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# UNC 0728/A/B/C/D: Managing Inefficient bypass in Charging

UNC 0728/A/B/C/D: 24 June 2020

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# Agenda

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# Agenda

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# 01: Introduction and scope

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# Introduction

- UNC0728/A/B/C/D were raised formally in June 2020, requesting urgency for their progression through the UNC change process. This was to ensure that implementation of the change could be achieved as quickly as possible.
- Ofgem granted the urgency request on 12 June 2020.
- Full details of all 0728 proposals including analysis and legal text is included on the following page of the Joint Office of Gas Transporters website:
  - <https://www.gasgovernance.co.uk/0728>
- In order to facilitate the expedited change request (urgency), prior to the UNC0678A decision National Grid ran an informal consultation, using Gas Charging Discussion Document 12 (GCD12), that aimed to support early views on the proposals to enable a shorter formal consultation on the UNC change for UNC 0728 proposals.
- Analysis presented as part of GCD 12 is re-presented here, updated and expanded to aid in the accelerated formal consultation for UNC 0728/A/B/C/D.

# Introduction: Scope of this Material

## This material and session is intended to:

- Help understanding of the five proposals presented under UNC0728, highlight the key features and the differences.
- Present a numerical comparison between the five proposals to show the sensitivities under each proposal and why impacts would be different across the proposals. This also highlights the assumptions made across the analysis.
- Provide a tool to assist interested parties to better understand the impacts for them. This is via the use of a calculator developed for this purpose and available to all who wish to use it. This will enable population by a party with data that may be relevant to them to assist in understanding the differences across the proposals.
- Provide a set of comparisons based on a UNC0678A baseline, in line with the Ofgem's decision published on 28 May 2020.
- In combination with the GCD12 material presented previously, to support those wishing to submit a consultation response to 0728/A/B/C/D due to close on 26 June 2020.

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# 02: Baseline UNC 0678A

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# Baseline UNC 0678A - Background

## Baseline for changes:

- In December 2019, Ofgem published their impact assessment and minded to position with a preference for 0678A and for implementation October 2020.
- Ofgem considered only UNC0678 and UNC0678A to be compliant with the EU Tariff Code – neither had a method of managing inefficient bypass of the NTS via Transportation Charging.
- The changes previously presented were developed in the expectation of 0678 or 0678A being approved
- UNC0678A was approved by Ofgem on 28 May 2020 for implementation on 01 October 2020
- The analysis presented in this presentation uses the methodology as of 01 October 2020 as the baseline.



# Baseline UNC 0678A - Changes it would make

## Key aspects of 0678A

- **Transmission Services (TS)**
  - Postage Stamp based Capacity Charges (i.e. one price for Entry Capacity and one Price for Exit Capacity) – no geographic variation. Capacity reserve prices linked to revenue to better facilitate revenue recovery from capacity charges.
  - Capacity (except for legacy Entry bought before 6 April 2017) payable prices change year to year.
  - No Commodity charges for Transmission Services (TS).
  - Any revenue recovery (to manage over or under recovery) will be via a capacity based charge – levied separately to capacity reserve charges and based on bookings
- **General Non-Transmission Services (GNTS)**
  - General Non-Transmission Services (GNTS) broadly aligns to SO charges as they stand now, with some exceptions.
  - Some targeted charges (e.g. DN Pensions Deficit, St Fergus Compression, Metering) with the remainder recovered by General Non Transmission Services Entry and Exit Charges

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## 03: UNC 0728/A/B/C/D

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# Mechanics of UNC 0728 and Alternatives

## Common Characteristics

- Transmission Services Discount is applied to Entry Capacity Reserve Price and Exit Capacity Reserve Price
- An Eligible Route is made up of a defined Entry Point and Exit Point, and is specific to a single Shipper.
- Existing Contracts are not eligible for discount, but can be used to enable discounts at the Exit side of a Route
- Traded Capacity is not eligible for discount, but Firm capacity traded in can be used at either end of a Route to enable discount at the opposite end.

# Mechanics of UNC 0728

## Transmission Services

- Initial Eligible Quantity Entry based on (Lower of Entry Capacity, Exit Capacity, Entry Allocation, Exit Allocation) less any Existing Contract Capacity
- Initial Eligible Quantity Exit based on Lower of Entry Capacity, Exit Capacity, Entry Allocation, Exit Allocation
- Maximum Eligible Route Distance of 18km
- The Transmission Services Discount starts at 90% and reduces as the distance increases, with a collar of 10%

## General Non-Transmission Services

- No discount applied

# Mechanics of UNC 0728A

## Transmission Services

- Initial Eligible Quantity Entry based on (Lower of Entry Capacity, Exit Capacity, Entry Allocation, Exit Allocation) less any Existing Contract Capacity
- Initial Eligible Quantity Exit based on Lower of Entry Capacity, Exit Capacity, Entry Allocation, Exit Allocation
- Maximum Eligible Route Distance of 18km
- The Transmission Services Discount starts at 90% and reduces as the distance increases, with a collar of 10%

## General Non-Transmission Services

- Discount applied of 80% to any eligible Entry and Exit flows (limited to lower of Exit or Entry) providing route is eligible under Transmission Services.

# Mechanics of UNC 0728B

## Transmission Services

- Initial Eligible Quantity Entry based on (Lower of Entry Capacity, Exit Capacity, Entry Allocation, Exit Allocation) less any Existing Contract Capacity
- Initial Eligible Quantity Exit based on Lower of Entry Capacity, Exit Capacity, Entry Allocation, Exit Allocation
- Maximum Eligible Route Distance of 28km
- The Transmission Services Discount starts at 90% and reduces as the distance increases, with a collar of 10%

## General Non-Transmission Services

- No discount applied

# Mechanics of UNC 0728C

## Transmission Services

- Initial Eligible Quantity Entry based on (Lower of Entry Capacity, Exit Capacity) less any Existing Contract Capacity
- Initial Eligible Quantity Exit based on Lower of Entry Capacity, Exit Capacity
- Maximum Eligible Route Distance of 18km
- The Transmission Services Discount starts at 90% and reduces as the distance increases, with a collar of 10%

## General Non-Transmission Services

- No discount applied

# Mechanics of UNC 0728D

## Transmission Services

- Initial Eligible Quantity Entry based on (Lower of Entry Capacity, Exit Capacity, Entry Allocation, Exit Allocation) less any Existing Contract Capacity
- Initial Eligible Quantity Exit based on Lower of Entry Capacity, Exit Capacity, Entry Allocation, Exit Allocation
- Maximum Eligible Route Distance of 5km
- Flat discount of 90% for all users within boundary

## General Non-Transmission Services

- Discount applied of 94% to any eligible Entry and Exit flows (limited to lower of Exit or Entry) providing route is eligible under Transmission Services.



