

Gas
Transmission

Workshops

Charging Reforms

26 August 2021

nationalgrid



Overview

- Draft terms of reference for these workshops
- Updates following National Grid's open letter and recent updates (Webinar / NTSCMF) and development discussions and setting up for future workshops
 1. Additional Charge
 2. Approach to Gas Year Revenues
- Next Steps

Workshops going forward

- For this first workshop, National Grid has put together an 'update' pack and will talk through these updates and this material will be made available for Stakeholders to review, reflect on and comment for the next workshop.
- Any views will be welcome, however we appreciate time is needed to reflect on the details shown.
- For future workshops, development updates and relevant materials will be issued in advance to allow better opportunities for discussions
- For the next workshop, based on the discussion today, any comments will be welcome direct to National Grid at any time.

Gas
Transmission

1

Additional
Charge

nationalgrid



Additional Charge within the Charging Methodology

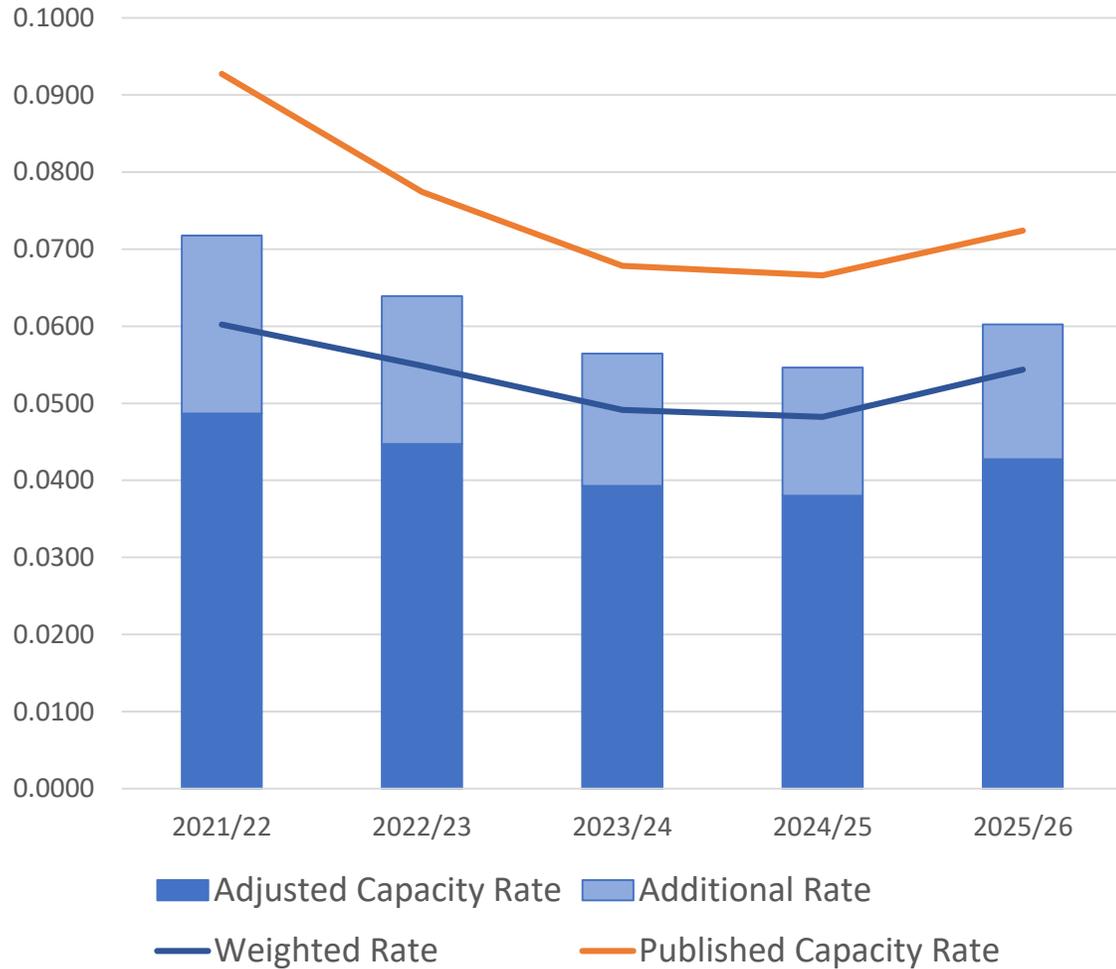
- Following NTSCMF in August, National Grid suggested some methods by which an amount could be attributable to the influence of Existing Contracts.
- In terms of what it is looking to address, primarily the price impacts associated to the high levels and use of Existing Contracts significantly impacting the prevailing payable Entry Reserve prices, a method of measuring this should be integral to its design
- Previously, National Grid shared a number of options and said we'd be focusing on our Scenario 3 (establishing the influence of utilised Existing Contracts relative to overall utilised capacity) as it provided a logical basis in terms of assessing and demonstrating a pricing influence of existing contracts.
- In this workshop we are showing the impact of this approach to continue its test as a concept and outlining the steps we intend to take ahead of the next workshop to build this into the overall methodology

