mainly due to the reasons below:

NGET response to Ofgem's RIIO-2 Draft Determination – NARM Annex Questions

1. Data mapping error
2. Asset voltage category misalignment
3. Averaging of the Risk output

Transformers

For the [redacted] SGTs approved, NGET's expected value is R£113.19m compared to Ofgem's value of R£97.34m resulting in a difference of R£15.85m. Three SGTs associated with the completion of the RIIO1 [redacted] project have been approved by Ofgem (Scheme Reference NGNLT2041). Although the [redacted] -approved SGTs show in the volume, in MR2.1 due to an issue in mapping 275kV disposal with 400kV replacement the associated baseline network risk output value is showing as R£0m rather than expected R£25.26m.

For projects with multiple assets and where a subset of volumes is allowed, Ofgem have used an average risk output and this resulted in variances. As the risk benefit is relevant to an actual asset level, this has caused differences on two SGT projects (Scheme NGNLT20135 and NGNLT20136). Additionally, asset categories do not align between the Ofgem Sectoral Assessment output and the risk output in 2.1_MR_Output_Table. An observed example is NGNLT20137, where [redacted] has been allowed in the Ofgem Sectoral Assessment and is classified as 'below 132kV'. In MR2.1 Output Table there is no field for below 132kV so the volume & risk is included in the 132kV category. Due to this misalignment, the allowed volume and output risk associated with replacing [redacted] is not reflected in the MR2.1 Output.

Reactors

There are [redacted] reactors approved against a submission of [redacted]. Overall, NGET proposed a reactor monetised network risk value of £41m that included two reactors at [redacted]. Ofgem have approved the two reactors at Wimbledon as part of the Circuit Breakers T1 scheme completion funding. The risk reduction for these two reactors and those connecting at below 132 kV voltage level are not included in Ofgem's proposed target.

Referring just to the [redacted] approved reactors (not including [redacted] at [redacted]), the associated network risk figures don't align with approved volumes – Ofgem DD suggests R£12m against NGET's expected R£30.1m. It is believed that this has been caused by the mismatch in linking the CV and NARMs tables. CV tables drill down to voltages 132kV and below, whereas NARMs tables rolls up 132kV for all assets 132kV or lower as per Ofgem's RIGs. This was also shared as part of the NARM SQ_1.

Circuit Breakers

NGET followed the RIGs and treated all circuit breaker SF6 interventions as 'repairs' and excluded them from the CV tables. This has resulted in the associated monetised network risk benefit not being included in the overall network risk output target.

It is noted that all CB schemes for 'replacement' are shown as 'zero' allowed volumes in 2.1_MR_Output_Table. It is also noted that an older version dated 9th December 2019 of the C4 table was used in the Ofgem's DD sectoral (volume) assessment. Within this document the following schemes for CB replacement had not been created – NGNLT20119, NGNLT20121, NGNLT20123, NGNLT20125 & NGNLT20127. These scheme references were created following an SQ and NGET submitted a revised C4 table.

The biggest difference, after SF6 repair exclusion, is in the 132kV Circuit Breaker asset category. A mapping issue has been identified for approved CBs below 132kV. As there is no field in the 2.1_MR_Output_Table for below 132kV any approved volume and associated risk benefit value does not appear in the total. An example of this is Ofgem Scheme Reference NGNLT20122 which has approved volumes that are then not shown in MR2.1

OHL Conductor

The network risk output values are very closely aligned for this asset category. Ofgem's value of R£40.15m is marginally higher compared to NGET's expected value of R£40.06m. This slight

difference is caused by the difference in the risk benefit value for Scheme NGNLT2072 associated with [redacted]) due to averaging of the risk benefit values.

Overall, there are only [redacted] schemes which were approved by Ofgem. It is noted that for Scheme NGNLT2072 Ofgem only approved [redacted] km of the submitted [redacted] km. Only one element of [redacted] km ([redacted]) was rejected. Using the averaged monetised URP of 0.163 for this project results in slightly higher value of R£7.8m against NGET's expected value is R£7.706m based on summation of individual MR values.