# Overview UNC 0728/A/B/C/D proposals

		0728	0728A	0728B	0728C	0728D	
		v1.0 (9/6/2020)	v1.0 (9/6/2020)	v1.0 (9/6/2020)	v1.0 (9/6/2020)	v1.0 (9/6/2020)	
Charge Group	Element	National Grid	South Hook Gas Company	Vitol SA Geneva	RWE	ENI Trading and Shipping s.p.A	
Transmission Services Conditional Discount	Charge which the discount is applied to	Entry Capacity Reserve Price and Exit Capacity Reserve Price	Entry Capacity Reserve Price and Exit Capacity Reserve Price	Entry Capacity Reserve Price and Exit Capacity Reserve Price	Entry Capacity Reserve Price and Exit Capacity Reserve Price	Entry Capacity Reserve Price and Exit Capacity Reserve Price	
	DCSL Distance (km)	18	18	28	18	5	
	Maximum Discount (%)	90	90	90	90	90	
	Minimum Discount (%)	10	10	10	10	90	
	Initial Eligible Quantity (Entry)	(Lower of Entry Capacity, Exit Capacity, Entry Allocation, Exit Allocation) less any Existing Contract Capacity	(Lower of Entry Capacity, Exit Capacity, Entry Allocation, Exit Allocation) less any Existing Contract Capacity	(Lower of Entry Capacity, Exit Capacity, Entry Allocation, Exit Allocation) less any Existing Contract Capacity	(Lower of Entry Capacity, Exit Capacity, Entry Allocation, Exit Allocation) less any Existing Contract Capacity	(Lower of Entry Capacity, Exit Capacity) less any Existing Contract Capacity	(Lower of Entry Capacity, Exit Capacity, Entry Allocation, Exit Allocation) less any Existing Contract Capacity
	Initial Eligible Quantity (Exit)	Lower of Entry Capacity, Exit Capacity, Entry Allocation, Exit Allocation	Lower of Entry Capacity, Exit Capacity, Entry Allocation, Exit Allocation	Lower of Entry Capacity, Exit Capacity, Entry Allocation, Exit Allocation	Lower of Entry Capacity, Exit Capacity, Entry Allocation, Exit Allocation	Lower of Entry Capacity, Exit Capacity	Lower of Entry Capacity, Exit Capacity, Entry Allocation, Exit Allocation
Non-Transmission Services Conditional Discount	Charge which the discount is applied to	N/A	General Non-Transmission Services Charge	N/A	N/A	General Non-Transmission Services Charge	
	Discount (%)	N/A	80	N/A	N/A	94	
	Eligible Quantity	N/A	Lower of Entry Allocation, Exit Allocation	N/A	N/A	Lower of Entry Allocation, Exit Allocation	

Variation in treatment of element from UNC Modification Proposal 0728

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# 04: Analysis UNC 0728/A/B/C/D

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# Comparison of UNC 0728 Alternatives

Using the same format as analysis given in the UNC0670R Review workgroups and GCD12, we have run a comparison of each of the five proposals presented using two sets of prices.

## Assumptions

- The analysis was run based on the parameters defined in UNC0678A as the Baseline for the Conditional Product to work against.
- Analysis was first run for Gas Year 2020/21 using version 3.1 of the Transmission Services Sensitivity Tool provided as part of 0678 and its alternatives for consistency with previous analysis, then repeated based on the published rates for Oct 2020/21.
- Both sets of data use the Forecasted Contracted Capacity values associated with the relevant pricing model, to simulate Capacity based Charges.
- Current throughput figures from sites currently using the NTS Optional Commodity Charge (OCC) product were used to enable calculation of the flow based General Non-Transmission Services Charges and socialisation figures.
- A forecasted General Non-Transmission Services Rate of 0.0104p/kWh was used in the first iteration, a rate of 0.0134p/kWh was used for second iteration based on published rates.

# Comparison of UNC 0728 Alternatives

	Description
<b>Contribution: TS Standard Rate</b>	Ineligible Capacity for eligible routes (as defined by the business rules applicable to the alternative) multiplied by Standard Entry and Exit Rates
<b>Contribution: TS Discounted Rate</b>	Eligible Capacity multiplied by Standard Rates and Discount Factor
<b>Contribution: GNTS Standard Rate</b>	Ineligible Flow for eligible routes multiplied by Standard General Non-Transmission Rates
<b>Contribution: GNTS Discounted Rate</b>	Eligible Flow multiplied by Standard General Non-Transmission Rates
<b>TO MAR 2020/21</b>	Maximum Allowed Revenue value required to collect Transmission Services
<b>Potential TS Socialisation</b>	Revenue effectively not paid due to discounts applicable to Capacity Charges
<b>TS Socialisation as % of TO MAR</b>	<b>Transmission Services Revenue effectively not paid, expressed as a percentage of TO Maximum Allowed Revenue</b>
<b>SO MAR 2020/21</b>	Maximum Allowed Revenue value required to collect General Non-Transmission Services
<b>GNTS Socialisation</b>	Revenue not paid due to discounts applicable to Flow Charges
<b>GNTS Socialisation as % of SO MAR</b>	<b>General Non-Transmission Services Revenue not paid, expressed as a percentage of SO Maximum Allowed Revenue</b>
<b>Total MAR 2020/21</b>	Total Maximum Allowed Revenue to recover both TS and GNTS values
<b>Total Socialisation</b>	Combined socialisation figure due to both TS and GNST discounts
<b>Total Socialisation as % of Total MAR</b>	<b>Total revenue not paid expressed as a percentage of total Maximum Allowed Revenue</b>
<b>Routes Considered</b>	Number of currently active NTS OCC routes which are able to achieve a discount based on the respective alternative.
<b>Max Effective Rate Discount</b>	The highest discount level achieved by any route under the respective alternative
<b>Contribution: TS Standard Rate</b>	The distance in km of the longest route which can achieve a discount under the respective alternative

# Comparison of UNC 0728 Alternatives

	0718	0718A	0718B	0718C	0718D
<b>Contribution: TS Standard Rate</b>	£91,050,510.89	£91,050,510.89	£112,398,543.94	£0.00	£81,761,187.41
<b>Contribution: TS Discounted Rate</b>	£12,599,653.97	£12,599,653.97	£29,932,749.22	£39,190,887.90	£6,334,063.36
<b>Contribution: GNTS Standard Rate</b>	£23,335,962.13	£0.00	£30,859,610.75	£23,335,962.13	£0.00
<b>Contribution: GNTS Discounted Rate</b>	£0.00	£4,667,192.43	£0.00	£0.00	£1,315,339.90
<b>TO MAR 2020/21</b>	£756,391,600.33	£756,391,600.33	£756,391,600.33	£756,391,600.33	£756,391,600.33
<b>Potential TS Socialisation</b>	£54,825,410.84	£54,825,410.84	£59,230,544.91	£120,262,440.82	£57,006,570.28
<b>TS Socialisation as % of TO MAR</b>	<b>7.2%</b>	<b>7.2%</b>	<b>7.8%</b>	<b>15.9%</b>	<b>7.5%</b>
<b>SO MAR 2020/21</b>	£209,069,000.00	£209,069,000.00	£209,069,000.00	£209,069,000.00	£209,069,000.00
<b>GNTS Socialisation</b>	£0.00	£18,668,769.70	£0.00	£0.00	£20,606,991.69
<b>GNTS Socialisation as % of SO MAR</b>	<b>0.0%</b>	<b>8.9%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>9.9%</b>
<b>Total MAR 2020/21</b>	£965,460,600.33	£965,460,600.33	£965,460,600.33	£965,460,600.33	£965,460,600.33
<b>Total Socialisation</b>	£54,825,410.84	£73,494,180.54	£59,230,544.91	£120,262,440.82	£77,664,151.96
<b>Total Socialisation as % of Total MAR</b>	<b>5.7%</b>	<b>7.6%</b>	<b>6.1%</b>	<b>12.5%</b>	<b>8.0%</b>
<b>Routes Considered</b>	17	17	22	19	15
<b>Max Effective Rate Discount</b>	67%	87%	67%	90%	91%

The values presented here are based on the rates originally modelled as part of 0718/GCD12 analysis and should be taken as a means to better understand the sensitivities across each of the proposals, and not a view of the precise final charges in the event any of the modifications, when presented, are approved.

