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Gas Transportation Charging Charges from October 2020

National Grid Webinar
23 June 2020

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Agenda

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Introduction and Scope

Aim of the Webinar

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NTS Transportation Charges for October 2020: Introduction and Scope

Aim of this Webinar is to provide:

- An Overview of the key drivers of charges under the methodology to apply from October 2020 with the implementation of UNC0678A
  - Focus will be on the Transmission Services Entry and Exit Capacity Reference / Reserve Prices. Revenue management will also be covered in terms of process.
  - Non-Transmission Charges will also be covered to as part of the timeline of changes
- A breakdown of the reasons behind the levels of capacity charges
- An overview of which charges can be updated and when

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Changes to Transportation Charging

Published June 2020, effective October 2020

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NTS Transportation Charges: Changes being implemented for October 2020

Changes: Uniform Network Code (UNC) Modification proposal 0678A

- Ofgem approved UNC 0678A on 28 May 2020 to be effective from October 2020
  - https://www.ofgem.gov.uk/system/files/docs/2020/05/unc678_-_decision_0.pdf
- Postage Stamp pricing for Transmission capacity reserve prices (i.e. one Entry and one Exit price irrespective of geographic location) with the payable price changing each year
  - Except for long term Entry capacity booked before 6 April 2017
- All capacity reserve prices the same (annual, daily, etc) except:
  - 10% discount to reserve prices for interruptible / off peak capacity
  - 50% discount to reserve prices for Storage Capacity
- Managing Transmission Revenue Recovery within year via capacity-based charges.
- There are no Commodity based Transmission Services Charges.
- There is no charging product for managing inefficient bypass (this is being developed separately). This arrangement is known as “Shorthaul”.
- Non-Transmission Charges (broadly aligning to SO) recovered via a commodity charge.

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Published prices and drivers

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NTS Transportation Charges: Published prices and drivers

Prices published on 05 June 2020

- Charges for October 2020. The published prices / data included:
  - Final Transmission Services Entry and Exit Capacity Reference and Reserve Prices for Gas Year 20/21. The timing provides the reserve prices for the Annual IP auctions due to take place in July 2020 and all subsequent auctions for capacity for Gas Year 20/21.
  - Forecasted Contracted Capacity used to set the reference/reserve prices
  - Indicative Non-Transmission Charges for October 2020

Future changes / data that can be expected to be published

- Transmission Services Charging tool to support the prices published for transparency
- Final Non-Transmission Charges for October 2020
- Use of and updates to Transmission Services Entry and Exit Revenue Recovery charges
- Required publications in line with the EU Tariff Code

NTS Transportation Charges: Changes being implemented for October 2020

Prices published on 05 June 2020 for applicable Gas Year

Transmission Services Prices (p/kWh/d) (rounded to 4 decimal places)	Final	Indicative			
	20/21	21/22	22/23	23/24	24/25
Entry Capacity Reserve Price	0.0717	0.0521	0.0571	0.0521	0.0483
Entry Capacity Reserve Price for Storage (50% discount)	0.0359	0.0261	0.0285	0.0260	0.0242
Transmission Services Entry RRC*	0.0000	0.0000	0.0000	0.0000	0.0000
Exit Capacity Reserve Price	0.0198	0.0204	0.0213	0.0239	0.0223
Exit Capacity Reserve Price for Storage (50% discount)	0.0099	0.0102	0.0107	0.0120	0.0112
Transmission Services Exit RRC*	0.0000	0.0000	0.0000	0.0000	0.0000

NTS Transportation Charges: Drivers

UNC0678A Drivers

- Charges are calculated using two key drivers:
  - Revenue - the target revenue for the required period(s)
  - Forecasted Contracted Capacity

- We'll explore each of these in turn

NTS Transportation Charges: Drivers

UNC0678A Drivers - Revenues

- The target revenue considers:
  - Target Maximum Allowed Revenue (MAR) for regulatory years (i.e. April to March)
  - Revenue profiled across the Gas Years (i.e. October to September)
  - Revenue, actual and forecast, up to 30 September 2020 (i.e. up to the start of the new methodology and new prices)

- In the following slides we show how the revenue values are derived from the MARs, converting to Transmission Services and then to the target revenues for a Gas Year, that covers part of two Regulatory Years

NTS Transportation Charges: Drivers

UNC0678A Drivers – Revenues for October charges

- Target MAR for regulatory years (i.e. April to March). This requires a revenue for years into RIIO2 which will run from April 2021 to March 2026. For the period April 2021 onwards revenue values based on NG's Business Plan have been used.
- Revenue profiling across years for these charges means
  - Profile for each six-month block of regulatory year / gas year allows a profiling of revenues to be created
  - Transitioning from a commodity heavy regime to capacity only one means more to recovery in the period October to September as April to September (commodity heavy) is lower than it would be under capacity. (i.e. capacity creates a flatter profile than commodity)
- Revenue, actual and forecast, up to 30 September 2020 (i.e. up to the start of the new methodology and new prices). For the period April to September, there has been a reduction in demand as a result of the weather and as a result of COVID-19.
  - Results in a revenue shortfall of: £21.1m

NTS Transportation Charges: Calculating Gas Year Revenues

Converting TO MAR to Transmission Services MAR

- In order to calculate the charges it is necessary to produce a Regulatory year MAR value for Transmission Services, the required split from October 2020
- This starts with the Transmission Owner MAR and then, through some adjustments, produces the Transmission Services MAR for the purposes of setting charges

Maximum Allowed Revenue Determination for the purposes of Charging

£m	RIIO1	RIIO2				
Regulatory Years (April - March)	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
TO MAR (including K)	**780.1**	**910.9**	**927.9**	**1008.9**	**1037.7**	**1070.7**
Net Adjustments converting to Transmission Services	-33.3	-1.7	-1.7	-1.8	-1.8	-1.9
Transmission Services MAR	**746.8**	**909.2**	**926.2**	**1007.2**	**1035.9**	**1068.8**
TO Entry	374.6	460.9	463.1	503.6	517.9	534.4
TO Exit	372.2	448.3	463.1	503.6	517.9	534.4
Total MAR for Charge Setting	**746.8**	**909.2**	**926.2**	**1007.2**	**1035.9**	**1068.8**

- At this stage it is worth revisiting October 2020 indicatives to show how the total revenue for Regulatory year 2020/2021 is unchanged

NTS Transportation Charges: Revenues and changing methodologies with no impact on collection

UNC0678A Drivers – Revenue for Regulatory Year 2020/21

- For awareness we compare the charges from our October indicatives and those from 05 June to highlight that the target revenue would be the same. The split of collection across charges would change but not the total to set charges to collect.

FY 2020/21			October Indicative - Previous Regime Revenue Phasing			Mod 0678(A) Charge Setting (inc. COVID) Revenue Phasing		
			Apr - Sep	Oct-Mar	TOTAL (FY 20/21)	Apr-Sep	Oct - Mar	TOTAL (FY 20/21)
TO	Entry Capacity	Tx Services	7.2	40.2	47.3	7.2	274.4	281.6
	Entry Commodity	Tx Services	106.1	221.0	327.1	92.8	-	92.8
	TO ENTRY		113.2	261.2	374.4	99.9	274.4	374.4
	Exit Capacity	Tx Services	112.2	102.7	214.9	112.2	219.1	331.3
	Exit Commodity	Tx Services	48.4	108.5	156.9	40.6	-	40.6
	TO EXIT		160.6	211.2	371.8	152.9	219.1	371.9
	Pensions Deficit	GNon Tx	16.0	16.0	32.1	16.0	16.0	32.1
	Meter Maintenance	GNon Tx	0.9	0.9	1.7	0.9	0.9	1.7
	TOTAL TO		290.8	489.3	780.1	269.7	510.4	780.1

NTS Transportation Charges: Calculating Gas Year Revenues

Converting Regulatory Year to Gas Year

- To create a Gas Year Revenue this requires several steps to be taken
  - Produce the Transmission Services MAR for Regulatory Years
  - Consider actual and expected revenue collection for any prior period
  - Profile revenues across remaining six months of Regulatory Year and first six months of next one (the gas Year)
  - Profiling looks at capacity profile to shape the collection of revenues
- This produces both a Regulatory Year Revenue and a Gas Year Revenue
- The Gas Year revenue is be used for setting reserve prices to apply for the Gas Year

- The example of Gas Year 2021/22 is shown on the next slide

Modelled Revenues – Gas Year 2020/21

		2020/21		2021/22	
		Apr-Sep 20	Oct - Mar 20/21	Apr - Sep 21	Oct - Mar 21/22
ENTRY: Determine "Gas Year" (Oct - Sep (GY)) target Revenues to set charges from ""Financial Year" (Apr - Mar (FY)) Allowed Revenues.	Seasonal Allocaton Factor (Entry)		0.54	0.46	
	Entry Target Revenue (FY)	374.6			
	Expected Entry Revenue from Apr-Sep 2020	113.2			
	Revision due to Forecast COVID impact on Demands	-13.3			
	Expected Entry Revenue	99.9			
	Predicted / Required Revenue to meet FY		274.7		
	Resulting Revenue for first 6 months on next FY			230.2	
	Total Entry Revenue (FY)	374.6			
	Entry Modelled Revenue (GY)		**504.9**		

		2020/21		2021/22	
		Apr-Sep 20	Oct - Mar 20/21	Apr - Sep 21	Oct - Mar 21/22
EXIT: Determine "Gas Year" (Oct - Sep (GY)) target Revenues to set charges from ""Financial Year" (Apr - Mar (FY)) Allowed Revenues.	Seasonal Allocaton Factor (Exit)		0.49	0.51	
	Exit Target Revenue (FY)	372.2			
	Expected Exit Revenue from Apr-Sep 2020 (Current Regime)	160.6			
	Revision due to Forecast COVID impact on Demands	-7.8			
	Expected Exit Revenue	152.9			
	Predicted / Required Revenue to meet FY		219.3		
	Resulting Revenue for first 6months on next FY			224.6	
	Total Exit Revenue (FY)	372.2			
	Exit Modelled Revenue (GY)		**443.9**		