OHL Fittings

The network risk output values are closely aligned for this asset category with Ofgem's value being slightly higher for 400 kV. NGET's expected value is R£153.73m against Ofgem's value of R£155.83m.

The differences noted are due to the averaging of the risk benefit value and then applying the URP only to the allowed volume. For 275KV OHL Fittings, Scheme NGNLT20142, only [redacted] was approved of the [redacted]. Ofgem MR value is R£9.94m against NGET expected R£10.144m giving the difference of R£0.204m. For 400 kV OHL Fittings, a similar issue was noted for Schemes NGNLT20144 and NGNLT2074.

It is noted that this difference has only occurred for OHL Fittings which have associated OHL Conductor works.

It was noted that for the NGNLT2072 project, Ofgem has rejected the [redacted] section for OHL Conductor (referring to NGET Draft Determination Volume NGET Version.xlsx). However, this scheme has been approved for OHL Fittings work and is included in the MR calculations.

Underground Cable

Ofgem's proposed network risk target does not include the risk benefit associated with the approved 275kV underground cable replacement projects. NGET's expected LTB value is R£47.59m.

Scheme NGNLT2025 & NGNLT2064, associated with the LPT2 project, have both been approved and incorrectly listed as A1 funded in MR2.1 (These are ring-fenced and so should be A3). CV tables use the installation voltage to reflect the associated cost, however, the NARMs table reflect the risk reduction by removal of existing assets as per the RIGs. This has created a mismatch as 275kV cables are being disposed and replaced with 400kV. Therefore, the associated LTB of £47.59m is not reflected in MR2.1. This LTB needs to be considered under A3 category and should contribute towards overall network long term risk reduction.

Although in principle, we agree with the scope of work within each of the NARM funding categories the proposed BNRO will need to be recalculated to reflect the Final Determination. Utilising the risk benefit at an asset level to derive the BNRO will negate the need for the volume scaler and averaging of risk. Our recommendation would be to use the NARMs tables and not re-purpose the BPDT tables.

During T1, we have had instances where the load related driver hasn't materialised and where a strong driver exists for replacement of the asset this has been delivered under the non-load portfolio. The draft determination acknowledges that in this instance the associated risk reduction 'may' count towards the overall Network Risk Output delivery. Draft determination does not provide much clarity on what factors would be considered in assessing the movement of a project from load related to a non-load (asset health) replacement (A2 to A1).

Based on draft determination Dinorwig – Pentir cable replacement and Tyne - crossing are ring fenced and classified as A3, we believe LPT2 should also be under this category.

NARMQ2. Do you agree with the funding adjustment principles and our proposals for applying funding adjustments?

Please refer to the response below for both NARMQ2 and NARMQ3

NARMQ3. Do you agree with our proposed approached to calculating funding adjustment and to application of penalties?

(Response to both questions together)

NGET agrees that network companies should not benefit from windfall gains from uncertainties which materialise during the price control period, but disagree with the funding adjustment principles proposed by Ofgem in draft determinations.

Ofgem proposes to trigger an ex-post adjustment, using an input (cost) as a trigger if out-turn spend is lower than allowances on NARM categories. We have engaged with Ofgem through the cross-sector and sector specific working groups since draft determination on the following points:

1. The DAF (delivery adjustment factor) is a return to input based ex-post regulation, and is not an extension of RIIO. This has also not been consulted on previously.
2. Ofgem have already consulted on a mechanism to manage over and under-delivery of the NARM output which was reflected in the decision made in the SSMD.
3. Ofgem are only proposing project management and purchase costs as 'genuine' efficiencies. This will stifle innovation and our ability to find new and innovative ways to meet the output, deliver cost efficiencies, and reward consumers through TIM.
4. Ofgem are proposing to make a decision on DAF at the end of the T2 period. The level of uncertainty that this creates will prevent networks from attempting innovation, effectively resulting in RIIO2 becoming an input-based 'volumes deal'
5. The scrutiny by Ofgem on the justification for RIIO2 allowances have allowed only certain investments to be included within the draft determination. No further mechanism is therefore required.