Modelling the outcomes

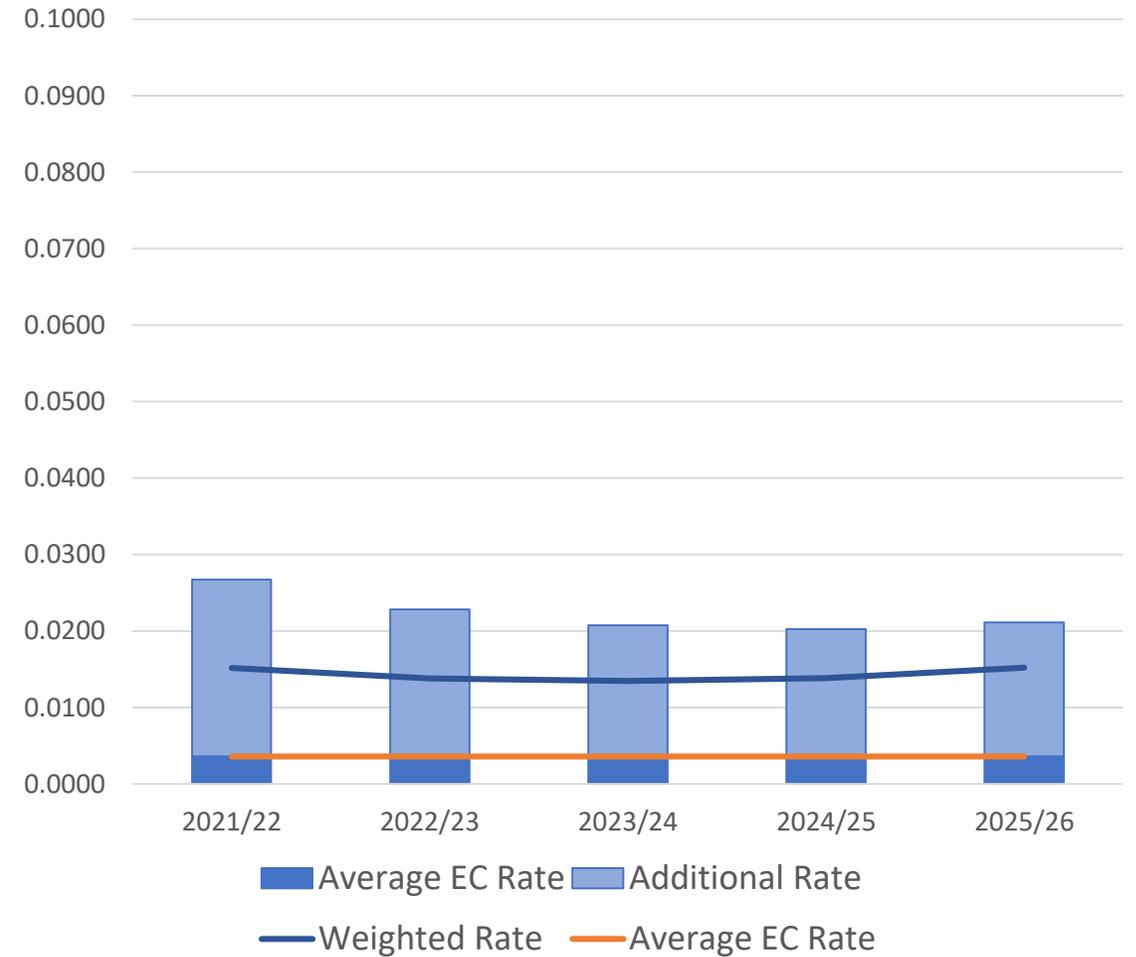
- **To Support understanding of the following charts**
 - Two charts are shown based on revenue scenario 3; one each for Non-EC and EC impacts.
 - The **orange** line tracks the current and indicative Entry Capacity Reserve prices as published in May 2021 with effect from Oct 21. For the second graph, a single weighted average of Existing Contract prices is used across all five years.
 - The **dark blue** bar represents the Adjusted capacity rate based on the recalculated reserve prices as a result of the process to determine the revenue to be collected by the additional charge.
 - The **light blue** bar represents the additional charge. Stacked on top of the Adjusted Capacity Rate, this light blue bar represents the upper and lower limits of what a Shipper could pay in commodity charges on top of Capacity, dependant on their flow levels.
 - The **dark blue** line is the average weighted price, this comprises the cost per kWh of capacity booked and the average additional rate payable based on the historic ratio of flows against capacity.
 - The relationship between the **orange** line and the **dark blue** line demonstrates the change in payable price in each scenario and is the key message to take away from these graphs.

Flow based charge (no exemptions)