NTS Transportation Charges: Calculating Gas Year Revenues

Calculating the Gas Year MARs (and target for reserve prices)

- Starting with the regulatory Year numbers

Maximum Allowed Revenue Determination for the purposes of Charging

£m	RIIO1	RIIO2				
Regulatory Years (April - March)	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
TO MAR (including K)	**780.1**	**910.9**	**927.9**	**1008.9**	**1037.7**	**1070.7**
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Transmission Services MAR	**746.8**	**909.2**	**926.2**	**1007.2**	**1035.9**	**1068.8**
TO Entry	374.6	460.9	463.1	503.6	517.9	534.4
TO Exit	372.2	448.3	463.1	503.6	517.9	534.4
Total MAR for Charge Setting	**746.8**	**909.2**	**926.2**	**1007.2**	**1035.9**	**1068.8**

- These are then used to calculate, using the method explained into Gas Year revenues to be used in setting Transmission Services Entry and Exit reserve prices

Target Revenues for Setting Transmission Services Reserve prices

£m	RIIO1	RIIO2				
Regulatory Years (April - March)	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Transmission Services (Entry)*	99.9	504.9	424.0	495.9	510.1	524.5
Transmission Services (Exit)*	152.9	443.9	452.8	473.7	534.2	501.3
GY Target recovery	**252.8**	**948.8**	**876.8**	**969.5**	**1044.2**	**1025.8**

**Set for October to September starting October 2020*

Revenue collected April 20 - Sept 20

NTS Transportation Charges: Drivers

UNC0678A Drivers - FCC

- The Forecasted Contracted Capacity follows the FCC Methodology in the derivation of the numbers.
- The methodology follows a series of steps using data from current and previous years
- It uses a mix of forecast demand, historical sold, historical flows, existing contracts, PARCAs and current bookings (Exit GDNs only)
- It permits NG to use a different value from the outcome should it be required, and we note where and why this has been carried out.
- National Grid considered an extra logical step.
  - If the resulting FCC from the method before review was lower than known sold for the year in question, the sold value is used. This is highlighted in the publications.
  - The resulting FCC is therefore slightly higher on Entry and Exit than if this was not employed. As this increases the denominator in the PS Calculation, the prices are lower than they would have been without the exception NGG performed.

NTS Transportation Charges: Drivers

UNC0678A Drivers – Existing Contracts

- Existing Contracts are long term Entry capacity contracts procured before 6 April 2017 (Entry into force of the EU Tariff Code).
- Existing contracts have fixed capacity prices, so the revenue and volume associated to them for any given year are netted off in revenue and the FCC value used to set Postage Stamp prices for Entry only. Total FCC (Gross will include Existing Contracts).
- Therefore the capacity denominator in the Postage Stamp price calculation will be lower on Entry than on Exit
- Existing contracts expire over time

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Summary of Key Drivers

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NTS Transportation Charges: Drivers

Summary

- Revenues are influence by a number of elements
- FCC has been updated with some exceptions applied
- Transition to a new methodology does not change the target for Regulatory Year 2020/21
- The setting of charges across multiple gas years (as indicatives) does consider the interaction between Regulatory Year and Gas Years
- A move from a commodity weighted regime (in outcome) to a capacity regime also delivers some changes
- Future publications
  - We welcome views on the information shared to ensure its relevance
  - We will review what, when and how we publish supporting data and information
  - Email: box.NTSGasCharges@nationalgrid.com

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Supporting Information

Relativity to Sensitivity Tool v3.1

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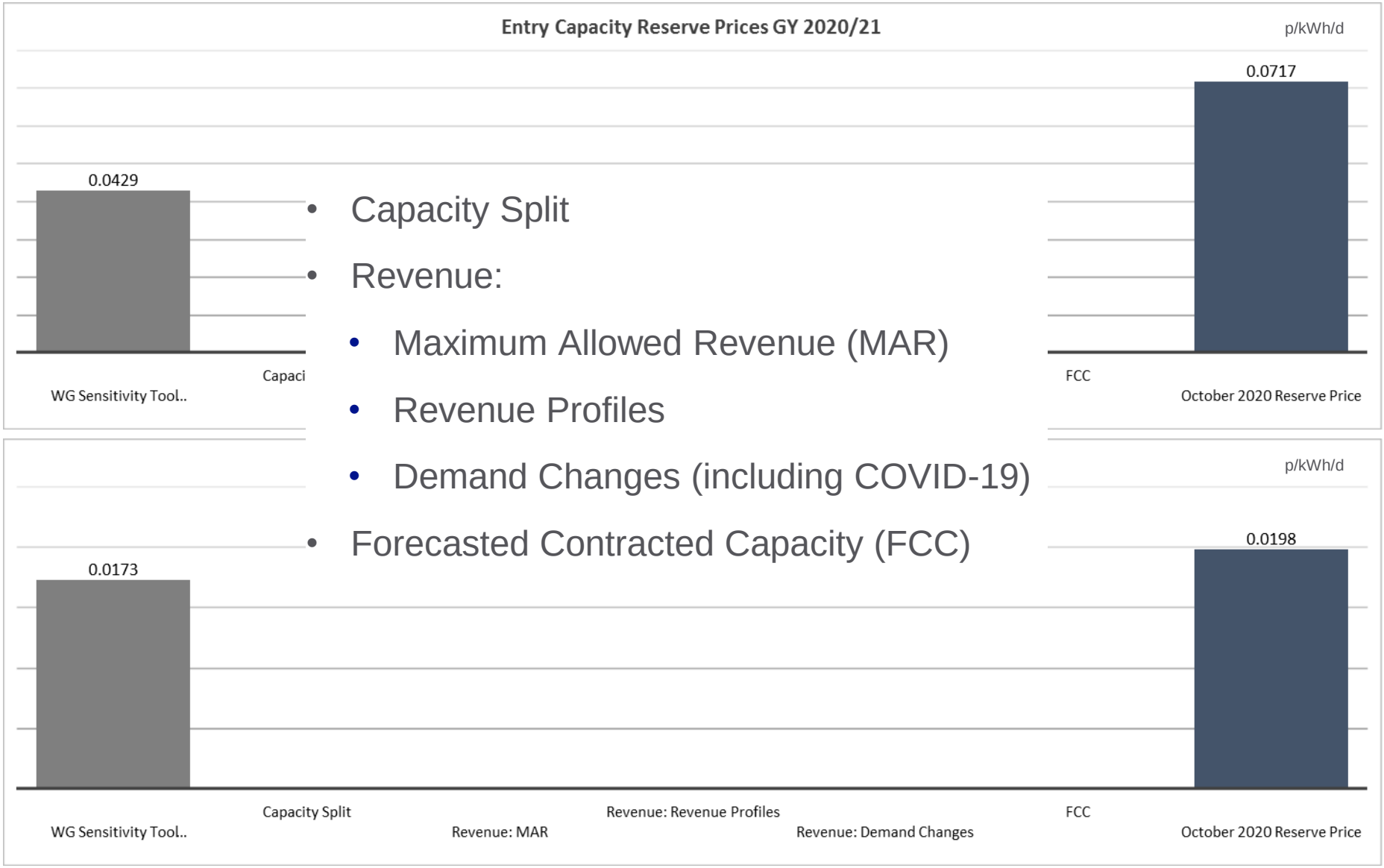
NTS Transportation Charges: Sensitivity Tool v3.1

A summary of charges published relative to those in the sensitivity tool

- In order to help support UNC0678 (and alternatives), National Grid produced a sensitivity tool to help users to understand and inform their views on the proposals.
- https://www.gasgovernance.co.uk/0678/Models
- The tool, was not to provide indicative prices but serve as a tool to support modelling using inputs a User chose to assist in understanding UNC0678 (and alternatives) and how prices were calculated and the sensitivity of specific elements
- We recognize that some would like some clarity on what variances have taken place over time to help see the differences between that model and the prices published on 05 June for Gas Year 2020/21.
- N.B. The following analysis is not a breakdown of the charges in general – this *only* serves to explain differences between the sensitivity tool and the prices for awareness and to support transparency to assist in understanding of the mechanics under the new regime