# Comparison of UNC 0728 Alternatives (published rates)

	0728	0728A	0728B	0728C	0728D
<b>Contribution: TS Standard Rate</b>	£138,636,371.20	£138,636,371.20	£168,633,107.34	£0.00	£123,344,370.09
<b>Contribution: TS Discounted Rate</b>	£19,196,277.79	£19,196,277.79	£45,604,218.22	£61,496,136.96	£9,650,299.94
<b>Contribution: GNTS Standard Rate</b>	£25,579,804.64	£0.00	£33,826,881.01	£25,579,804.64	£0.00
<b>Contribution: GNTS Discounted Rate</b>	£0.00	£5,115,960.93	£0.00	£0.00	£1,441,814.88
<b>TO MAR 2020/21</b>	£948,832,824.00	£948,832,824.00	£948,832,824.00	£948,832,824.00	£948,832,824.00
<b>Potential TS Socialisation</b>	£83,529,581.00	£83,529,581.00	£90,241,049.23	£181,129,324.23	£86,852,699.45
<b>TS Socialisation as % of TO MAR</b>	<b>8.8%</b>	<b>8.8%</b>	<b>9.5%</b>	<b>19.1%</b>	<b>9.2%</b>
<b>SO MAR 2020/21</b>	£212,456,147.98	£212,456,147.98	£212,456,147.98	£212,456,147.98	£212,456,147.98
<b>GNTS Socialisation</b>	£0.00	£24,009,114.88	£0.00	£0.00	£26,559,747.88
<b>GNTS Socialisation as % of SO MAR</b>	<b>0.0%</b>	<b>11.3%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>12.5%</b>
<b>Total MAR 2020/21</b>	£1,161,288,971.98	£1,161,288,971.98	£1,161,288,971.98	£1,161,288,971.98	£1,161,288,971.98
<b>Total Socialisation</b>	£83,529,581.00	£107,538,695.88	£90,241,049.23	£181,129,324.23	£113,412,447.33
<b>Total Socialisation as % of Total MAR</b>	<b>7.2%</b>	<b>9.3%</b>	<b>7.8%</b>	<b>15.6%</b>	<b>9.8%</b>
<b>Routes Considered</b>	17	17	22	18	15
<b>Max Effective Rate Discount</b>	72%	88%	72%	90%	91%

The values presented here are based on the published rates for Oct-2020. These are indicative values and should be taken as a means to better understand the sensitivities across each of the proposals, and not a view of the precise final charges in the event any of the modifications, when presented, are approved.

# Comparison of UNC 0728 Alternatives:

## Points to note

- 0728 & 0728A offer the same Transmission Services discount to the same 17 routes, so the Transmission Services socialisation figures are identical, they diverge when considering the General Non-Transmission Services socialisation.
- 0728B works over a longer distance so enables 5 additional routes, increasing the Transmission Services socialisation
- For 0728C we have used the minimum of the Entry and Exit Forecasted Contracted Capacity (FCC) to calculate the capacity eligible for discount, this is regardless of whether or not that capacity has been utilised.
- This means two additional routes within the distance boundary become eligible for the capacity discount, but because they have no flow registered against them the General Non-Transmission Services contribution still matches 0728, here it is the Transmission Services contribution which differs.
- 0728D works over a shorter distance and so benefits fewer routes, but provides a flat discount for Transmission Services and an increased discount on General Non-Transmission Services charges and this increases the socialisation in relation to 0728.

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# 05: Existing Contract Scenarios

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# Existing Contract Scenarios

## Why?

- One of the common themes mentioned in workgroups and the GCD12 responses has been the request for inclusion of Existing Contracts in to our potential socialisation modelling
- Current analysis doesn't assess the effects of Existing Contracts on the socialisation which would likely reduce the level presented in the previous slides
- How the Existing Contracts will be utilised is likely to be different for each Entry Point and Shipper combination.
- We have made some assumptions on the following slides and modelled two scenarios, these provide a potential range for consideration with respect to use of Existing Contracts and the conditional discounts.

# Existing Contract Scenarios

## Example:

- A Shipper wants to be able to use the conditional discount from a qualifying Entry Point to a qualifying Exit Point
- There are Existing Contracts at the Entry point
- The shipper has the option to either purchase new capacity from NGG or use Existing Contracts (e.g. traded in from Existing Contract holder)

## Analysis Assumptions:

- An Eligible Quantity (EQ) is calculated for each route based on Entry FCC, Exit FCC, Current Shorthaul Throughput
- FCC values used are as in the latest set of price calculations (5 June 2020)
- Each Entry Point has a level of Existing Contracts in place
- The difference between the level of Existing Contracts and Entry FCC is considered as Available New Capacity

# Existing Contract Scenarios

## Scenario 1:

- The Shipper purchases entry capacity directly from NGG to obtain the applicable % discount on eligible quantities and pays full price for any un-utilised capacity (under 0728/A/B/D).
- If the EQ is lower than the level of Available New Capacity, Existing Contracts are not utilised.
- Only where the EQ exceeds the Available New Capacity are the Existing Contracts traded in to enable discount on the remainder of the EQ.

## Scenario 2:

- The Shipper trades in entry capacity from the holder of the Existing Contract
- Existing Contracts are traded in up to the level of the EQ.
- Where the EQ exceeds the level of Existing Contracts, Available New Capacity is purchased to enable the discount on the remainder of the EQ.

# Existing Contract Scenarios - 0728

	0728	0728 (EC Scenario 1)	0728 (EC Scenario 2)
Contribution: TS Standard Rate	£138,636,371.20	£159,159,923.00	£219,125,388.18
Contribution: TS Discounted Rate	£19,265,050.44	£15,623,783.04	£4,170,263.31
Contribution: Gen Non-TS	£30,067,489.66	£30,067,489.66	£30,067,489.66
Potential TS Socialisation	£83,460,808.36	£66,578,523.96	£18,066,578.52
TS Socialisation as % of TO MAR	8.8%	7.0%	1.9%
Gen Non-TS Socialisation	£0.00	£0.00	£0.00
Gen Non-TS Socialisation as % of SO MAR	0.0%	0.0%	0.0%
Total Socialisation as % of Total MAR	7.2%	5.7%	1.6%
Routes Considered	17	17	17
Max Effective Rate Discount	69.6%	69.6%	33.3%
Longest Route Considered	17.7	17.7	17.7

In year one, the combined TS and GNTS socialisation under 0728 is likely to be between £18m and £66.6m. Approximately 1.6% - 5.7% of Total MAR.

However, as Existing Contracts expire this will change each year under all scenarios until they converge.