We propose that Ofgem removes the DAF, and considers secondary deliverables for each of the lead asset categories in addition to the single network risk output. This will allow networks to meet the outputs necessary to meet the level of reliability proposed by Ofgem, and allow risk trading between categories by exception where this meets the requirements already set out by Ofgem in their SSMD. This also allows network companies to manage any changes to the deterioration of their assets throughout the period in an efficient manner.

We would also like to point out a number of flaws in Ofgem's proposed DAF, which further justify the removal of the DAF:

As per the NARMs methodology, risk benefit includes the consequence of failure of an asset and is very specific to the asset. The DAF generalises risk reduction by voltage which will result in inconsistencies, e.g. the risk reduction for 400kV transformers in the NGET plan ranges from R£3.5m - R£6.3m. Even if the unit cost for delivery of a 400kV SGT was standard, the DAF computes a different unit cost of risk benefit depending on the asset itself. If NGET had to replace an additional 2 SGTs that showed deterioration in T2 with an LTB in the lower range, our outcome will be over delivery of risk and over spend resulting in the application of the DAF. Even though this over-delivery is justified, effectively manages our network and protects consumers from increased risk NGET would be penalised by the DAF.

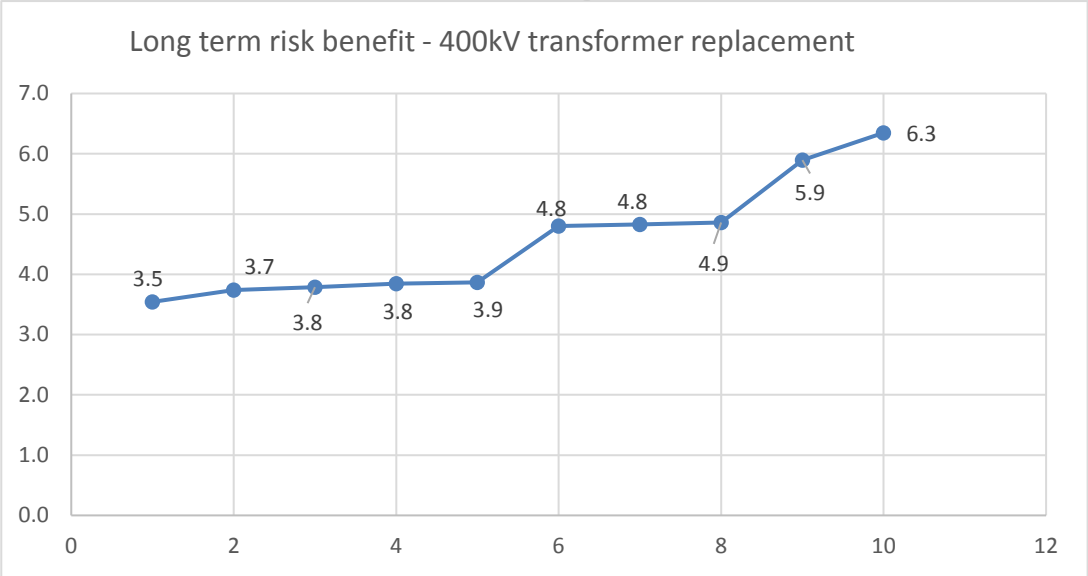

Fig 2: Long term risk benefit on 400kV transformer replacements

NARMs was designed to ensure the risk in T2 is managed at a certain level and is linked to assets removed from the network. Linking the costs to risk will result in discrepancies when an asset is only being disposed of and no new assets are installed in its position. The disposal cost (opex) is not part of the CV tables that are used in the draft determination to provide the baseline volume.

Utilising the NARM annex model that was provided in the draft determination, we have assessed the impact of different scenarios with a submitted cost of £100m and a submitted LTB of R£100m. The table demonstrates the effect of different levels of divergence from the original submission and the gain/loss of allowances (post TIM). The scenarios used are identical to the example template provided by Ofgem. For all calculations, a capping has been applied and a DAF factor of 95% was applied as proposed by Ofgem.