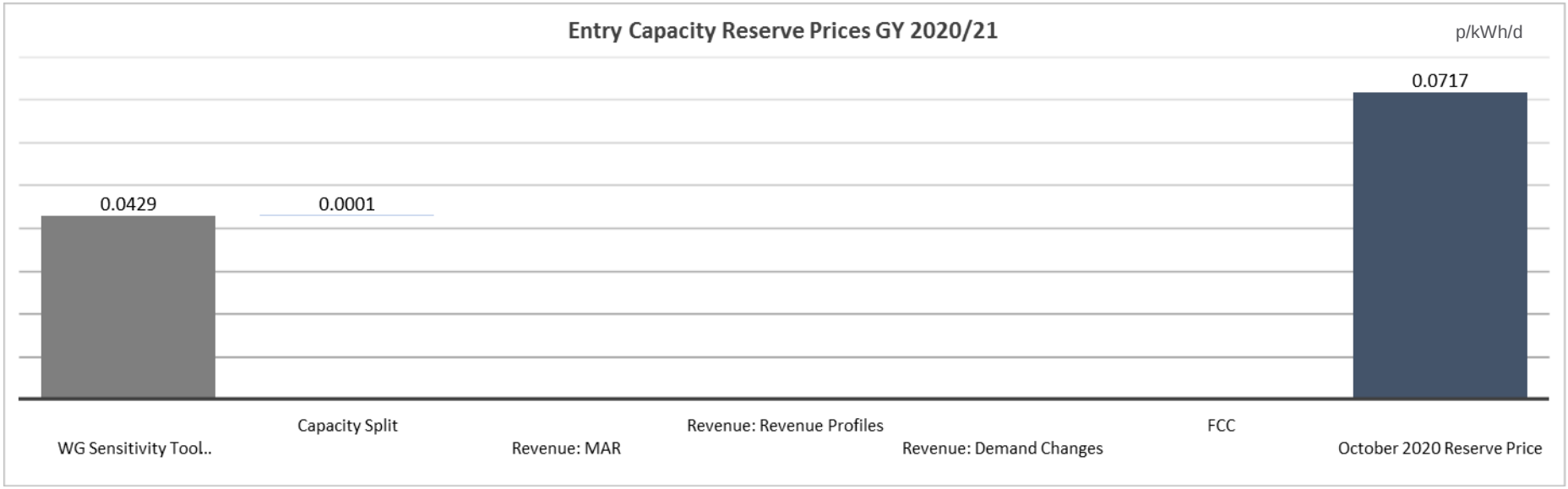
Tx Services: Entry & Exit Capacity Reserve Prices Oct 20

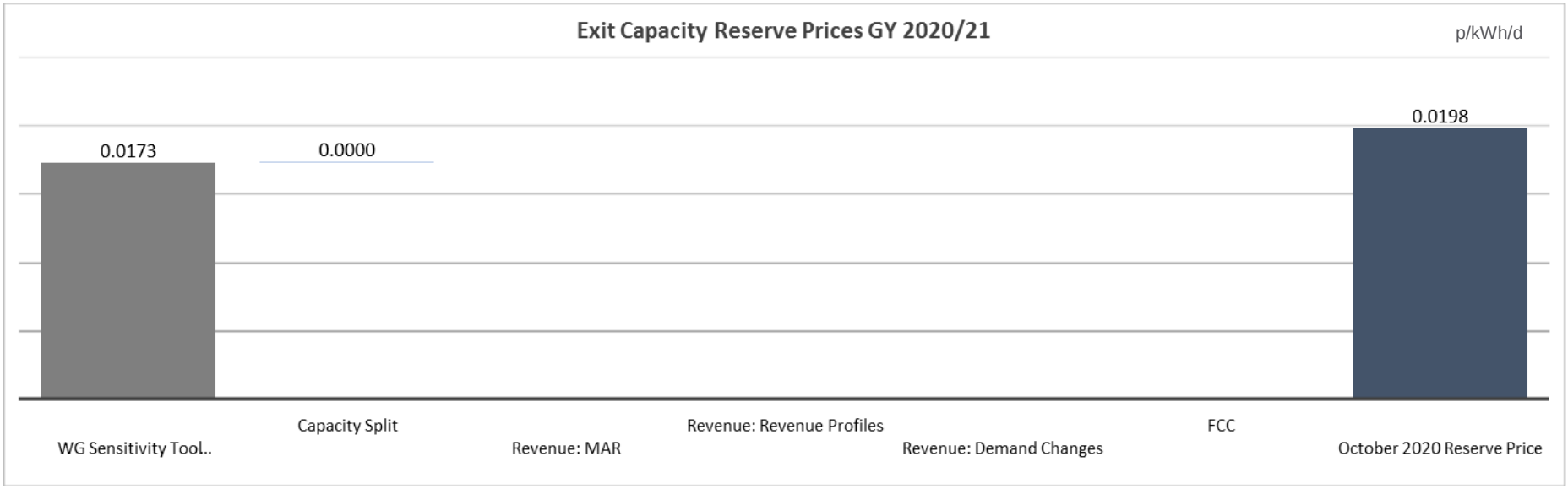
Drivers of Price Change



- Capacity Split
- Revenue:
  - Maximum Allowed Revenue (MAR)
  - Revenue Profiles
  - Demand Changes (including COVID-19)
- Forecasted Contracted Capacity (FCC)

Capacity Split – Impact on Reserve Prices





Revenue: Revised MAR (Maximum Allowed Revenue)

TO MAR 20/21

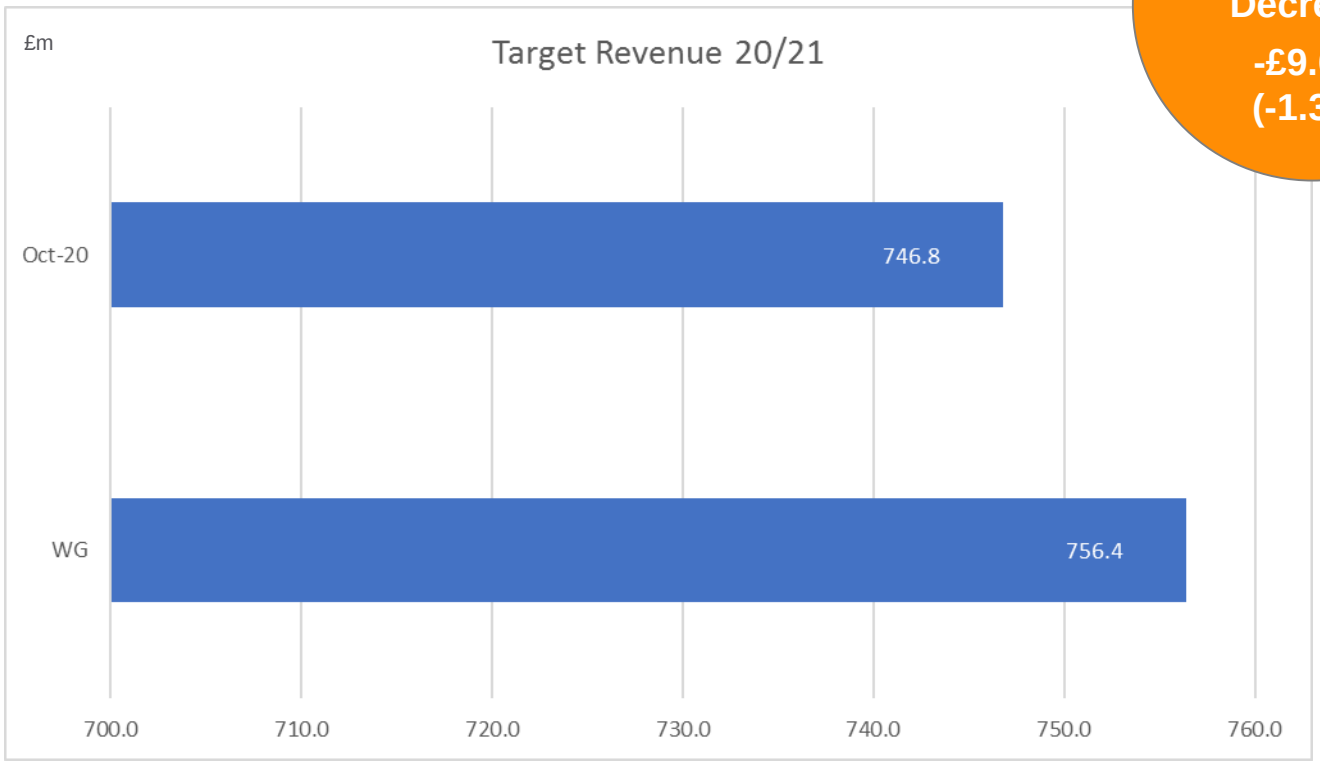
£780.1m

Transmission Services / General Non Transmission Services (DN Pension / Meter Maintenance / SO Capacity) Adjustments