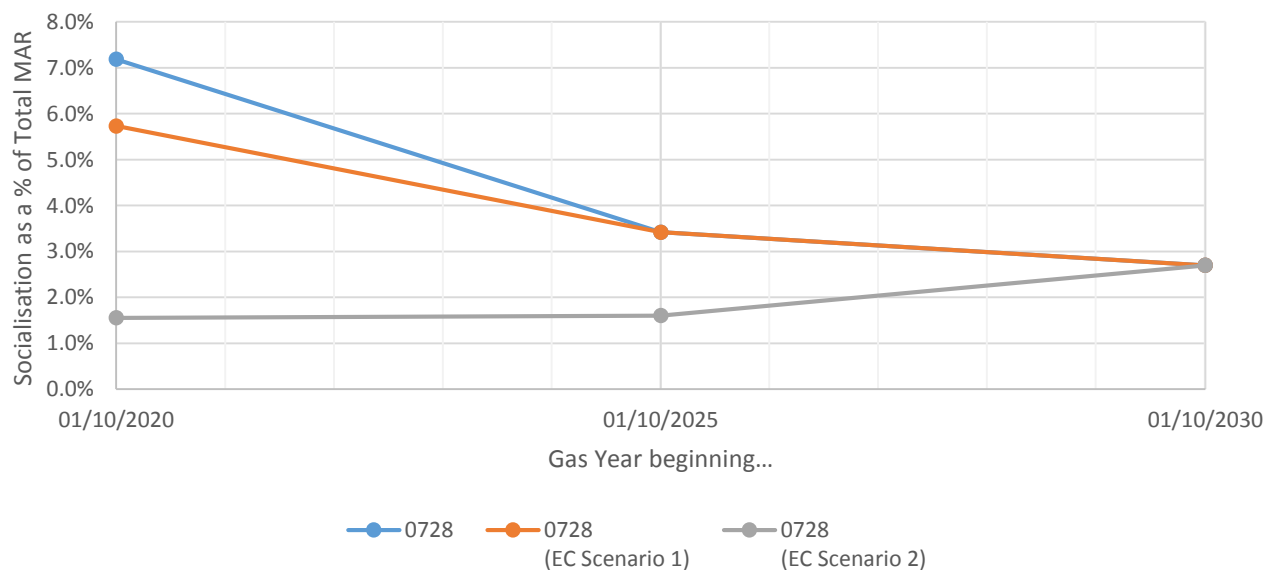
# Existing Contract Scenarios - 0728

Repeating the analysis for future years shows that as the Existing contracts expire the socialisation levels under each scenario converge.

The socialisation figure decreases generally as the levels of new Capacity increase and the shortfall due to Existing Contracts lessens, reducing prices for new Capacity.

	0728	0728 (EC Scenario 1)	0728 (EC Scenario 2)
01/10/2020	7.2%	5.7%	1.6%
01/10/2025	3.4%	3.4%	1.6%
01/10/2030	2.7%	2.7%	2.7%

Effect on Socialisation  
of Lapsing Existing Contracts



# Existing Contract Scenarios – 0728A

	0728A	0728A (EC Scenario 1)	0728A (EC Scenario 2)
Contribution: TS Standard Rate	£138,636,371.20	£159,159,923.00	£219,125,388.18
Contribution: TS Discounted Rate	£19,265,050.44	£15,623,783.04	£4,170,263.31
Contribution: Gen Non-TS	£6,058,374.78	£6,058,374.78	£6,058,374.78
Potential TS Socialisation	£83,460,808.36	£66,578,523.96	£18,066,578.52
TS Socialisation as % of TO MAR	8.8%	7.0%	1.9%
Gen Non-TS Socialisation	£24,009,114.88	£24,009,114.88	£24,009,114.88
Gen Non-TS Socialisation as % of SO MAR	11.3%	11.3%	11.3%
Total Socialisation as % of Total MAR	9.3%	7.8%	3.6%
Routes Considered	17	17	17
Max Effective Rate Discount	87.7%	87.7%	79.9%
Longest Route Considered	17.7	17.7	17.7

In year one, the combined TS and GNTS socialisation under 0728A is likely to be between £42m and £107.5m. Approximately 3.6% - 9.3% of Total MAR.

However, as Existing Contracts expire this will change under all scenarios until they converge.

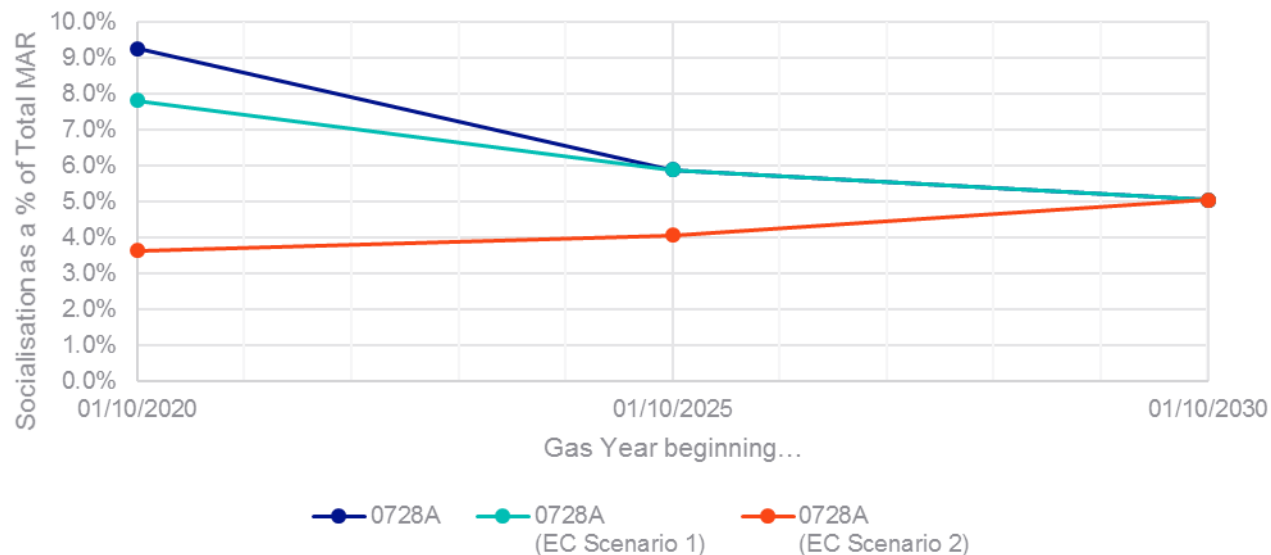
# Existing Contract Scenarios – 0728A

Repeating the analysis for future years shows that as the Existing contracts expire the socialisation levels under each scenario converge.

The socialisation figure decreases generally as the levels of new Capacity increase and the shortfall due to Existing Contracts lessens, reducing prices for new Capacity.