Rates p/kWh/day



Existing Contract Rates p/kWh/day

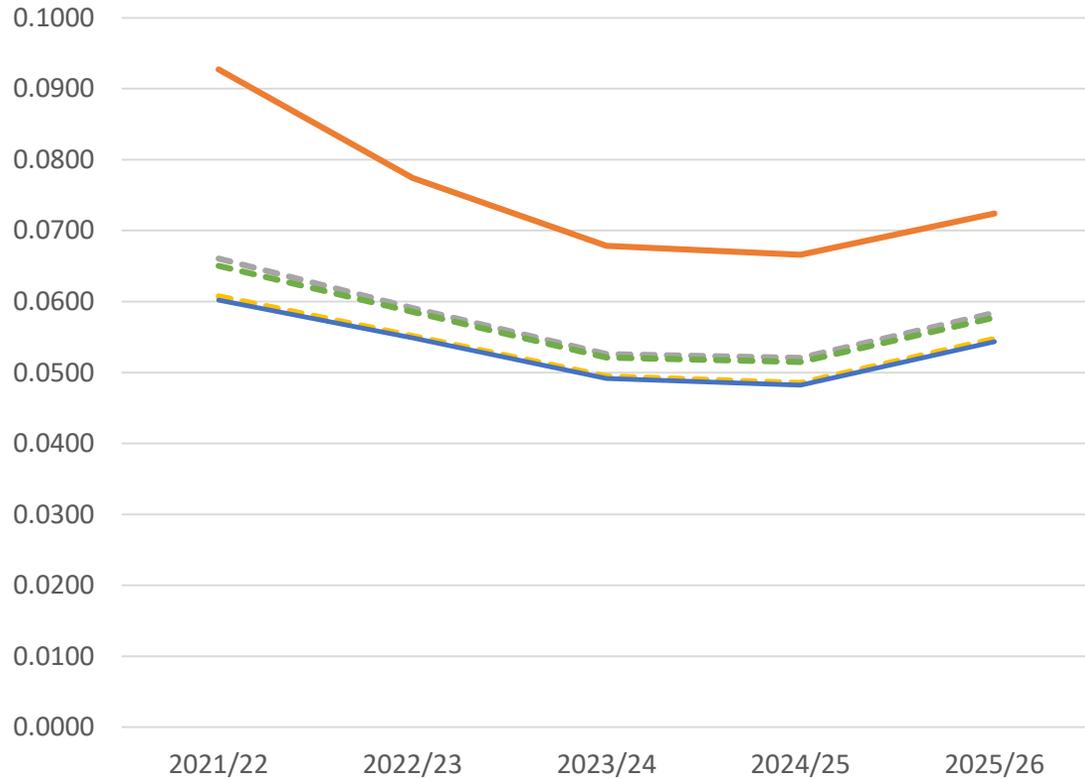


Additional Charge within the Charging Methodology

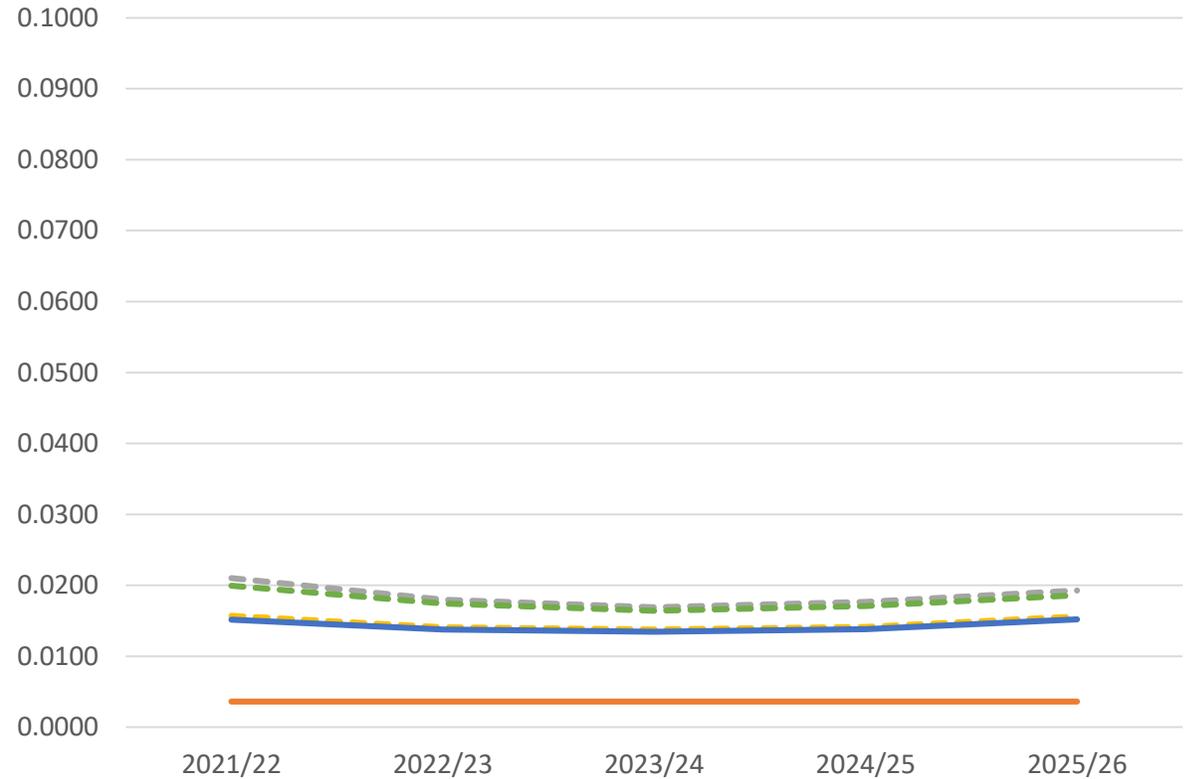
- The following graphs demonstrate the impact of potential exemptions to the flow based charge.
 - We retain the **orange** lines providing the current and indicative prices for the next five years...
 - ...and the **dark blue** line demonstrating the weighted average cost per unit under a scenario with no exemptions as seen previously.
 - Three dotted lines have been added representing the weighted average price for three combinations of exemptions
 - IP Exemption only in **yellow**
 - Storage Exemption only in **green**
 - Combined IP and Storage Exemptions in **grey**
 - An additional zoomed in version for each graph follows the versions displayed in context to better highlight the differences.
 - Please be aware of the changes to scale on the y axis on the second of the following graphs.