-£33.3m

Target Revenue

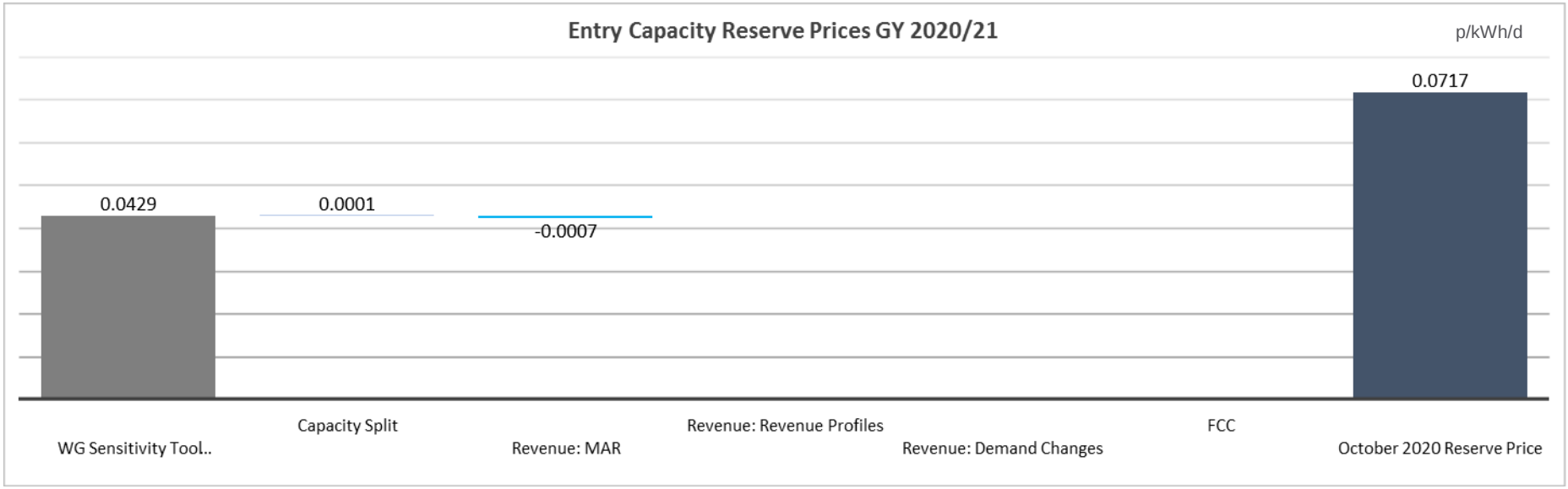
£746.8m

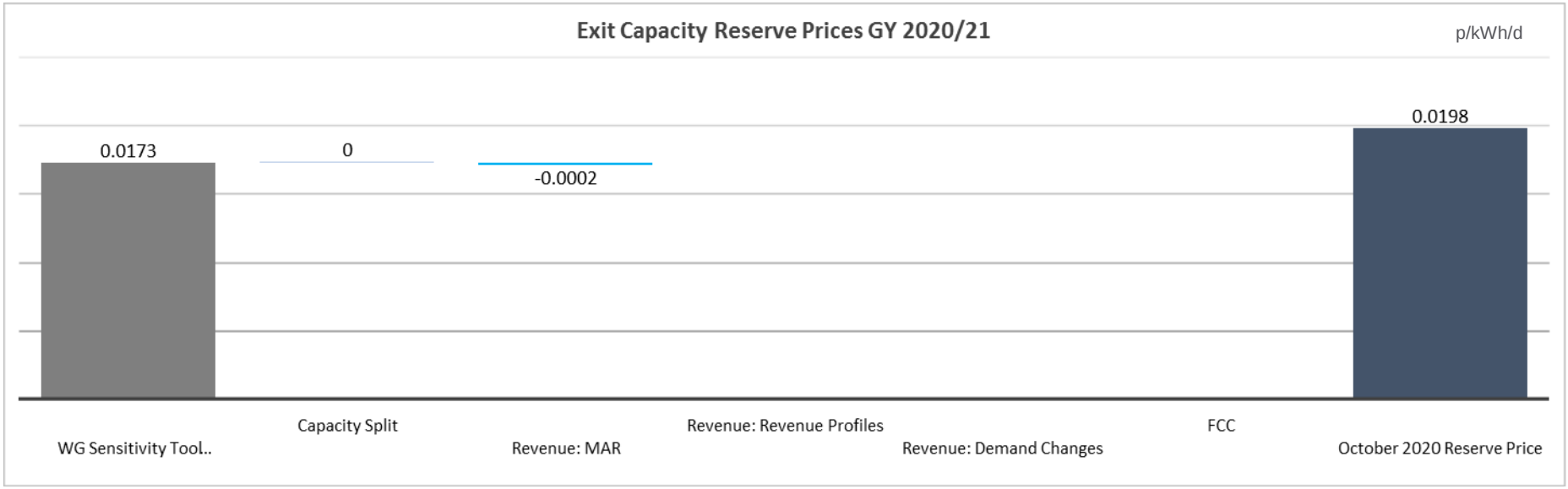


Target Revenue Decrease

-£9.6m (-1.3%)

Revenue: Revised MAR – Impact on Reserve Prices





Revenue Profiles: Apr-Sep

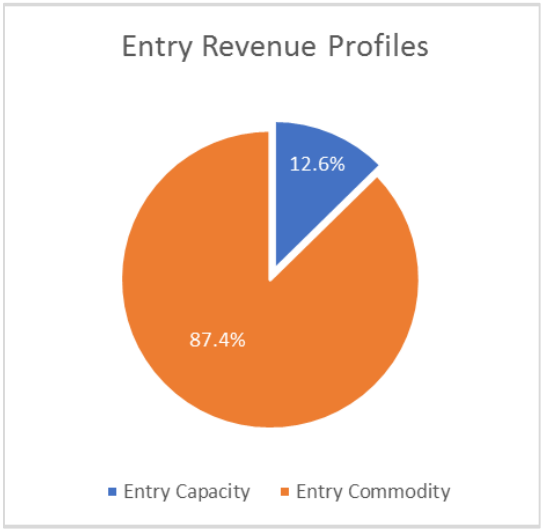
Financial Year v Gas Year

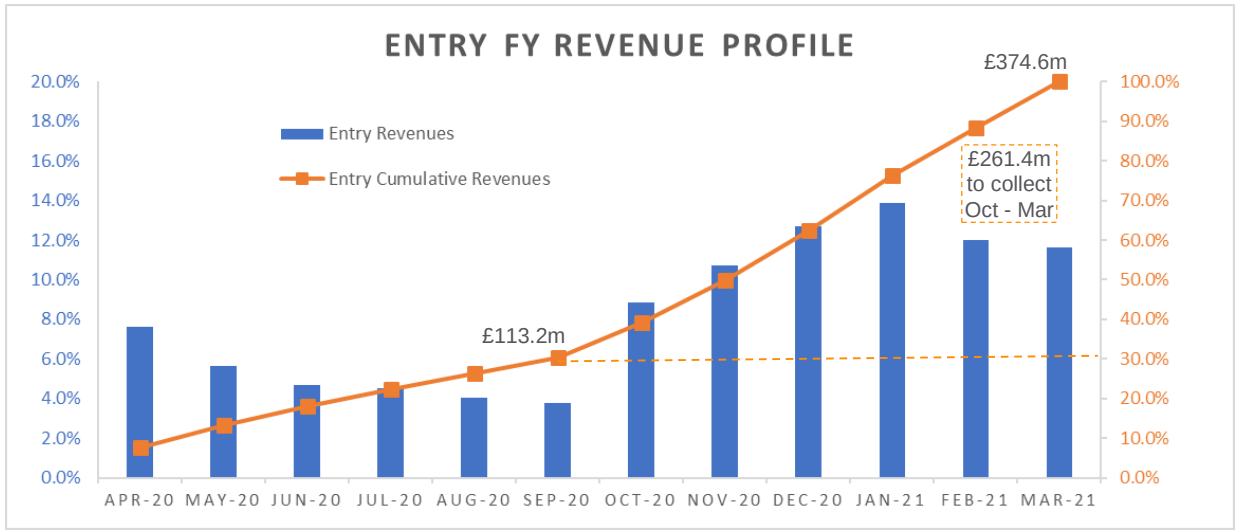
- National Grid's Allowed Revenues are set for Financial Year (April – March)
- Transmission Services Entry / Exit & IP Capacity Reserve prices are set for Gas Year (October – September)
  - Reserve prices have to be set to ensure National Grid meets its Allowed Revenues for the Financial Year.
  - Prices driven by revenue required to be collected in the period October to March of the Gas Year.

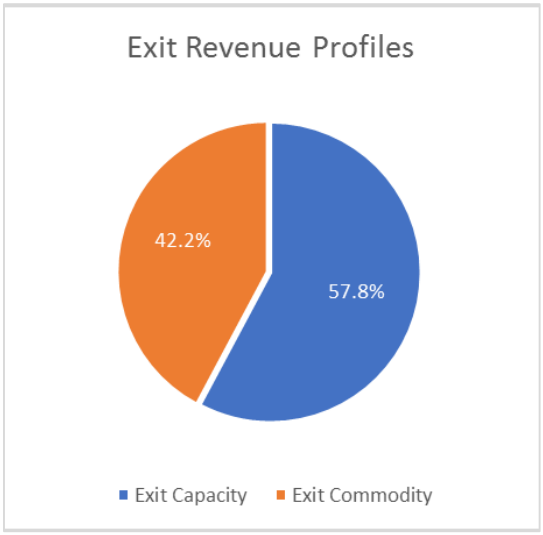
Capacity v Commodity Profiles

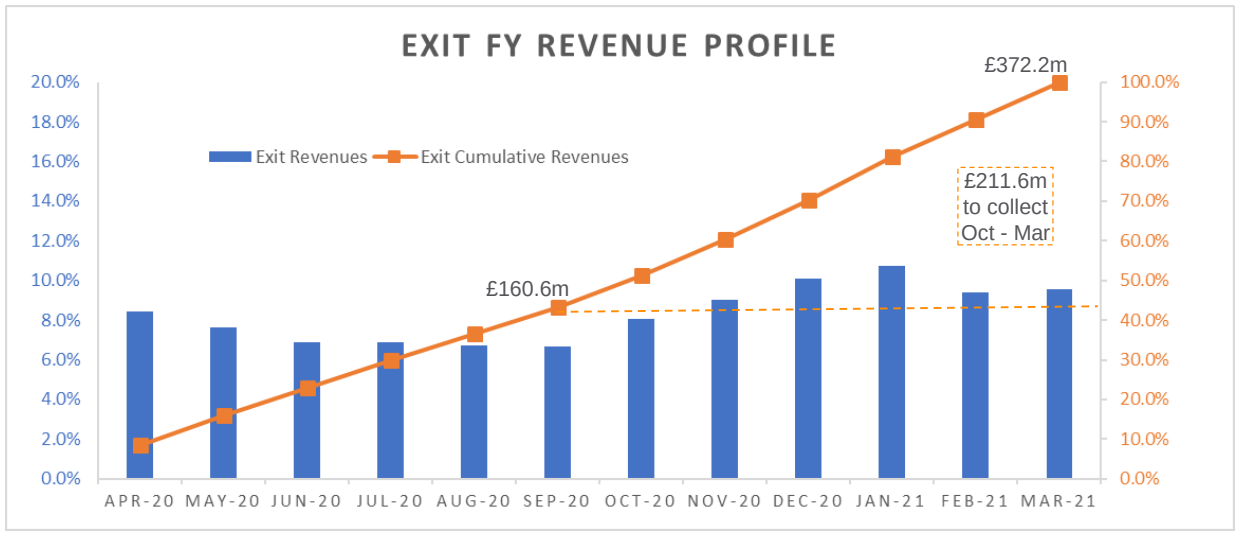
- Capacity profiles are flatter across the year.
- Commodity profiles are volume driven, and subject to much greater seasonal variation.