	0728A	0728A (EC Scenario 1)	0728A (EC Scenario 2)
01/10/2020	9.3%	7.8%	3.6%
01/10/2025	5.9%	5.9%	4.1%
01/10/2030	5.0%	5.0%	5.0%

Effect on Socialisation  
of Lapsing Existing Contracts



# Existing Contract Scenarios – 0728B

	0728B	0728B (EC Scenario 1)	0728B (EC Scenario 2)
Contribution: TS Standard Rate	£168,633,107.34	£189,156,659.13	£275,072,247.05
Contribution: TS Discounted Rate	£45,393,322.97	£42,370,187.69	£9,826,193.28
Contribution: Gen Non-TS	£39,761,421.54	£39,761,421.54	£39,761,421.54
Potential TS Socialisation	£90,451,944.48	£72,951,527.97	£19,579,934.46
TS Socialisation as % of TO MAR	9.5%	7.7%	2.1%
Gen Non-TS Socialisation	£0.00	£0.00	£0.00
Gen Non-TS Socialisation as % of SO MAR	0.0%	0.0%	0.0%
Total Socialisation as % of Total MAR	7.8%	6.3%	1.7%
Routes Considered	22	22	22
Max Effective Rate Discount	69.6%	69.6%	33.3%
Longest Route Considered	17.7	17.7	17.7

In year one, the combined TS and GNTS socialisation under 0728B is likely to be between £19.6m and £90.4m. Approximately 1.7% - 7.8% of Total MAR.

However, as Existing Contracts expire this will change under all scenarios until they converge.



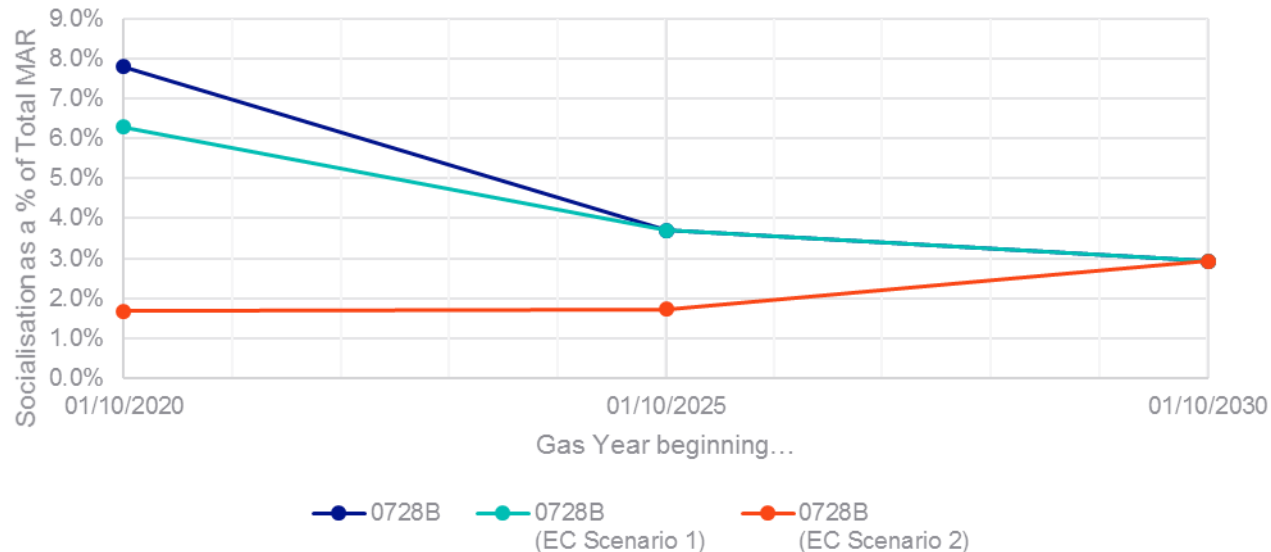
# Existing Contract Scenarios – 0728B

Repeating the analysis for future years shows that as the Existing contracts expire the socialisation levels under each scenario converge.

The socialisation figure decreases generally as the levels of new Capacity increase and the shortfall due to Existing Contracts lessens, reducing prices for new Capacity.

	0728B	0728B (EC Scenario 1)	0728B (EC Scenario 2)
01/10/2020	7.8%	6.3%	1.7%
01/10/2025	3.7%	3.7%	1.7%
01/10/2030	2.9%	2.9%	2.9%

Effect on Socialisation  
of Lapsing Existing Contracts



# Existing Contract Scenarios – 0728C

	0728C	0728C (EC Scenario 1)	0728C (EC Scenario 2)
Contribution: TS Standard Rate	£0.00	£80,710,339.51	£190,104,858.62
Contribution: TS Discounted Rate	£55,762,743.97	£40,239,575.19	£13,353,567.41
Contribution: Gen Non-TS	£30,067,489.66	£30,067,489.66	£30,067,489.66
Potential TS Socialisation	£186,862,717.23	£121,675,546.50	£39,167,035.16
TS Socialisation as % of TO MAR	19.7%	12.8%	4.1%
Gen Non-TS Socialisation	£0.00	£0.00	£0.00
Gen Non-TS Socialisation as % of SO MAR	0.0%	0.0%	0.0%
Total Socialisation as % of Total MAR	16.1%	10.5%	3.4%
Routes Considered	18	18	18
Max Effective Rate Discount	90.0%	90.0%	35.2%
Longest Route Considered	17.7	17.7	17.7

In year one, the combined TS and GNTS socialisation under 0728C is likely to be between £39.2m and £186.9m. Approximately 3.4% - 16.1% of Total MAR.

However, as Existing Contracts expire this will change under all scenarios until they converge. Under 0728C the convergence occurs after the latest modelled year.

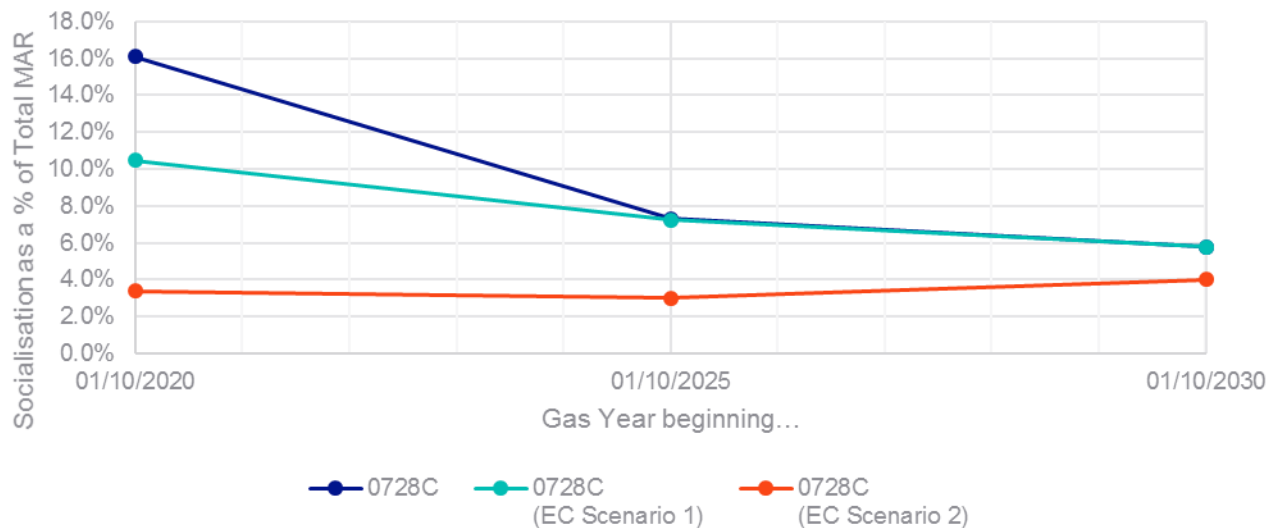
# Existing Contract Scenarios – 0728C

Repeating the analysis for future years shows that as the Existing contracts expire the socialisation levels under each scenario converge.