In the majority of scenarios, the combination of adjustment factor and capping results in a loss (penalty) to the network company. There are only 3 scenarios that results in a gain where the over/under delivery has been sufficiently justified. The range of outturn gain is less than 1% in all the scenarios; however, the losses are in the region of 5%-13% of the outturn expenditure. This does not incentivise networks manage additional risk on the network, and could result in an increase in network risk at the end of the period even if the network risk output has been met.

	Scenario Settings			Outturn Values			Final Outcome			
Name	Expenditure Divergence	Delivery Divergence	Justified	Expenditure	Risk Benefit	Company Overspend	Company Gain	Copany Gain (+ Penalty)	% of Outturn	Outcome
	£m	£Rm		£m	£Rm	£m	£m	£m	-	-
OS.OD.JU.DE	+10%	+20%	Yes	110.0	120.0	-0.5	0.2	0.2	0.2%	GAIN
OS.OD.JU.IN	+20%	+10%	Yes	120.0	110.0	10.0	-4.0	-4.0	-3.3%	LOSS
OS.OD.UN.DE	+10%	+20%	No	110.0	120.0	17.9	-7.2	-7.2	-6.5%	LOSS
OS.OD.UN.IN	+20%	+10%	No	120.0	110.0	20.0	-8.0	-8.0	-6.7%	LOSS
OS.UD.JU.IN	+20%	-20%	Yes	120.0	80.0	40.0	-16.0	-16.0	-13.3%	LOSS
OS.UD.UN.IN	+20%	-20%	No	120.0	80.0	40.0	-16.0	-16.5	-13.8%	LOSS
US.UD.JU.DE	-20%	-10%	Yes	80.0	90.0	-0.5	0.2	0.2	0.3%	GAIN
US.UD.JU.IN	-10%	-20%	Yes	90.0	80.0	10.0	-4.0	-4.0	-4.4%	LOSS
US.UD.UN.DE	-20%	-10%	No	80.0	90.0	-0.5	0.2	-0.3	-0.4%	LOSS
US.UD.UN.IN	-10%	-20%	No	90.0	80.0	10.0	-4.0	-4.5	-5.0%	LOSS
US.OD.JU.DE	-20%	+20%	Yes	80.0	120.0	-2.0	0.8	0.8	1.0%	GAIN
US.OD.UN.DE	-20%	+20%	No	80.0	120.0	11.7	-4.7	-4.7	-5.8%	LOSS

Fig 3: Simulation of various scenarios using the NARM annex model for funding adjustments

Scenario name key: **OS** – Over-spend, **US** – Under-spend, **OD** – Over-deliver, **UD** – Under-deliver, **JU** – Justified, **UN** – Unjustified, **DE** – Decreased Unit Cost Risk at outturn, **IN** – Increased Unit Cost Risk at outturn

A deep dive on a couple of scenarios confirms that the outcome varies and can penalise networks regardless of whether the over-under-delivery is justified or not. Refer to the examples below outlining the adjusted allowance calculation stages for three of the scenarios.

Example 1: A network over-delivers on it's output target. Example shows consequence of this over-delivery being justified or unjustified if the Ofgem risk benefit ratio is lower.

This scenario is shown on the first and third rows of Fig 3, scenario OS.OD.JU.DE for justified and OS.OD.UN.DE for unjustified.

For an agreed allowance of £100m and allowed risk benefit of R£100m, the UCR will be set at 1. At the end of T2 spend has been higher by 10% (£110m) and more risk delivered by 20% (R£120m). Then the Unit Cost of Risk Benefit (UCR), i.e. the cost to risk benefit ratio, will decrease from 1 to 0.917 (£110m/R£120m).

The Unit Cost Risk Benefit (allowed final) is then calculated by applying the DAF of 95% to the revised cost to risk benefit ratio and the minimum of the adjusted value and that submitted is then considered for further analysis.