Revenue Profiles: Apr-Sep

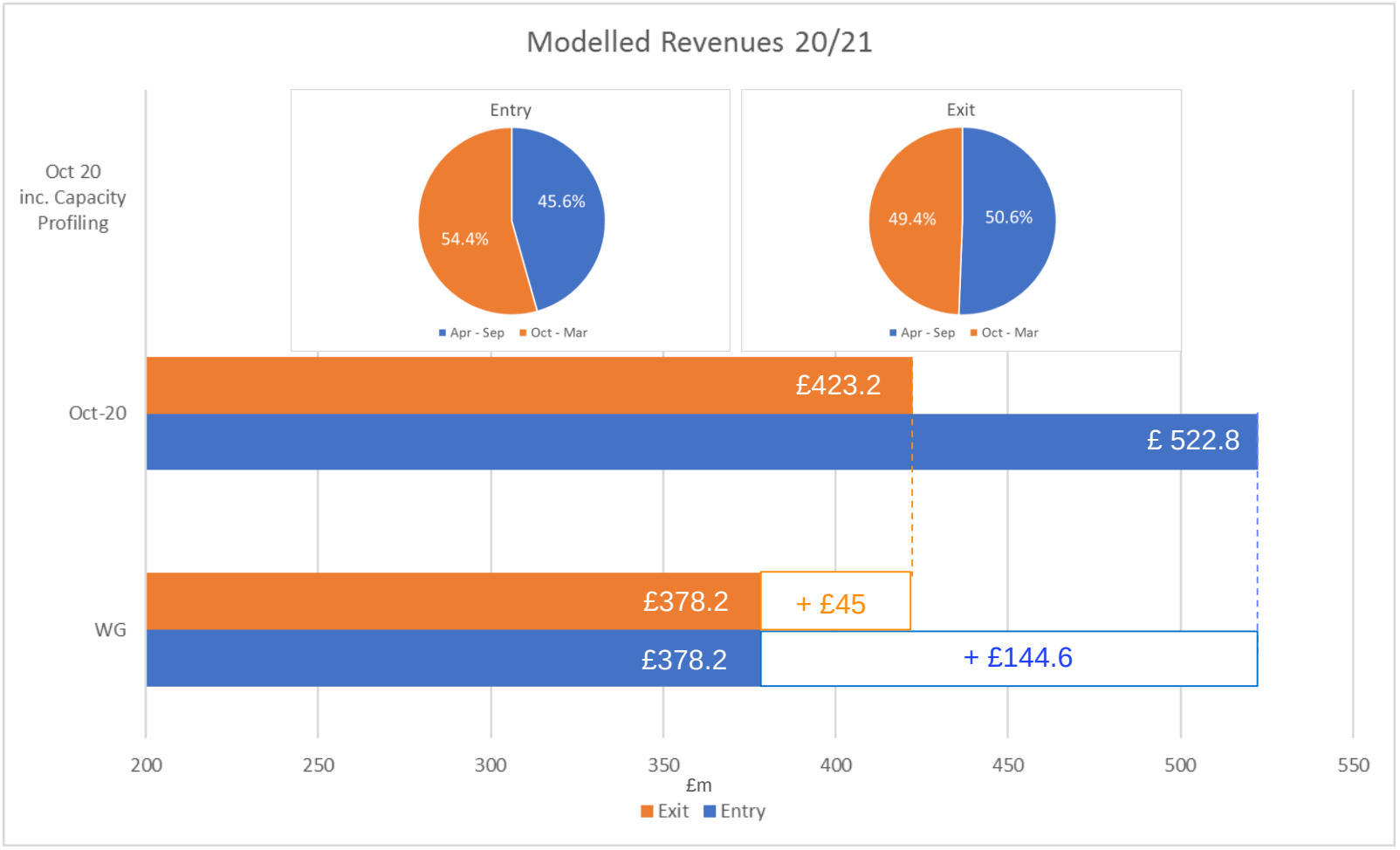




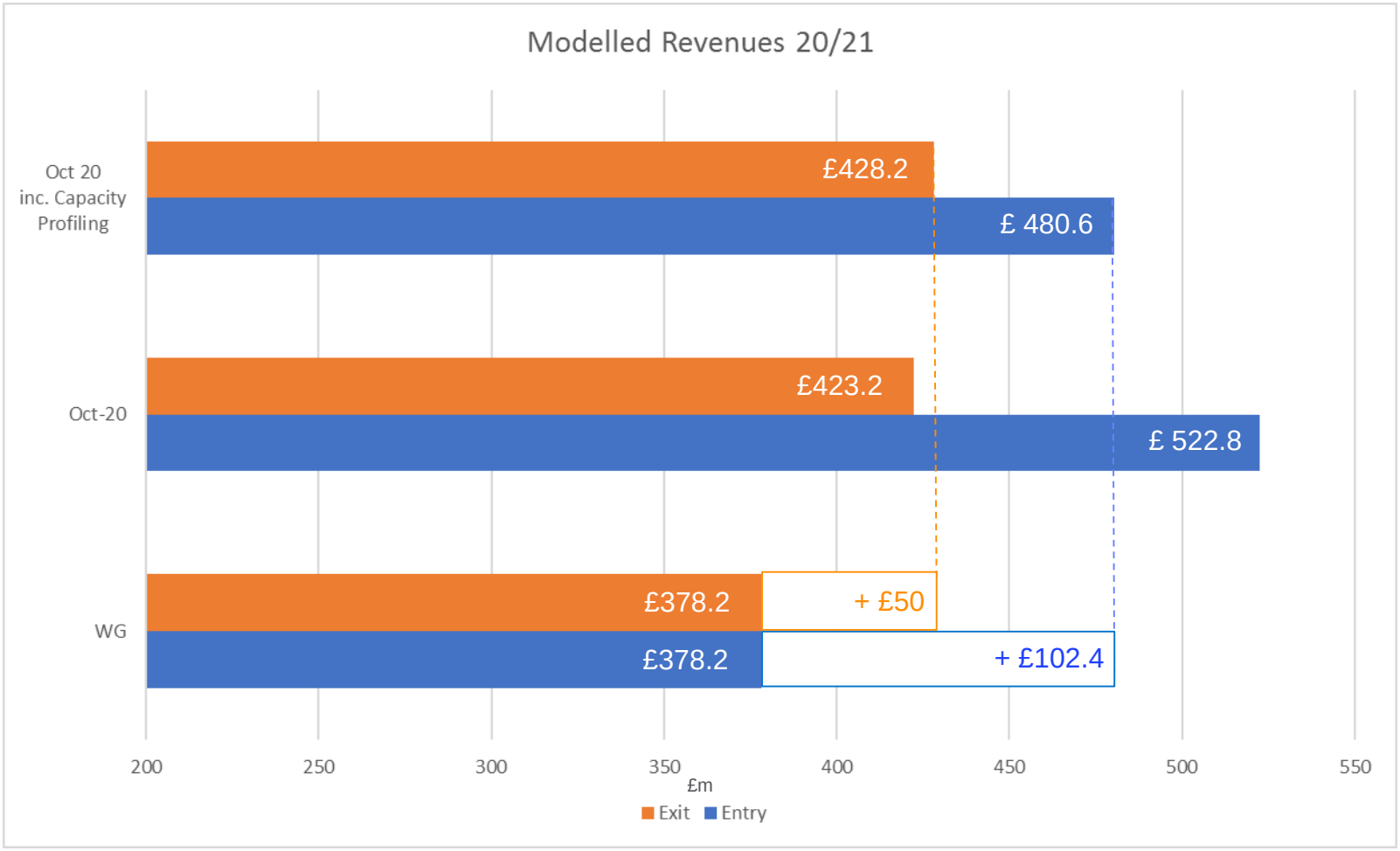




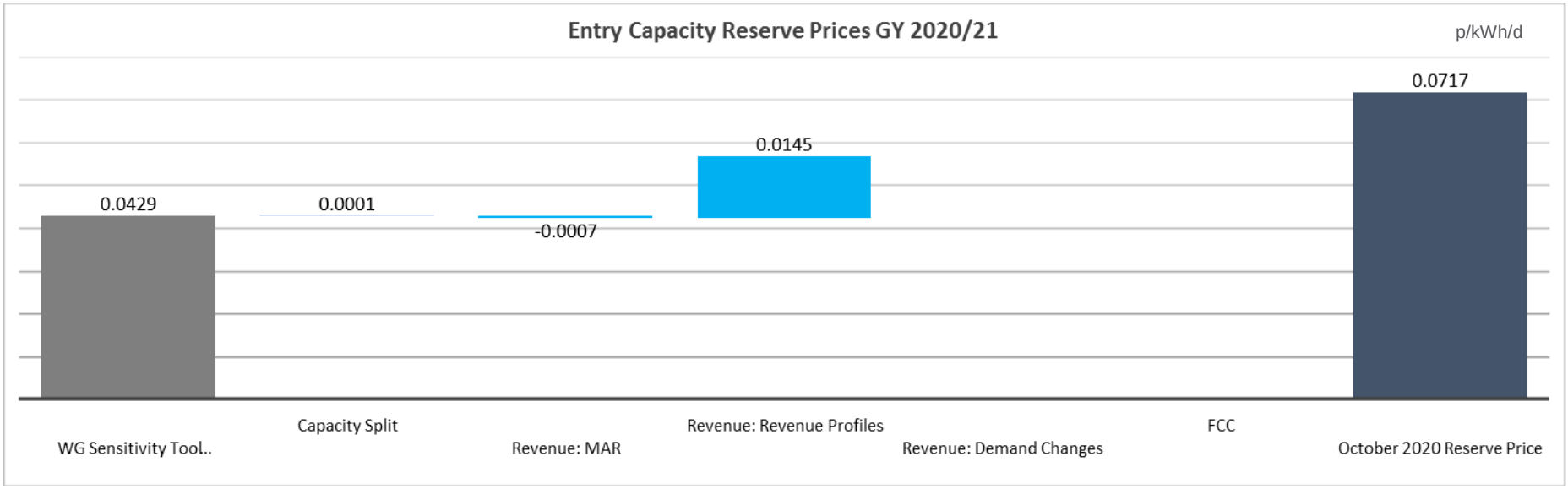
Revenue Profiles: Modelled Revenues

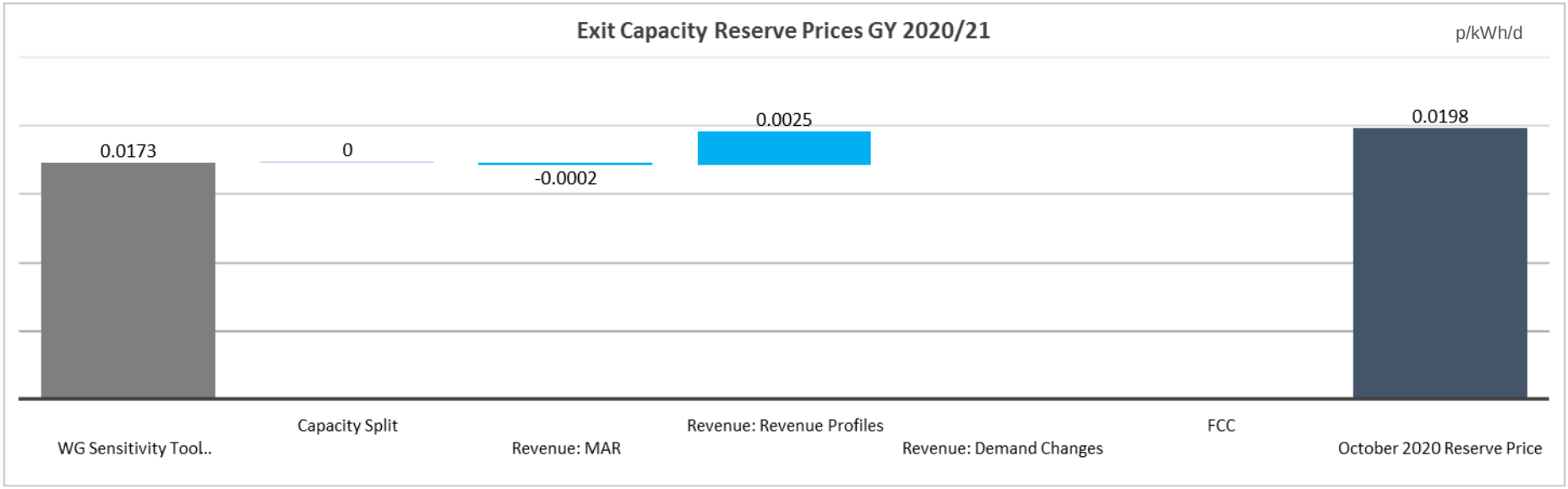


Revenue Profiles: Modelled Revenues