The socialisation figure decreases generally as the levels of new Capacity increase and the shortfall due to Existing Contracts lessens, reducing prices for new Capacity.

	0728C	0728C (EC Scenario 1)	0728C (EC Scenario 2)
01/10/2020	16.1%	10.5%	3.4%
01/10/2025	7.3%	7.2%	3.0%
01/10/2030	5.8%	5.8%	4.0%

Effect on Socialisation  
of Lapsing Existing Contracts



# Existing Contract Scenarios – 0728D

	0728D	0728D (EC Scenario 1)	0728D (EC Scenario 2)
Contribution: TS Standard Rate	£123,344,370.09	£143,778,494.87	£198,957,576.41
Contribution: TS Discounted Rate	£9,650,299.94	£7,606,887.46	£2,088,979.31
Contribution: Gen Non-TS	£1,686,333.20	£1,686,333.20	£1,686,333.20
Potential TS Socialisation	£86,852,699.45	£68,461,987.15	£18,800,813.76
TS Socialisation as % of TO MAR	9.2%	7.2%	2.0%
Gen Non-TS Socialisation	£26,559,747.88	£26,559,747.88	£26,559,747.88
Gen Non-TS Socialisation as % of SO MAR	12.5%	12.5%	12.5%
Total Socialisation as % of Total MAR	9.8%	8.2%	3.9%
Routes Considered	15	15	15
Max Effective Rate Discount	94.0%	94.0%	94.0%
Longest Route Considered	17.7	17.7	17.7

In year one, the combined TS and GNTS socialisation under 0728 is likely to be between £45.4m and £113.4m. Approximately 3.9% - 9.8% of Total MAR.

However, as Existing Contracts expire this will change under all scenarios until they converge.

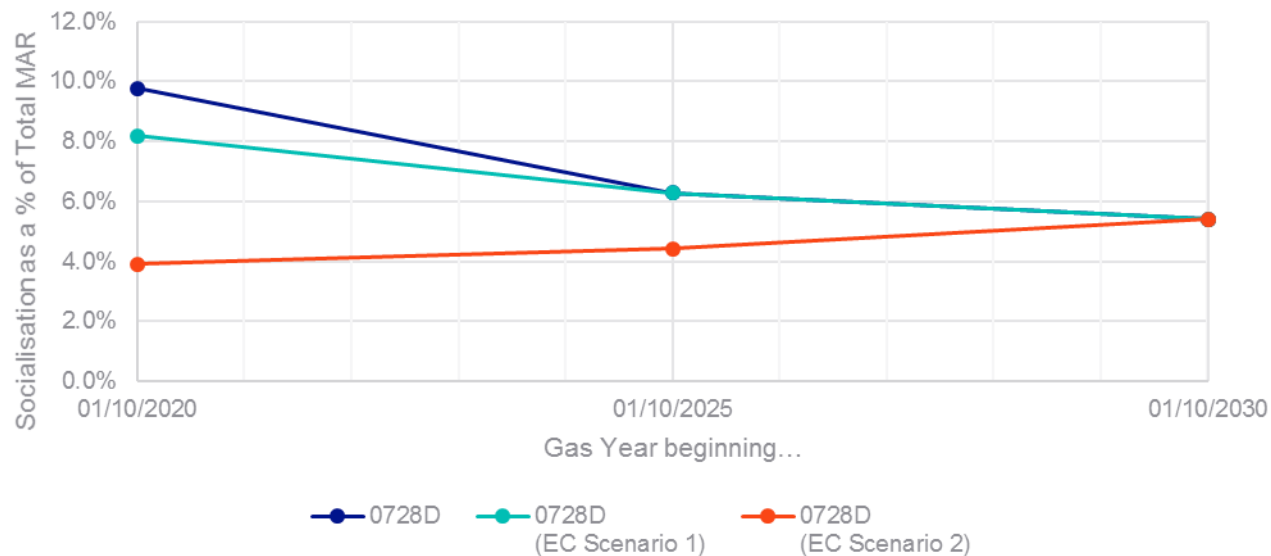
# Existing Contract Scenarios – 0728D

Repeating the analysis for future years shows that as the Existing contracts expire the socialisation levels under each scenario converge.

The socialisation figure decreases generally as the levels of new Capacity increase and the shortfall due to Existing Contracts lessens, reducing prices for new Capacity.

	0728D	0728D (EC Scenario 1)	0728D (EC Scenario 2)
01/10/2020	9.8%	8.2%	3.9%
01/10/2025	6.3%	6.3%	4.4%
01/10/2030	5.4%	5.4%	5.4%

Effect on Socialisation  
of Lapsing Existing Contracts



# Existing Contract Scenarios

Below, the headline figures for all 0728 alternatives, all scenarios, across three separate years, are presented to provide an idea of the potential scale of impact on socialisation due to implementation of any one of the proposals.

2020/21	0728	0728A	0728B	0728C	0728D
Mod Analysis	£83,460,808.36	£107,469,923.24	£90,451,944.48	£186,862,717.23	£113,412,447.33
	7.2%	9.3%	7.8%	16.1%	9.8%
Scenario 1	£66,578,523.96	£90,587,638.84	£72,951,527.97	£121,675,546.50	£95,021,735.03
	5.7%	7.8%	6.3%	10.5%	8.2%
Scenario 2	£18,066,578.52	£42,075,693.40	£19,579,934.46	£39,167,035.16	£45,360,561.64
	1.6%	3.6%	1.7%	3.4%	3.9%

2025/26	0728	0728A	0728B	0728C	0728D
Mod Analysis	£44,576,782.12	£76,663,730.04	£48,310,778.44	£95,389,215.47	£81,801,403.13
	3.4%	5.9%	3.7%	7.3%	6.3%
Scenario 1	£44,576,782.12	£76,663,730.04	£48,310,778.44	£94,491,976.29	£81,801,403.13
	3.4%	5.9%	3.7%	7.2%	6.3%
Scenario 2	£20,925,000.04	£53,011,947.97	£22,579,437.81	£39,302,998.20	£57,685,813.95
	1.6%	4.1%	1.7%	3.0%	4.4%

2030/31	0728	0728A	0728B	0728C	0728D
Mod Analysis	£38,458,766.92	£71,892,020.35	£41,680,284.65	£82,213,699.06	£76,910,290.13
	2.7%	5.0%	2.9%	5.8%	5.4%
Scenario 1	£38,458,766.92	£71,892,020.35	£41,680,284.65	£82,213,699.06	£76,910,290.13
	2.7%	5.0%	2.9%	5.8%	5.4%
Scenario 2	£38,458,766.92	£71,892,020.35	£41,680,284.65	£57,310,220.43	£76,910,290.13
	2.7%	5.0%	2.9%	4.0%	5.4%

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# 06: Relevant Documents

UNC 0728/A/B/C/D: 24 June 2020

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# UNC 0728 and related Documents

## GCD 12 documents:

<https://www.nationalgridgas.com/charging/gas-charging-discussion-gcd-papers>

## UNC Modification Proposal 0678 and Alternatives:

<https://www.gasgovernance.co.uk/0678>

## UNC Modification Proposal 0728 and Alternatives:

<https://www.gasgovernance.co.uk/0728>

## UNC Request 0670R:

<https://www.gasgovernance.co.uk/0670>

## EU Tariff Code (Regulation 2017/460):

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32017R0460>

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## 07: Q&A

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## **Q&A**

**Any Questions?**

**Please use WebEx chat**

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# 08: Contact Details

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# Contact National Grid

For any queries, comments, or more information please contact:

[Box.gsoconsultations@nationalgrid.com](mailto:Box.gsoconsultations@nationalgrid.com)

Or directly:

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# Appendix: Supporting Existing Contract Analysis

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# Existing Contract Scenarios – 0728 Future Years

2025/26	0728	0728 (EC Scenario 1)	0728 (EC Scenario 2)
Contribution: TS Standard Rate	£71,345,515.23	£71,345,515.23	£100,228,833.76
Contribution: TS Discounted Rate	£10,289,547.55	£10,289,547.55	£5,058,011.10
Contribution: Gen Non-TS	£40,164,780.97	£40,164,780.97	£40,164,780.97
Potential TS Socialisation	£44,576,782.12	£44,576,782.12	£20,925,000.04
TS Socialisation as % of TO MAR	4.3%	4.3%	2.0%
Gen Non-TS Socialisation	£0.00	£0.00	£0.00
Gen Non-TS Socialisation as % of SO MAR	0.0%	0.0%	0.0%
Total Socialisation as % of Total MAR	3.4%	3.4%	1.6%
Routes Considered	17	17	17
Max Effective Rate Discount	52.0%	52.0%	46.4%
Longest Route Considered	17.7	17.7	17.7

2030/31	0728	0728 (EC Scenario 1)	0728 (EC Scenario 2)
Contribution: TS Standard Rate	£61,553,580.37	£61,553,580.37	£61,553,580.37
Contribution: TS Discounted Rate	£8,877,341.34	£8,877,341.34	£8,877,341.34
Contribution: Gen Non-TS	£41,735,470.73	£41,735,470.73	£41,735,470.73
Potential TS Socialisation	£38,458,766.92	£38,458,766.92	£38,458,766.92
TS Socialisation as % of TO MAR	3.3%	3.3%	3.3%
Gen Non-TS Socialisation	£0.00	£0.00	£0.00
Gen Non-TS Socialisation as % of SO MAR	0.0%	0.0%	0.0%
Total Socialisation as % of Total MAR	2.7%	2.7%	2.7%
Routes Considered	17	17	17
Max Effective Rate Discount	47.8%	47.8%	43.0%
Longest Route Considered	17.7	17.7	17.7

# Existing Contract Scenarios – 0728A Future Years

2025/26	0728A	0728A (EC Scenario 1)	0728A (EC Scenario 2)
Contribution: TS Standard Rate	£71,345,515.23	£71,345,515.23	£100,228,833.76
Contribution: TS Discounted Rate	£10,289,547.55	£10,289,547.55	£5,058,011.10
Contribution: Gen Non-TS	£8,077,833.04	£8,077,833.04	£8,077,833.04
Potential TS Socialisation	£44,576,782.12	£44,576,782.12	£20,925,000.04
TS Socialisation as % of TO MAR	4.3%	4.3%	2.0%
Gen Non-TS Socialisation	£32,086,947.92	£32,086,947.92	£32,086,947.92
Gen Non-TS Socialisation as % of SO MAR	12.0%	12.0%	12.0%
Total Socialisation as % of Total MAR	5.9%	5.9%	4.1%
Routes Considered	17	17	17
Max Effective Rate Discount	85.7%	85.7%	79.9%
Longest Route Considered	17.7	17.7	17.7

2030/31	0728A	0728A (EC Scenario 1)	0728A (EC Scenario 2)
Contribution: TS Standard Rate	£61,553,580.37	£61,553,580.37	£61,553,580.37
Contribution: TS Discounted Rate	£8,877,341.34	£8,877,341.34	£8,877,341.34
Contribution: Gen Non-TS	£8,302,217.30	£8,302,217.30	£8,302,217.30
Potential TS Socialisation	£38,458,766.92	£38,458,766.92	£38,458,766.92
TS Socialisation as % of TO MAR	3.3%	3.3%	3.3%
Gen Non-TS Socialisation	£33,433,253.43	£33,433,253.43	£33,433,253.43
Gen Non-TS Socialisation as % of SO MAR	12.1%	12.1%	12.1%
Total Socialisation as % of Total MAR	5.0%	5.0%	5.0%
Routes Considered	17	17	17
Max Effective Rate Discount	85.4%	85.4%	80.1%
Longest Route Considered	17.7	17.7	17.7

# Existing Contract Scenarios – 0728B Future Years

2025/26	0728B	0728B (EC Scenario 1)	0728B (EC Scenario 2)
Contribution: TS Standard Rate	£87,854,275.06	£87,854,275.06	£127,726,032.15
Contribution: TS Discounted Rate	£24,244,771.98	£24,244,771.98	£10,104,355.53
Contribution: Gen Non-TS	£53,114,137.73	£53,114,137.73	£53,114,137.73
Potential TS Socialisation	£48,310,778.44	£48,310,778.44	£22,579,437.81
TS Socialisation as % of TO MAR	4.7%	4.7%	2.2%
Gen Non-TS Socialisation	£0.00	£0.00	£0.00
Gen Non-TS Socialisation as % of SO MAR	0.0%	0.0%	0.0%
Total Socialisation as % of Total MAR	3.7%	3.7%	1.7%
Routes Considered	22	22	22
Max Effective Rate Discount	52.0%	52.0%	46.4%
Longest Route Considered	17.7	17.7	17.7

2030/31	0728B	0728B (EC Scenario 1)	0728B (EC Scenario 2)
Contribution: TS Standard Rate	£75,796,567.78	£75,796,567.78	£75,796,567.78
Contribution: TS Discounted Rate	£20,917,257.60	£20,917,257.60	£20,917,257.60
Contribution: Gen Non-TS	£55,191,226.92	£55,191,226.92	£55,191,226.92
Potential TS Socialisation	£41,680,284.65	£41,680,284.65	£41,680,284.65
TS Socialisation as % of TO MAR	3.6%	3.6%	3.6%
Gen Non-TS Socialisation	£0.00	£0.00	£0.00
Gen Non-TS Socialisation as % of SO MAR	0.0%	0.0%	0.0%
Total Socialisation as % of Total MAR	2.9%	2.9%	2.9%
Routes Considered	22	22	22
Max Effective Rate Discount	47.8%	47.8%	43.0%
Longest Route Considered	17.7	17.7	17.7



# Existing Contract Scenarios – 0728C Future Years

2025/26	0728C	0728C (EC Scenario 1)	0728C (EC Scenario 2)
Contribution: TS Standard Rate	£0.00	£964,176.38	£74,779,295.99
Contribution: TS Discounted Rate	£31,618,264.10	£31,551,326.90	£12,925,185.38
Contribution: Gen Non-TS	£40,164,780.97	£40,164,780.97	£40,164,780.97
Potential TS Socialisation	£95,389,215.47	£94,491,976.29	£39,302,998.20
TS Socialisation as % of TO MAR	9.2%	9.1%	3.8%
Gen Non-TS Socialisation	£0.00	£0.00	£0.00
Gen Non-TS Socialisation as % of SO MAR	0.0%	0.0%	0.0%
Total Socialisation as % of Total MAR	7.3%	7.2%	3.0%
Routes Considered	19	19	19
Max Effective Rate Discount	90.0%	90.0%	50.0%
Longest Route Considered	17.7	17.7	17.7