Therefore, UCR_{AF} = MIN(1, 1 – ((1 – 0.917) * 0.95)) = 0.921.

Assuming the over-delivery is justified, the UCR_{AF} is then applied to the risk benefit delivered to calculate the Adjusted Allowance of £110.52m (= 1 * 0.921 * R£120m). As a result, the company receives a windfall gain of £0.52m compared to actual spend (pre-TIM).

On the other hand if the over-delivery is not justified the UCR_{AF} is applied to the baseline risk benefit to calculate the Adjusted Allowance of £92.10m (= 1 * 0.921 * R£100m) which is lower than the £100m baseline. As a result, the company is penalised by £17.9m compared to actual spend (pre-TIM).

This scenario demonstrates that networks can make a small gain (£0.52m) provided that it can justify the over-delivery. If unjustified, the company gets an asymmetrically large penalty (£17.9m).

Example 2: Justified / Unjustified Overspend & Over-delivery with Increasing Cost to Risk Benefit Ratio

This scenario is shown on the second and fourth rows of Fig 3, scenario OS.OD.JU.IN and OS.OD.UN.IN.

For an agreed allowance of £100m and allowed risk benefit of R£100m, the UCR will be set at 1. At end of T2 spend has been higher by 20% (£120m) and more risk delivered by 10% (R£110m). Hence, the Unit Cost of Risk Benefit (UCR), i.e. the cost to risk benefit ratio, has increased from 1 to 1.091.

The Unit Cost Risk Benefit (allowed final) is then calculated by capping back to the original / baseline ratio (1.0), i.e. the 95% DAF factor doesn't apply here. This is summarised by the expression below.

From the above, UCR_{AF} = MIN(1, 1 – ((1 – 1.091) * 0.95)) = 1.

Assuming the over-delivery is justified, the UCR_{AF} is then applied to risk benefit delivered to calculate the Adjusted Allowance of £110m (= 1 * 1 * R£110m). As a result, the company is penalised by £10m (pre-TIM).

On the other hand if the over-delivery is not justified the UCR_{AF} is applied to the baseline risk benefit to calculate the Adjusted Allowance of £100.0m (= 1 * (1 – 0) * R£100m). which is the same as the baseline. As a result, the company is penalised by £20.0m (pre-TIM).

This scenario demonstrates that networks will be penalised by (£10m) provided that it can justify the over-delivery. If unjustified, the company gets a larger penalty of (£20m).

Example 3: Justified / Unjustified Overspend & Under-delivery with Increasing Cost to Risk Benefit Ratio

This scenario is shown on the fifth and sixth rows of Fig 3, scenario OS.UD.JU.IN and OS.UD.UN.IN.

For an agreed allowance of £100m and allowed risk benefit of R£100m, the UCR will be set at 1. At the end of T2 spend has been higher by 20% (£120m) but risk underdelivered by 20% (R£80m). Hence, the Unit Cost of Risk Benefit (UCR), i.e. the cost to risk benefit ratio, has increased to 1.5 from submitted 1.

The Unit Cost Risk Benefit (Allowed final) is then calculated by capping back to the original / baseline ratio (1.0), i.e. the 95% DAF factor doesn't apply here as a result of an increase from the baseline. This is summarised by the expression below.

Therefore, UCR_{AF} = MIN(1, 1 – ((1 – 1.5) * 0.95)) = 1.

Assuming the over-delivery is justified, the UCR_{AF} is then applied to risk benefit delivered to calculate the Adjusted Allowance of £80m (= 1 * R£80m). As a result, the company is penalised by £40m against our allowance (pre-TIM).

On the other hand if the over-delivery is not justified the UCR_{AF} is applied to the risk benefit delivered to calculate the Adjusted Allowance of £80m (= 1 * R£80m). As a result, the company is penalised by £40m. In addition, a £0.5m penalty (2.5% of Clawback). Total penalty is £40.5m.

This scenario demonstrates that networks will be penalised by (£40m) provided that it can justify the under-delivery. If unjustified, the company gets a larger penalty of (£40.5m).