Flow based charge – exemption impacts

Standard Capacity



Existing Contracts

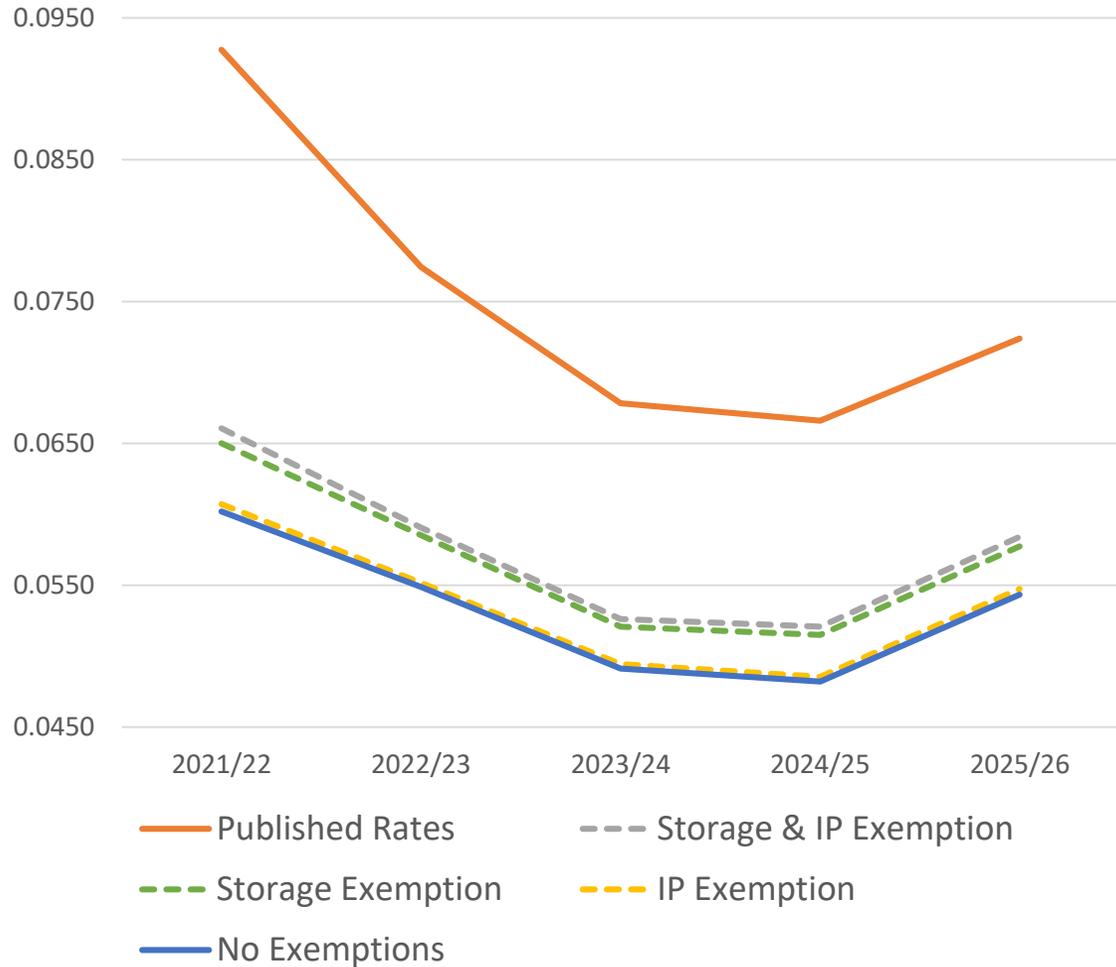


- Published Rates
- - - Storage Exemption
- No Exemptions
- - - Storage & IP Exemption
- - - IP Exemption

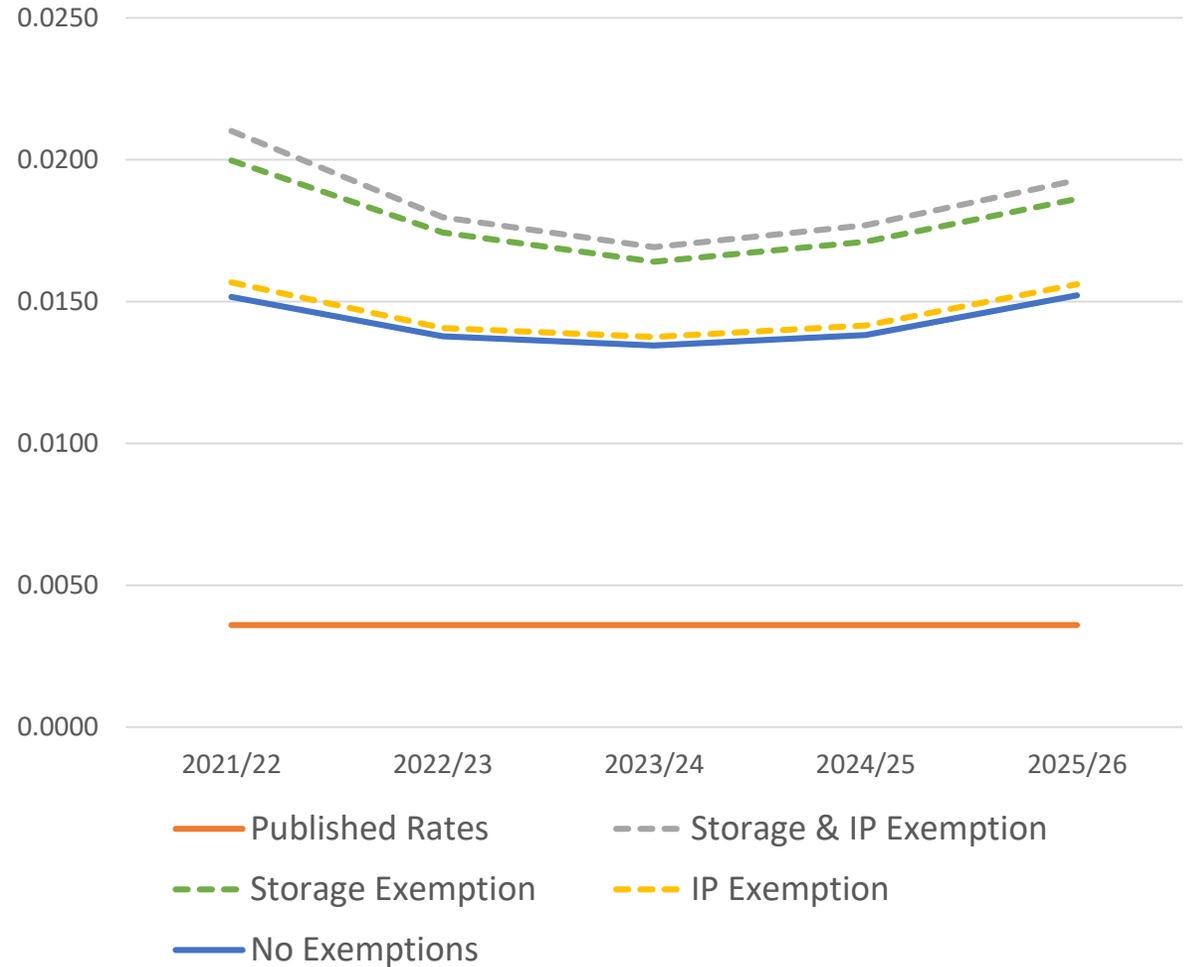
- Published Rates
- - - Storage Exemption
- No Exemptions
- - - Storage & IP Exemption
- - - IP Exemption