Revenue Profiles: Apr-Sep – Impact on Reserve Prices



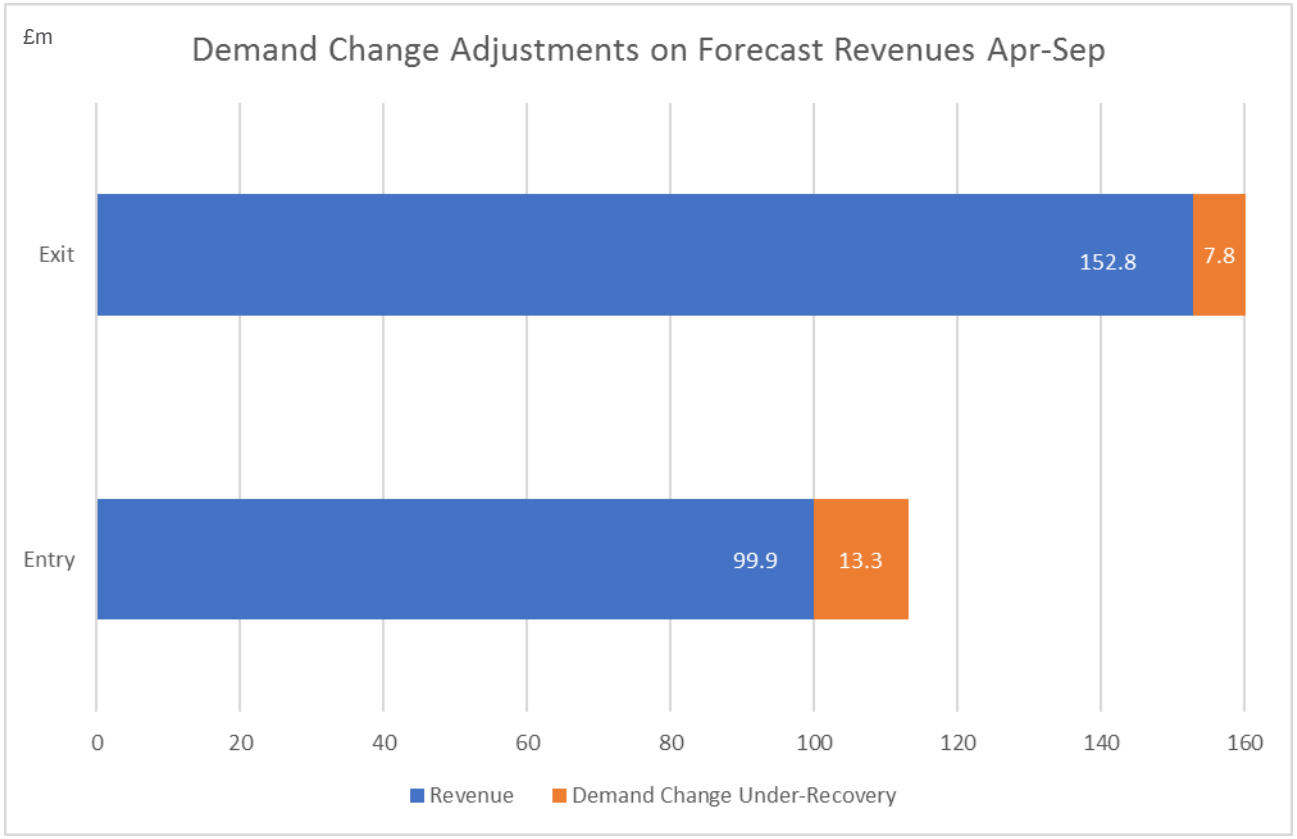


Revenue: Demand Changes

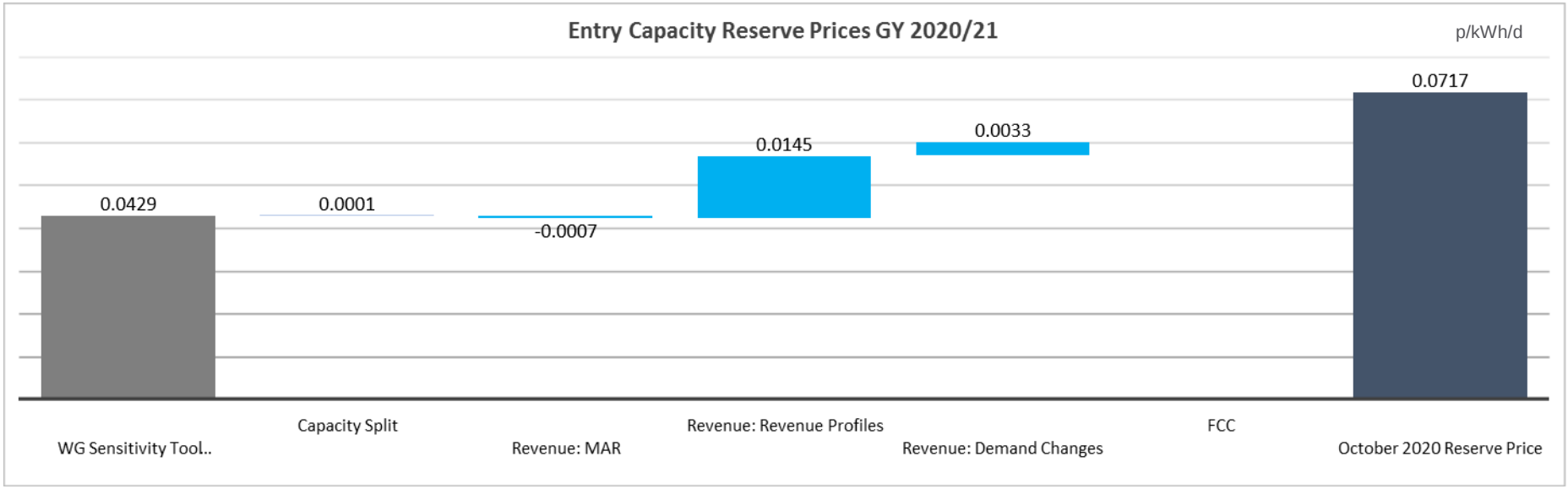
Revenue adjustments made to account for forecast under-recovery of phased revenues in April – September, partially due to impact of COVID-19 on Commodity volumes.