Revised Split Method Approach

On the 27th of August Ofgem proposed a revised mechanism with the aim to eliminate scenarios where companies would be penalised for justified over / under delivery.

The new proposal is only relevant for cases where the reported UCR has increased from the baseline UCR. As shown in the figure below, if the company justifies their over / under delivery the UCR is no longer capped at baseline (yellow line) but matches the reported UCR (red dotted line). This means that the revised allowance won't be reduced and the company held neutral or making a small gain. Figure 4 shows the revised mechanism, while figure 5 shows the updated table. Examples 1-3 were run again (but called examples 4-6) using this revised methodology.

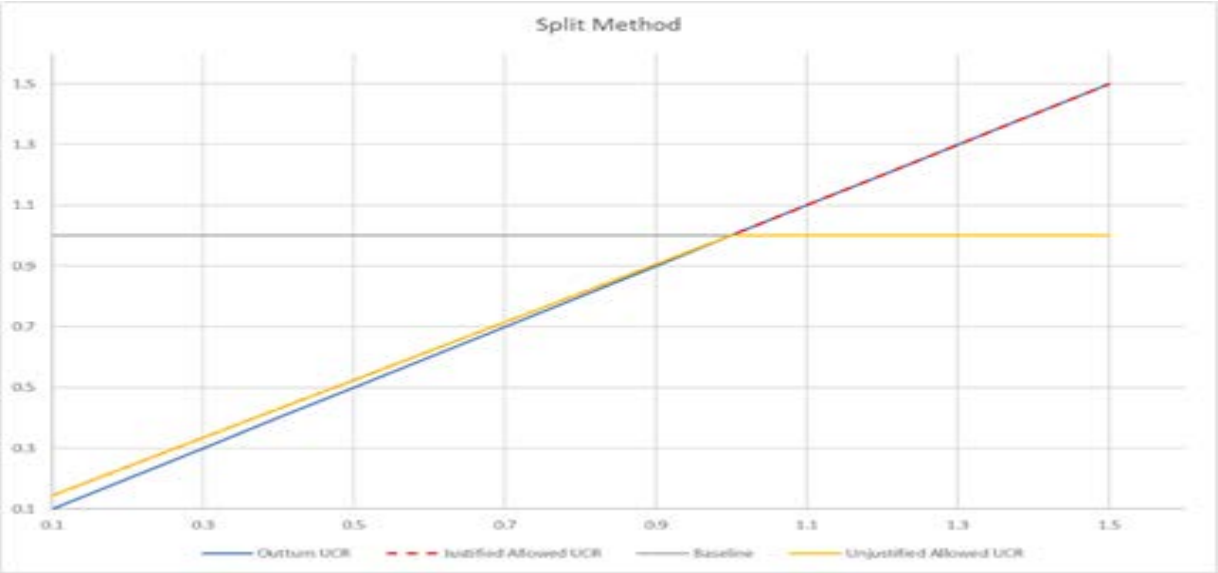

Fig 4: The proposed alternative Split Method for NARM funding adjustments

Scenario Settings				Outturn Values		Calculated UCRB			Final Outcome				
Name	Expenditure	LTB	Justified (%)	Expenditure	Risk Benefit	Baseline	Reported	Allowed	Company Overspend	Company Gain	Company Gain (+ Penalty)	% of Outturn	Outcome
	£m	£Rm	-	£m	£Rm	-	-	-	£m	£m	£m	-	-
OS.OD.JU.DE	+10%	+20%	Yes	110.0	120.0	1.000	0.917	0.921	-0.5	0.2	0.2	0.2%	GAIN
OS.OD.JU.IN	+20%	+10%	Yes	120.0	110.0	1.000	1.091	1.091	0.0	0.0	0.0	0.0%	-
OS.OD.UN.DE	+10%	+20%	No	110.0	120.0	1.000	0.917	0.921	17.9	-7.2	-7.2	-6.5%	LOSS
OS.OD.UN.IN	+20%	+10%	No	120.0	110.0	1.000	1.091	1.000	20.0	-8.0	-8.0	-6.7%	LOSS
OS.UD.JU.IN	+20%	-20%	Yes	120.0	80.0	1.000	1.500	1.500	0.0	0.0	0.0	0.0%	-
OS.UD.UN.IN	+20%	-20%	No	120.0	80.0	1.000	1.500	1.000	40.0	-16.0	-16.5	-13.8%	LOSS
US.UD.JU.DE	-20%	-10%	Yes	80.0	90.0	1.000	0.889	0.894	-0.5	0.2	0.2	0.3%	GAIN
US.UD.JU.IN	-10%	-20%	Yes	90.0	80.0	1.000	1.125	1.125	0.0	0.0	0.0	0.0%	-
US.UD.UN.DE	-20%	-10%	No	80.0	90.0	1.000	0.889	0.894	-0.5	0.2	-0.3	-0.4%	LOSS
US.UD.UN.IN	-10%	-20%	No	90.0	80.0	1.000	1.125	1.000	10.0	-4.0	-4.5	-5.0%	LOSS
US.OD.JU.DE	-20%	+20%	Yes	80.0	120.0	1.000	0.667	0.683	-2.0	0.8	0.8	1.0%	GAIN
US.OD.UN.DE	-20%	+20%	No	80.0	120.0	1.000	0.667	0.683	11.7	-4.7	-4.7	-5.8%	LOSS

Fig 5: Simulation of various scenarios using the Split Method model for NARM funding adjustments

Example 4: A network over-delivers on its output target. Example shows consequence of this over-delivery being justified or unjustified if the Ofgem risk benefit ratio is lower.