Flow based charge – exemption impacts

Standard Capacity

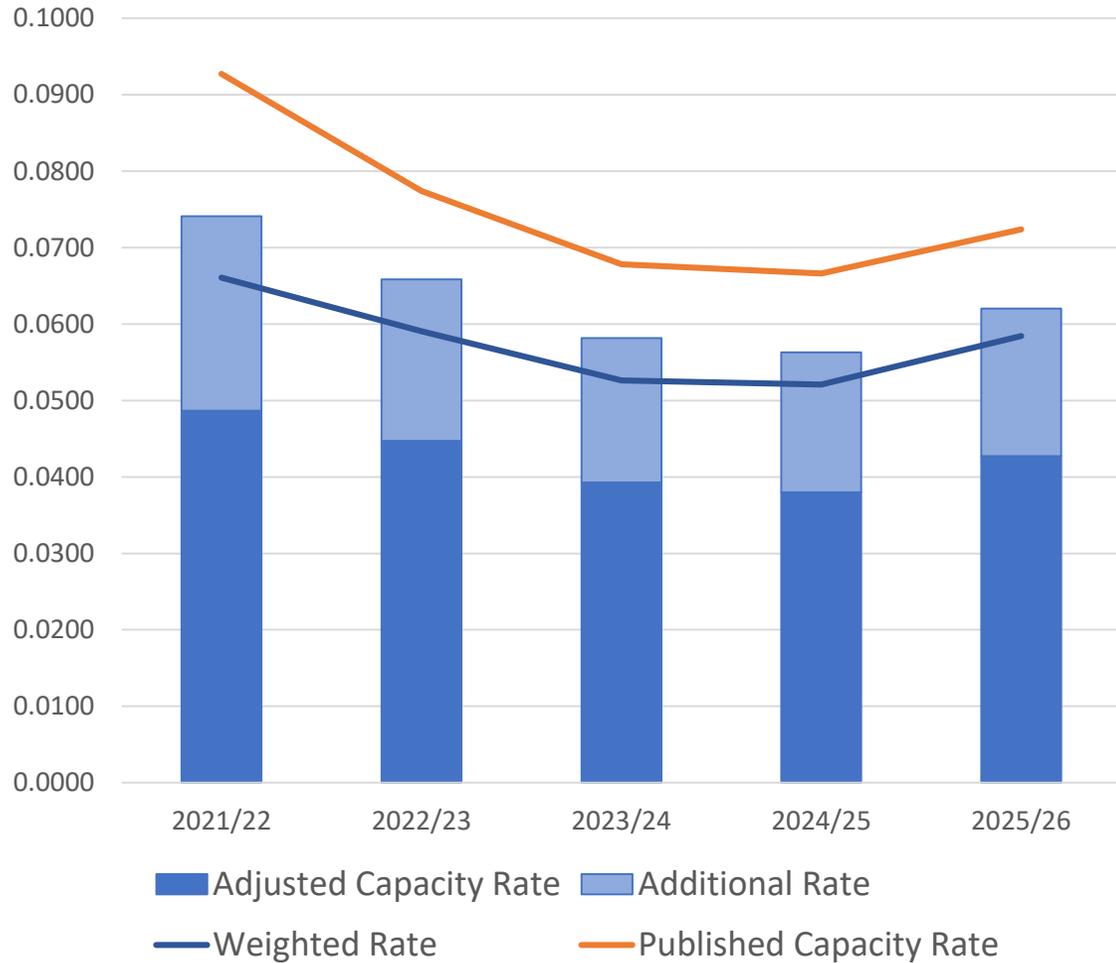


Existing Contracts

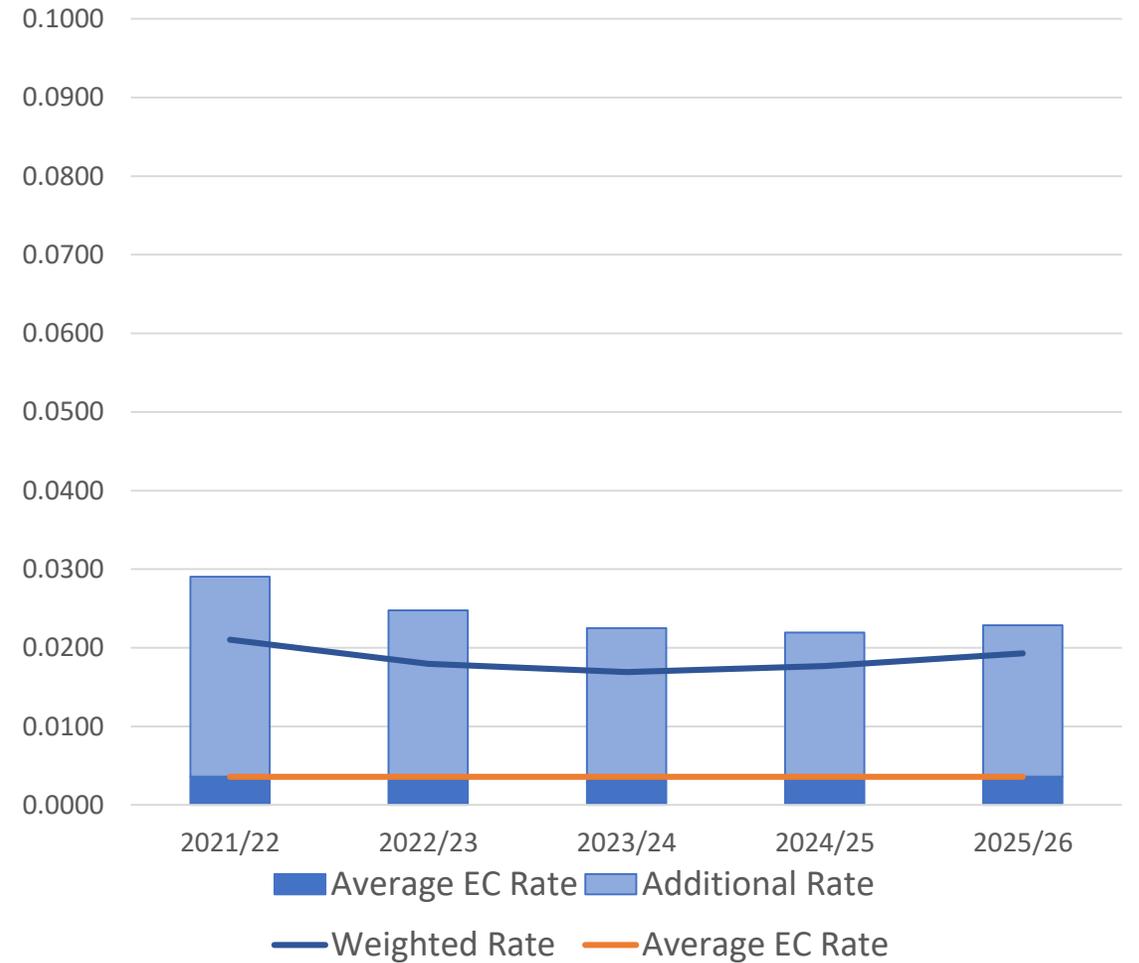


Flow based charge - IP and Storage exemption

Rates p/kWh/day



Existing Contract Rates p/kWh/day



Additional Charge within the Charging Methodology

- Our next step is to develop the basis of what's been shown and consider a method by which this could be a product of the RPM such that it is an output that can be levied more in line with TAR NC to manage revenue recovery linked to the issue it is looking to address.
- Below we share some thoughts on the steps that are needed and welcome views on this. This uses the prevailing method as a baseline to change from (i.e. where the focus is on recovery of the Formula Year Revenues).
- High level summary:
 - Determine target allowed revenue for Entry
 - Establish prices without EC influence that would be applied to Non-ECs. All discount arrangements (i.e. storage % discounts, interruptible, inefficient bypass) would apply to these reserve prices.
 - Calculate anticipated revenue collection from both non-ECs and ECs to determine a revenue shortfall
 - Revenue Shortfall becomes the target revenue from the additional Entry flow based charge

Next Steps: Additional Charge

- More detailed thinking – for discussions / thoughts and to share for forthcoming workshops:
 - Determine Allowed Revenues as per normal process to determine overall target Entry revenue (including Existing Contracts)
 - Calculate the entry reference price without ECs and produce an Entry capacity reference price for all capacity as if no Existing Contracts.
 - Produce updated expected recovered revenues using the calculated reserve prices plus all other revenues / charges (e.g. ECs, inefficient bypass) to determine anticipated amount to be collected from the additional charge.
 - Review anticipated collection against the baseline UNC for recovery (i.e. using the regulatory year as the target). Consider any updates to meet this obligation as revenue recovery profile of capacity and a flow based charge would be different to prevailing that is only linked to capacity.
 - Review the level of the additional charge in light of the obligation under previous step regarding target recovery of regulatory year.