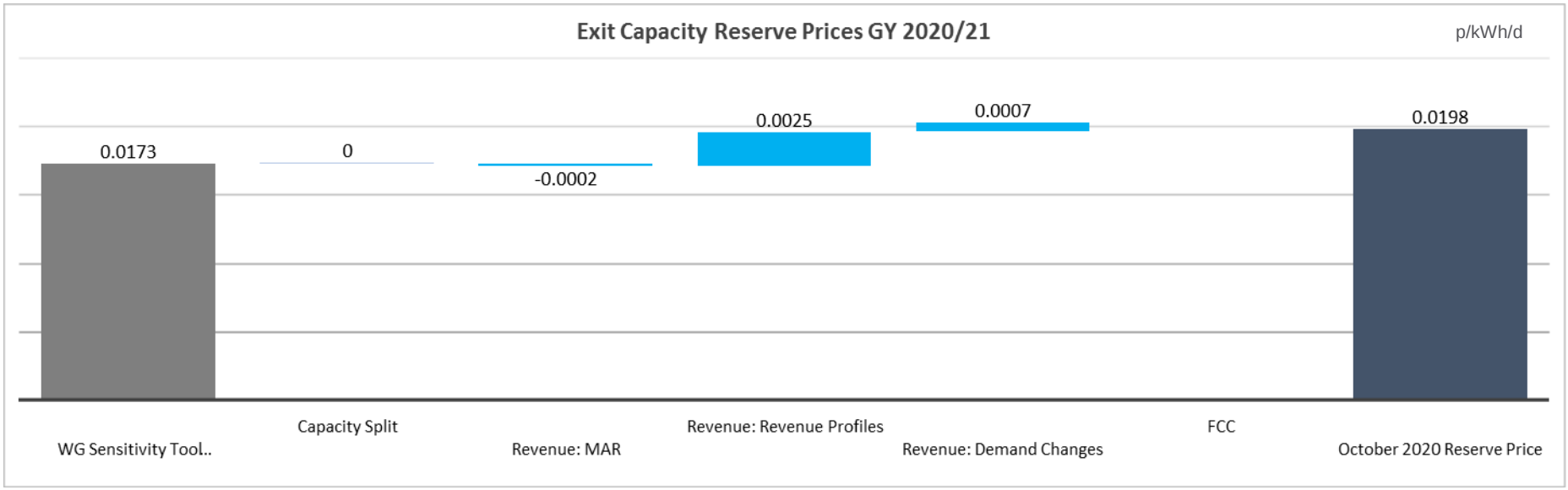
- Adjustments in line with impact assessment undertaken by National Grid Finance on forecast revenues.
  - April – 15% reduction in revenues (based on actuals - 5% reduction due to weather, and 10% due to COVID)
  - May & June – Forecast reduction of 10% on volume based income due to COVID
  - July - September – as per forecast phasing – no COVID adjustments.

Revenue: Demand Change Adjustments



Revenue: Demand Changes – Impact on Reserve Prices



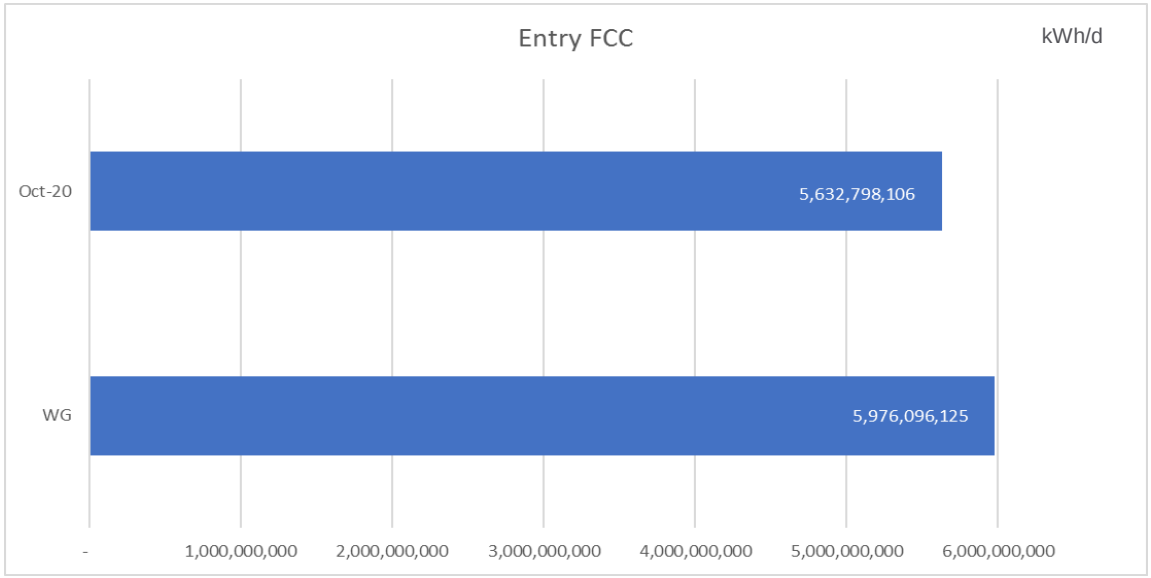


Forecasted Contracted Capacity (FCC)

FCC is a forecast of capacity bookings at each Entry and Exit Point.

- Values (kWh/d) determined in line with the FCC Methodology.
- Updated annually for use in the Reserve Price calculation
  - FCC Calculated for all Entry and Exit Points (which are not GDN Exit Points) by taking the greater of:
    a) Existing Contracts (Y) – Entry Points only
    b) Non-zero priced historical capacity sales for previous Gas Year (Y-2)
    c) Historical flow for previous available Gas Year (Y-2)
    d) Forecast Supply or Demand in the relevant Gas Year (Y)
    e) PARCA reserved capacity in the relevant Gas Year (Y)
- The FCC is calculated for GDN Exit Points as the latest capacity booked for the Gas Year (Y-1) at the time of price setting.
- By exception National Grid can apply different principles.

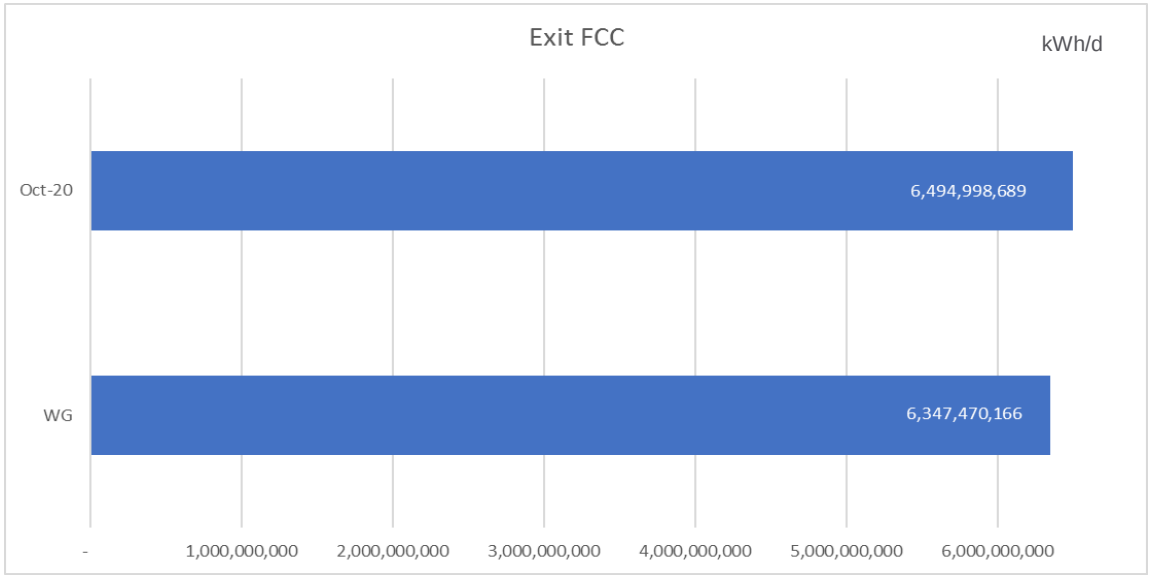
Forecasted Contracted Capacity (FCC)