This scenario is shown on the first and third rows of Fig 5, scenario OS.OD.JU.DE for justified and OS.OD.UN.DE for unjustified. This is the same case study as example 1.

For an agreed allowance of £100m and allowed risk benefit of R£100m, the UCR will be set at 1. At the end of T2 spend has been higher by 10% (£110m) and more risk delivered by 20% (R£120m). Then the Unit Cost of Risk Benefit (UCR), i.e. the cost to risk benefit ratio, will decrease from 1 to 0.917 (£110m/R£120m).

The Unit Cost Risk Benefit (allowed final) is then calculated by applying the DAF of 95% to the revised cost to risk benefit ratio and the minimum of the adjusted value and that submitted is then considered for further analysis.

Therefore, UCR_{AF} = MIN(1, 1 – ((1 – 0.917) * 0.95)) = 0.921.

Assuming the over-delivery is justified, the UCR_{AF} is then applied to the risk benefit delivered to calculate the Adjusted Allowance of £110.52m (= 1 * 0.921 * R£120m). So overall, the company receives a windfall gain of £0.52m compared to actual spend (pre-TIM).

On the other hand, if the over-delivery is not justified the UCR_{AF} is applied to the baseline risk benefit to calculate the Adjusted Allowance of £92.10m (= 1 * 0.921 * R£100m) which is lower than the £100m baseline. So overall, there is an overspend of £17.9m against the allowance.

This scenario doesn't change with this new proposal. The mechanism results in a small gain (£0.52m) for the company and the consumer provided that the over delivery has been justified. However, if unjustified, the company gets an asymmetrically large penalty (£17.9m).

Example 5: Justified / Unjustified Overspend & Over-delivery with Increasing Cost to Risk Benefit Ratio

This scenario is shown on the second and fourth rows of Fig 5, scenario OS.OD.JU.IN and OS.OD.UN.IN. This is the same case study as Example 2.

For agreed cost of £100m if submitted risk benefit is R£100m, the UCR will be set at 1. At end of T2 it is realised that we have overspent by 20% (£120m) and over-delivered the risk benefit by 10% (R£110m). Hence, the Unit Cost of Risk Benefit (UCR), i.e. the cost to risk benefit ratio, has increased to 1.091 from submitted 1.