Gas
Transmission

2

Revenues

nationalgrid



Revenue Profiles: Current Methodology (UNC TPD Y 1.6.1)

Financial Year v Gas Year

- National Grid's Allowed Revenues are set for Formula / Financial / Regulatory Year (April – March)
- Transmission Services Entry / Exit & IP Capacity Reserve prices are set for Gas Year (October – September)
 - Reserve prices have to be set to ensure National Grid meets its Allowed Revenues for the Financial Year.
 - Prices driven by revenue required to be collected in the period October to March of the Gas Year.
- $AR_y = (AR_t - R_{pt}) * F_{ry} * 2$
 - where AR_t is the corresponding allowed revenue for Formula Year t ;
 - R_{pt} is the amount of revenue (of the corresponding kind) which National Grid NTS estimates will be earned in respect of the part of Formula Year t which falls prior to Gas Year y ;
 - F_{ry} is a factor which represents National Grid NTS's estimate of (A / B) where A is the amount of revenue (of the corresponding kind) which would be expected to be earned on average in any month in Gas Year y as a whole, and B is the amount of revenue (of the corresponding kind) which would be expected to be earned on average in any month in the part of Formula Year t which falls within Gas Year y .

Revenues options

- Amendment to the calculation of the Gas Year revenue.

Scope of thinking at this stage – new methodology

Takes the target revenue needed for the remainder of a Regulatory Year then applies the previous FRY% split to determine the % revenue needed of the next years Regulatory Year for the period April to September. These two values then added together to provide the updated target revenue for the Gas Year.

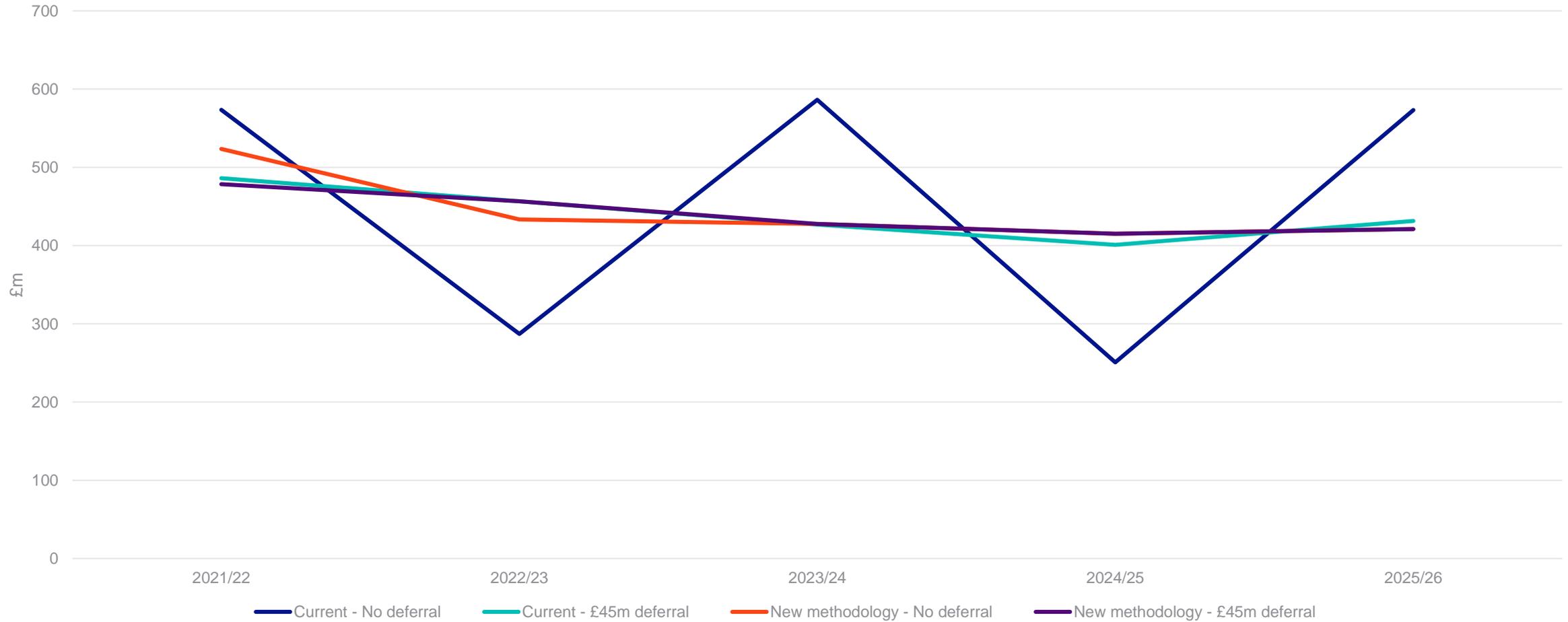
This would mean, without other steps that the Regulatory Year's revenue will not be collected (Assuming forecasts are correct).

Analysis shown in this pack

1. Modelling current methodology and revenues used for tariff setting (Entry) with and without £45m deferral
2. Adjusted revenues for same years applying this updated methodology with and without £45m deferral

Modelling showing Revenue changes

Gas Year Revenue (no K)



Current Methodology revenues (£45m deferral)

- The revenue with the £45m deferral can be seen below which will be used for the setting of Gas Year prices

	2021/22		2022/23		2023/24		2024/25		2025/26		2026/27	
	Apr-Sep 21	Oct - Mar 21/22	Apr - Sep 22	Oct - Mar 22/23	Apr - Sep 23	Oct - Mar 23/24	Apr - Sep 24	Oct - Mar 24/25	Apr - Sep 25	Oct - Mar 25/26	Apr - Sep 26	Oct - Mar 26/27
Seasonal Allocaton Factor (Fry)		0.515	0.485	0.515	0.485	0.515	0.485	0.515	0.485	0.515	0.485	0.515
Entry Target Revenue (FY)	515.136		470.974		441.289		413.481		416.748		425.923	
Expected Entry Revenue (Rpt)	264.726											
Predicted / Required Revenue to meet FY		250.410		235.242		219.836		206.531		222.323		216.632
Resulting Revenue for first 6 months on next FY			235.732		221.453		206.950		194.425		209.291	
Total Entry Revenue (FY)	515.136		470.974		441.289		413.481		416.748		425.923	
Entry Modelled Revenue (GY)		486.141	456.696		426.786		400.956		431.614			