Entry FCC

Entry FCC has decreased by 343,298,019 kWh/d

- 5.7%

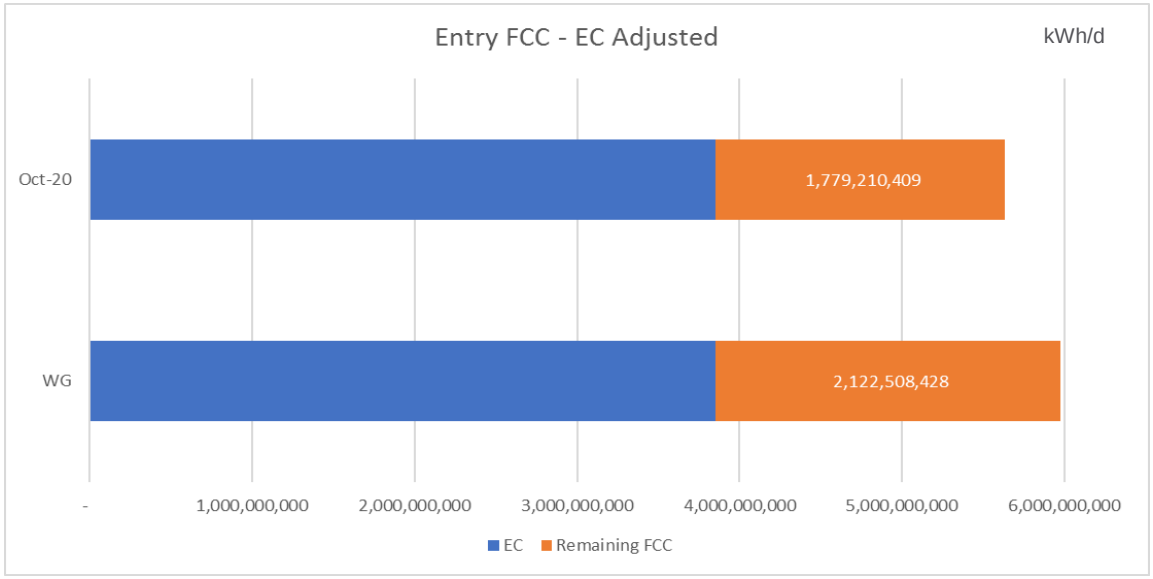


Exit FCC

Exit FCC has increased by 147,528,523 kWh/d

+ 2.3%

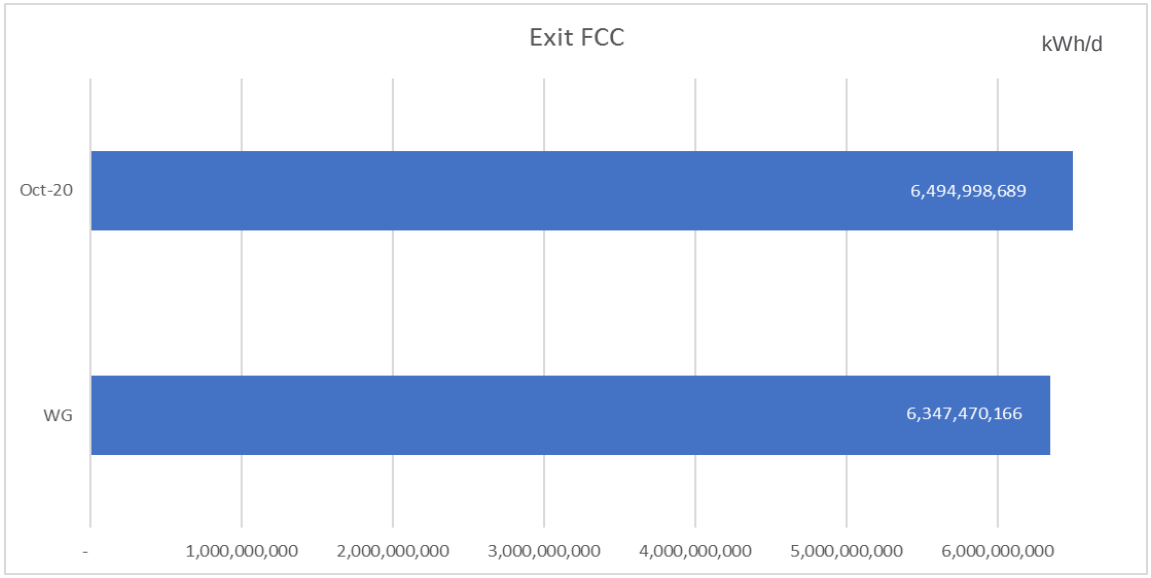
FCC – Entry Adjusted for Existing Contracts (EC)



Entry FCC
EC Adjusted

EC Adjusted Entry FCC has decreased by 343,298,019 kWh/d

- 16.2%



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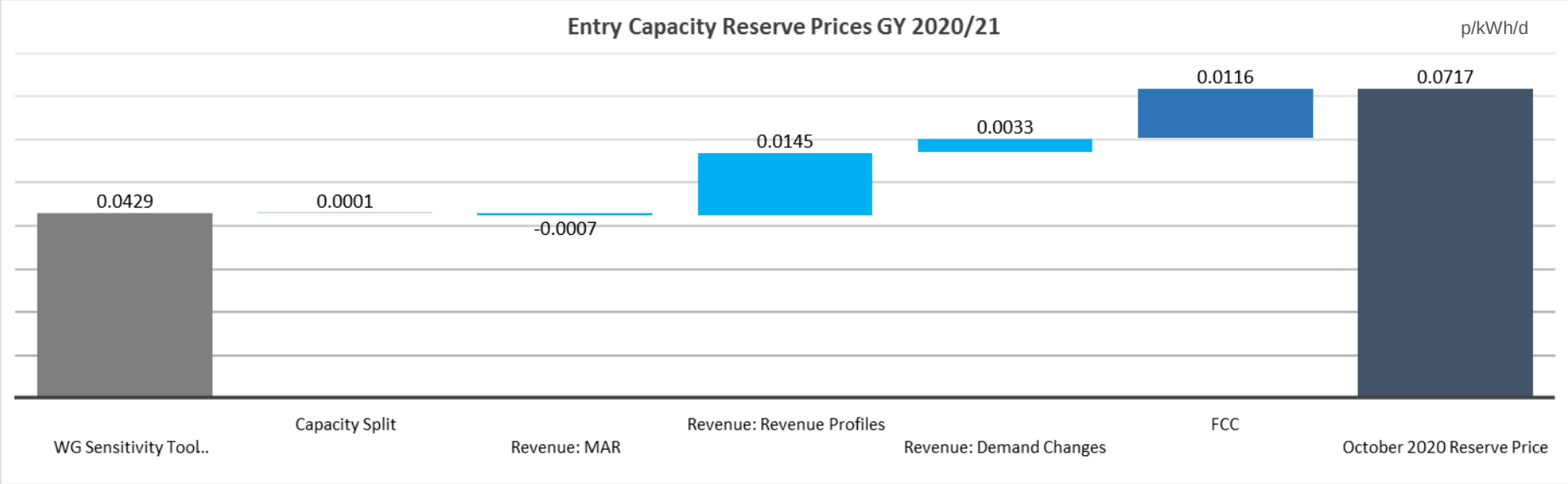
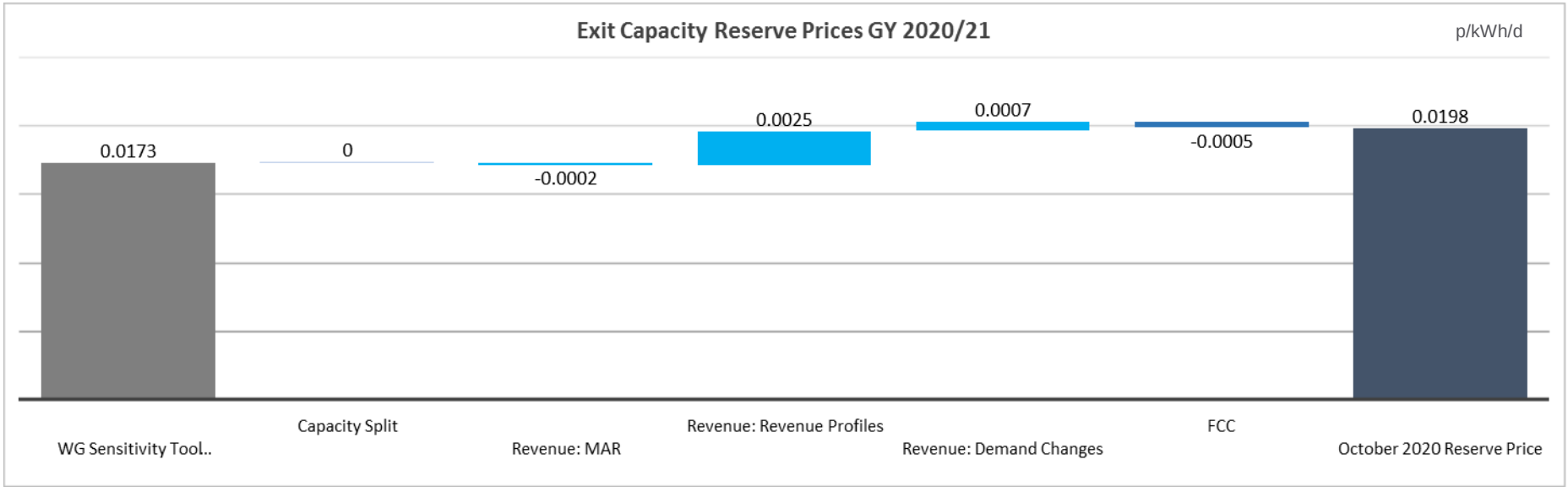
FCC – Impact on Reserve Prices





Gas
Transmission

Contact details

Gas Transportation Charges and related areas

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Questions and Contact information for Charging and Capacity

Regulatory changes and new methodology

Email: box.gsoconsultations@nationalgrid.com

General charging questions on prices and publications

Email: box.NTSGasCharges@nationalgrid.com

Capacity questions

Email: capacityauctions@nationalgrid.com

Gas Market Change – Contact Us on Regulatory / UNC Change matters

COVID-19 Mods

- In response to Covid-19 impacts a number of Urgent modifications have been raised by the market to address distinct challenges or introduce temporary arrangements.
- Darren Lond
  Darren.lond@nationalgrid.com
  07769 724892

Charging Review

- Amending the Gas Transmission Charging regime to better meet relevant charging objectives and customer/stakeholder provided objectives for Transportation charges
- Colin Williams
  colin.williams@nationalgrid.com
  07785 451776

Gas Blending

- To assess the operational feasibility and regulatory / commercial issues associated with offering gas quality blending services at NTS entry points
- Phil Hobbins
  philip.hobbins@nationalgrid.com
  07966 865 623

Access Review

- To review the principles and establish a long-term strategy for the NTS capacity access regime
- Jen Randall
  jennifer.randall@nationalgrid.com
  07768 251404

Other Queries

- Queries for National Grid Consultations: box.GSOConsultations@nationalgrid.com
- All other queries: box.OperationalLiaison@nationalgrid.com

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Any Questions?

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