Using the revised "Split Method", if we assume the over-delivery is justified The Unit Cost Risk Benefit (allowed final) is set equal to the outturn UCR and DAF is not applicable. This is summarised by the expression below.

From the above, $UCR_{AF} = UCR_{outturn} = 1.091$

This means that the adjusted allowance is also the same as the outturn expenditure of £120m and there is no penalty. Hence, overall there is no net gain or loss.

On the other hand, if the over-delivery is not justified the UCR_{AF} is capped at the baseline and applied to the risk benefit delivered to calculate the Adjusted Allowance of £120m (= 1 * R£120m). So overall, we have overspent by £20m against our allowance. In addition, a £0.5m penalty (2.5% of Clawback).

When compared to Example 2 above, the split method appears to solve the flaw observed before where regardless if the over-delivery was justified the company ends up with losses. However, this is only true provided full justification has been provided. If the overdelivery isn't justified there is still a significant reduction in the revised allowance causing a large asymmetric penalty.

Example 6: Justified / Unjustified Overspend & Under-delivery with Increasing Cost to Risk Benefit Ratio

This scenario is shown on the fifth and sixth rows of Fig 5, scenario OS.UD.JU.IN and OS.UD.UN.IN. This is the same case study as Example 3.

For agreed cost of £100m if submitted risk benefit is R£100m, the UCR will be set at 1. At end of T2 it is realised that we have overspent by 20% (£120m) and underdelivered the risk benefit by 20% (R£80m). Hence, the Unit Cost of Risk Benefit (UCR), i.e. the cost to risk benefit ratio, has increased to 1.5 from submitted 1.

Using the revised "Split Method", and assuming the under-delivery is justified The Unit Cost Risk Benefit (Allowed final) is set equal to the outturn UCR and DAF is not applicable. This is summarised by the expression below.

From the above, $UCR_{AF} = UCR_{outturn} = 1.5$.

This means that the adjusted allowance is also the same as the outturn expenditure of £120m and there is no penalty. There shall be no additional penalty and hence, overall, there is no net gain or loss.

On the other hand, if the over-delivery is not justified the UCR_{AF} is capped at the baseline and applied to the risk benefit delivered to calculate the Adjusted Allowance of £80m (= 1 * R£80m). So overall, we have overspent by £40m against our allowance. In addition, a £0.5m penalty (2.5% of Clawback).

When compared to Example 3, the above scenario demonstrates that the revised method solves the issues where the company was being penalised even if the under delivery was justified. However, if the underdelivery is unjustified, an assymetric penalty is applied.

Conclusion

The revised "Split method" proposed by Ofgem appears to solve some of the flaws of the original proposal. Specifically, for cases where the company has reported an increased UCR the outcome is either a small gain or break even provided that sufficient justification has been provided. However, as demonstrated by examples 4-6, if unjustified there are still some fundamental flaws in the mechanism that causes disproportional / unpredictable penalties.

The DAF is not required:

- It is ex-post input based regulation, and not RIIO

- It stifles innovation
- It prevents efficiencies, due to uncertainty in Ofgem's decision on what is genuine
- The calculation method is flawed, and results in random penalties
- There is adequate protection through justification of the business plan by Ofgem
- Existing over/under delivery mechanism is adequate

NARMQ4. Do you agree with our proposals in regard to requirements for justification cases?

Whilst we fundamentally do not support the need for adjustment factors we do agree that over or under-delivery of NARM outputs should be justified by networks.

The criteria for justification has been set out by Ofgem in the SSMD, which we support. We believe that Ofgem could go one step further and include a template to be completed as a minimum requirement, to prevent subjectivity in the assessment of justification cases or inconsistency across networks. We also think that Ofgem should explore the use of independent user groups to check justification, to ensure a level of external scrutiny and assurance prior to final review by Ofgem.

It is important that justification cases are reviewed on an ongoing basis and not 'ex-post' at the end of the price control period. Network companies can learn from early justification cases, making improvements and increasing efficiency and innovation throughout the period as lessons are learnt in the early years of RIIO2.