Current Methodology revenues (No deferral)

- The revenue with the no deferral can be seen below which will be used for the setting of Gas Year prices

	2021/22		2022/23		2023/24		2024/25		2025/26		2026/27	
	Apr-Sep 21	Oct - Mar 21/22	Apr - Sep 22	Oct - Mar 22/23	Apr - Sep 23	Oct - Mar 23/24	Apr - Sep 24	Oct - Mar 24/25	Apr - Sep 25	Oct - Mar 25/26	Apr - Sep 26	Oct - Mar 26/27
Seasonal Allocaton Factor (Fry)		0.515	0.485	0.515	0.485	0.515	0.485	0.515	0.485	0.515	0.485	0.515
Entry Target Revenue (FY)	560.136		425.974		441.289		413.481		416.748		425.923	
Expected Entry Revenue (Rpt)	264.726											
Predicted / Required Revenue to meet FY		295.410		147.880		302.077		129.110		295.205		148.021
Resulting Revenue for first 6 months on next FY			278.094		139.212		284.371		121.542		277.902	
Total Entry Revenue (FY)	560.136		425.974		441.289		413.481		416.748		425.923	
Entry Modelled Revenue (GY)		573.504	287.092		586.448		250.653		573.107			

New Methodology revenues (£45m deferral)

- The revenue with the £45m deferral can be seen below which is using the new proposed methodology for the setting of Gas Year prices

	2021/22		2022/23		2023/24		2024/25		2025/26		2026/27	
	Apr-Sep 21	Oct - Mar 21/22	Apr - Sep 22	Oct - Mar 22/23	Apr - Sep 23	Oct - Mar 23/24	Apr - Sep 24	Oct - Mar 24/25	Apr - Sep 25	Oct - Mar 25/26	Apr - Sep 26	Oct - Mar 26/27
Seasonal Allocaton Factor (Fry)		0.515	0.485	0.515	0.485	0.515	0.485	0.515	0.485	0.515	0.485	0.515
Entry Target Revenue (FY)	515.136		470.974		441.289		413.481		416.748		425.923	
Revised 6 monthly		250.410	228.193	242.781	213.810	227.479	200.337	213.144	201.920	214.828	206.365	
Revised 6 monthly GY Target		478.602	456.591		427.816		415.064		421.193			

New Methodology revenues (No deferral)

- The revenue with the no deferral can be seen below which is using the new proposed methodology for the setting of Gas Year prices

	2021/22		2022/23		2023/24		2024/25		2025/26		2026/27	
	Apr-Sep 21	Oct - Mar 21/22	Apr - Sep 22	Oct - Mar 22/23	Apr - Sep 23	Oct - Mar 23/24	Apr - Sep 24	Oct - Mar 24/25	Apr - Sep 25	Oct - Mar 25/26	Apr - Sep 26	Oct - Mar 26/27
Seasonal Allocaton Factor (Fry)		0.515	0.485	0.515	0.485	0.515	0.485	0.515	0.485	0.515	0.485	0.515
Entry Target Revenue (FY)	560.136		425.974		441.289		413.481		416.748		425.923	
Revised 6 monthly		295.410	228.193	219.584	213.810	227.479	200.337	213.144	201.920	214.828	206.365	
Revised 6 monthly GY Target		523.602		433.395		427.816		415.064		421.193		

Next Steps with Revenues

- To fully develop into a workable solution there is further details to share and expand on. The focus in this workshop has been to highlight the basic method underlying a potential change that could ‘flatten’ the revenue profile compared to the current approach. This has been shown using Transmission Services Entry Revenues.
- Further considerations needs to take account of and sharing in these workshops:
 - Transmission Services Entry, Exit and Non-Transmission Services assessments
 - Revenue recovery and sensitivity to variances across years

Gas
Transmission

3

Next Steps

nationalgrid



Next Steps with Additional Charge / Revenues

- Both areas being prioritised require some further development and are progressing
 - In each of the sections, next steps specific to each were identified
- One aspect to keep in mind is the change from the current UNC baseline
 - The two proposals should be independent and not changing same text in UNC
 - Each will show comparisons to current UNC baseline as would be needed for UNC change proposals
- There will likely be merits in showing the potential impacts of the two sets of potential changes together
 - Views on this are welcome to shape how this could be approached

Gas
Transmission

4

Contact

nationalgrid



Contact

Colin Williams
Charging & Revenue Manager

Colin.williams@nationalgrid.com

Dave Bayliss
Revenue Lead

Dave.bayliss@nationalgrid.com

Laura Johnson
Senior Code Change Officer

Laura.johnson@nationalgrid.com

Kieran McGoldrick
Senior Charging Officer

Kieran.mcgoldrick@nationalgrid.com

Dan Hisgett
Code Change Officer

Daniel.hisgett@nationalgrid.com

General Questions

General Regulatory Change Queries
box.gsoconsultations@nationalgrid.com

General Charging Queries
box.NTSGasCharges@nationalgrid.com

General Capacity Queries
box.capacityauctions@nationalgrid.com

national**grid**