2030/31	0728C	0728C (EC Scenario 1)	0728C (EC Scenario 2)
Contribution: TS Standard Rate	£0.00	£0.00	£35,424,416.25
Contribution: TS Discounted Rate	£27,362,426.03	£27,362,426.03	£16,841,488.41
Contribution: Gen Non-TS	£41,735,470.73	£41,735,470.73	£41,735,470.73
Potential TS Socialisation	£82,213,699.06	£82,213,699.06	£57,310,220.43
TS Socialisation as % of TO MAR	7.2%	7.2%	5.0%
Gen Non-TS Socialisation	£0.00	£0.00	£0.00
Gen Non-TS Socialisation as % of SO MAR	0.0%	0.0%	0.0%
Total Socialisation as % of Total MAR	5.8%	5.8%	4.0%
Routes Considered	19	19	19
Max Effective Rate Discount	90.0%	90.0%	46.9%
Longest Route Considered	17.7	17.7	17.7

# Existing Contract Scenarios – 0728D Future Years

2025/26	0728D	0728D (EC Scenario 1)	0728D (EC Scenario 2)
Contribution: TS Standard Rate	£63,786,440.78	£63,786,440.78	£90,581,539.88
Contribution: TS Discounted Rate	£5,154,267.33	£5,154,267.33	£2,474,757.42
Contribution: Gen Non-TS	£2,318,708.15	£2,318,708.15	£2,318,708.15
Potential TS Socialisation	£46,388,405.96	£46,388,405.96	£22,272,816.77
TS Socialisation as % of TO MAR	4.5%	4.5%	2.1%
Gen Non-TS Socialisation	£35,412,997.17	£35,412,997.17	£35,412,997.17
Gen Non-TS Socialisation as % of SO MAR	13.2%	13.2%	13.2%
Total Socialisation as % of Total MAR	6.3%	6.3%	4.4%
Routes Considered	15	15	15
Max Effective Rate Discount	93.9%	93.9%	93.9%
Longest Route Considered	17.7	17.7	17.7

2030/31	0728D	0728D (EC Scenario 1)	0728D (EC Scenario 2)
Contribution: TS Standard Rate	£55,031,963.77	£55,031,963.77	£55,031,963.77
Contribution: TS Discounted Rate	£4,446,861.27	£4,446,861.27	£4,446,861.27
Contribution: Gen Non-TS	£2,318,708.15	£2,318,708.15	£2,318,708.15
Potential TS Socialisation	£40,021,751.40	£40,021,751.40	£40,021,751.40
TS Socialisation as % of TO MAR	3.5%	3.5%	3.5%
Gen Non-TS Socialisation	£36,888,538.72	£36,888,538.72	£36,888,538.72
Gen Non-TS Socialisation as % of SO MAR	13.3%	13.3%	13.3%
Total Socialisation as % of Total MAR	5.4%	5.4%	5.4%
Routes Considered	15	15	15
Max Effective Rate Discount	94.1%	94.1%	94.1%
Longest Route Considered	17.7	17.7	17.7

# Existing Contract Scenarios – 0728/A/B/C/D Comparison

Year 2020/21	0728	0728A	0728B	0728C	0728D
<b>TO MAR 2020/21</b>	£948,832,824.00	£948,832,824.00	£948,832,824.00	£948,832,824.00	£948,832,824.00
<b>Potential TS Socialisation</b>	£83,529,581.00	£83,529,581.00	£90,241,049.23	£181,129,324.23	£86,852,699.45
<b>TS Socialisation as % of TO MAR</b>	8.8%	8.8%	9.5%	19.1%	9.2%
<b>SO MAR 2020/21</b>	£212,456,147.98	£212,456,147.98	£212,456,147.98	£212,456,147.98	£212,456,147.98
<b>Gen Non-TS Socialisation</b>	£0.00	£24,009,114.88	£0.00	£0.00	£26,559,747.88
<b>Gen Non-TS Socialisation as % of SO MAR</b>	0.0%	11.3%	0.0%	0.0%	12.5%
<b>Total MAR 2020/21</b>	£1,161,288,971.98	£1,161,288,971.98	£1,161,288,971.98	£1,161,288,971.98	£1,161,288,971.98
<b>Total Socialisation</b>	£83,529,581.00	£107,538,695.88	£90,241,049.23	£181,129,324.23	£113,412,447.33
<b>Total Socialisation as % of Total MAR</b>	7.2%	9.3%	7.8%	15.6%	9.8%
<b>EC Scenario 1</b>					
<b>TO MAR 2020/21</b>	£948,832,824.00	£948,832,824.00	£948,832,824.00	£948,832,824.00	£948,832,824.00
<b>Potential TS Socialisation</b>	£66,578,523.96	£66,578,523.96	£72,951,527.97	£121,675,546.50	£68,461,987.15
<b>TS Socialisation as % of TO MAR</b>	7.0%	7.0%	7.7%	12.8%	7.2%
<b>SO MAR 2020/21</b>	£212,456,147.98	£212,456,147.98	£212,456,147.98	£212,456,147.98	£212,456,147.98
<b>Gen Non-TS Socialisation</b>	£0.00	£24,009,114.88	£0.00	£0.00	£26,559,747.88
<b>Gen Non-TS Socialisation as % of SO MAR</b>	0.0%	11.3%	0.0%	0.0%	12.5%
<b>Total MAR 2020/21</b>	£1,161,288,971.98	£1,161,288,971.98	£1,161,288,971.98	£1,161,288,971.98	£1,161,288,971.98
<b>Total Socialisation</b>	£66,578,523.96	£90,587,638.84	£72,951,527.97	£121,675,546.50	£95,021,735.03
<b>Total Socialisation as % of Total MAR</b>	5.7%	7.8%	6.3%	10.5%	8.2%
<b>EC Scenario 2</b>					
<b>TO MAR 2020/21</b>	£948,832,824.00	£948,832,824.00	£948,832,824.00	£948,832,824.00	£948,832,824.00
<b>Potential TS Socialisation</b>	£18,066,578.52	£18,066,578.52	£19,579,934.46	£39,167,035.16	£18,800,813.76
<b>TS Socialisation as % of TO MAR</b>	1.9%	1.9%	2.1%	4.1%	2.0%
<b>SO MAR 2020/21</b>	£212,456,147.98	£212,456,147.98	£212,456,147.98	£212,456,147.98	£212,456,147.98
<b>Gen Non-TS Socialisation</b>	£0.00	£24,009,114.88	£0.00	£0.00	£26,559,747.88
<b>Gen Non-TS Socialisation as % of SO MAR</b>	0.0%	11.3%	0.0%	0.0%	12.5%
<b>Total MAR 2020/21</b>	£1,161,288,971.98	£1,161,288,971.98	£1,161,288,971.98	£1,161,288,971.98	£1,161,288,971.98
<b>Total Socialisation</b>	£18,066,578.52	£42,075,693.40	£19,579,934.46	£39,167,035.16	£45,360,561.64
<b>Total Socialisation as % of Total MAR</b>	1.6%	3.6%	1.7%	3.4%	3.9%

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