



2023/24 Charging Statement

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60-day notice of 2023/24 Transportation charges

Introduction

This publication sets out the Local Distribution Zone (LDZ) transportation charges which apply from 1 April 2023, for the use of the Northern Gas Networks Limited (NGN) Distribution Network, as required by Standard Special Condition A4 of the Gas Transporters Licence. This document does not override or vary any of the statutory, Licence or Uniform Network Code obligations.

For more information on the charges contained within this document, please contact the NGN Pricing Manager via e-mail at jschofield@northerngas.co.uk or on 07711 774258.

1.1 Uniform Network Code

The Uniform Network Code (UNC) is supported by an integrated set of computer systems called UK Link. The charges and formulae in this Notice will be used in the calculation of charges within UK Link, which are definitive for billing purposes.

There are many areas of the UNC that impact upon the cost to shippers of using the transportation network. These are imbalance charges, scheduling charges, capacity over-runs and ratchet charges, top-up neutrality charges and contractual liability. Reference should be made to the UNC, as modified from time-to-time, for details of such charges and liabilities.

The methodologies underlying the charges are stated in the UNC Transportation Principal Document (TPD) Section Y Part B and may be subject to alteration under the governance of UNC Modification Rules.

All UNC documents and Modifications can be found on the Joint Office of Gas Transporters website www.gasgovernance.co.uk

1.2 Units

- Commodity charges are billed in pence per kilowatt hour
- Capacity charges are billed in pence per peak day kilowatt hour per day
- Fixed charges are billed in pence per day

1.3 Invoicing

Xoserve produce and issue the invoices that are derived from the transportation charges shown within this notice. To clarify the link between charging and invoicing, charge codes and invoice names are included in the tables. For more information on invoicing, please contact Xoserve directly at Css.Billing@xoserve.com.

1.4 Summary of the Transportation Charges

The maximum amount of revenue that can be earned from the transportation of gas is derived from the price control formula set by Ofgem, the industry regulator. The charges outlined in this document are based on this capped amount.

The LDZ price change for 2023/24 is an increase of 20.4%. This is based on a 12% increase in allowed revenue, excluding revenue associated with the Supplier of Last Resort (SOLR) process. Within this increase is a 7.4% forecast impact of capacity related changes, and 1.1% of prior year movements.

The Exit Capacity price change for 2023/24 is a reduction of 28.6%. This is based on a 33.3% reduction in allowed revenue, combined with +7.4% forecast impact of capacity related changes, and -2.6% of prior year movements.

1.5 Year on Year Movements in Transportation Revenue

The table below illustrates the annual movement in NGN's revenue allowance. These movements are broken down into distribution network (LDZ) specific and exit capacity related allowance increases. The impact of the Supplier of Last Resort (SOLR) process is also split out to provide transparency.

- NGN's total revenue allowance has decreased by £35.1m year on year:
 - LDZ specific charges, which relate to costs associated with transporting gas through the distribution network, have increased by £53.7m.
 - This has been offset by a reduction in Supplier of Last Resort (SOLR) claims of £69.9m, and a reduction in Exit Capacity Charges of £18.8m.

The allowances outlined below are based on the Price Control Financial Model (PCFM) published by Ofgem on 12 January 2023. If Northern Gas Networks collect more or less than their agreed revenue allowance, this over or under collection is adjusted in the following regulatory year's revenue.

YOY Movements (Nominal)	LDZ		Exit		SOLR		Total
	£m	%	£m	%	£m	%	£m
22/23 Revenue	448.3		56.5		95.9		600.7
Inflation	40.3	9%					40.3
Corporation tax	23.6	5%					23.6
GD1 Pension Deficit	11.7	3%					11.7
Cost of Equity	11.1	2%					11.1
Cost of Debt	1.6	0%					1.6
Other changes	(0.6)	(0%)	0.3	1%			(0.3)
Shrinkage	(2.4)	(1%)					(2.4)
Real price effects	(2.7)	(1%)					(2.7)
NTS Exit rates			(6.1)	(11%)			(6.1)
Business Rates	(11.2)	(2%)					(11.2)
GD1 Exit Legacy		0%	(13.1)	(23%)			(13.1)
Totex changes	(17.6)	(4%)					(17.6)
Reduction in claims					(69.9)	(73%)	(69.9)
23/24 Revenue	502.0	12.0%	37.7	(33%)	26.0	(73%)	565.6
YOY £ movement	53.7		(18.8)		(69.9)		(35.1)

Price Change Breakdown

Year on year AR % movement	12.0%	(33.3%)
Prior year under/(over) recovery	1.1%	(2.6%)
23/24 forecast SOQ impact	7.4%	7.4%
Overall Price Change	20.4%	(28.6%)

Most significant year on year changes:

Historical Inflation and Forecast Growth Assumptions: +£40.3m

Distribution networks calculate their annual revenue allowance entitlement in a standardised price base. In GD2 this is 2018/19 prices. This approach allows distribution networks and the regulator to distinguish between annual changes in revenue linked to carrying out the transportation service, and the level of inflation.

NGN's charges are published on a revenue allowance which has been uplifted to a nominal price basis. Historical actual CPIH published until June 2022 is used to convert from a 2018/19 price base to nominal. An inflationary forecast published by the Office for Budget Responsibility (OBR) is used for the months following June 2022, all of which are updated by Ofgem as part of the Annual Iteration Process.

The current forecast inflation rate for 22/23 is 8.76%, compared to last year's forecast for the same period of +3.6%. 23/24 forecast growth rate is 5.2%.

Corporation Tax Rates: +£23.6m

UK corporation tax has increased from 19% to 25%, which drives the increase in the revenue tax allowance.

Pension Deficit +£11.7m

NGN allowances from 23/24 to 25/26 include revenue allowances to cover additional costs paid into the scheme during RIIO-GD1.

Cost of Equity: +£11.1m

Ofgem has updated all networks' cost of equity allowance, to account for the latest view of yields on UK government securities. This is calculated by taking a snapshot of performance in October each year. October 2022 saw extreme volatility due to the government's mini budget/subsequent reversal which has increased rates.

Shrinkage: -£2.4m

22/23 allowances of £32.5m were very high as a 'catch up' of £11.6m relating to 21/22 was included. Revenue allowances for shrinkage year on year have reduced by £2.4m to £30.1m.

Prices and forecasts remain volatile. The average price per therm assumed in this update is £2.19 and £3.03 in the regulatory years 2022/23 and 2023/24 respectively.

Real Price Effects: -£2.7m

Ofgem have updated the indices used to account for real price effects. These are applied to the expenditure allowances on certain categories of expenditure, which experience inflationary pressures which aren't aligned to CPIH.

Business Rates: -£11.2m

The expected revaluation exercise has been completed, resulting in a significant reduction in business rates effective from 1 April 2023. The rateable value of NGN's asset base has dropped by £15.8m, which combined with a freeze in the Uniform Business Rates (UBR), at the 2021/22 rate of 51.2p, has driven the overall reduction.

TOTEX Allowances: -£17.6m

This relates to 2021/22 Totex outperformance when comparing actual results against the allowance. In 2021/22 NGN outperformed allowances by 15% (£41m). 51% of this is returned to end consumers through the fast/slow money mechanism within revenue allowances across subsequent regulatory years £17.6m of which will manifest in 23/24.

Exit Capacity Charges: -£18.8m

To safeguard gas supply, Gas Distribution Networks are required to reserve pipe capacity on the transmission network. National Grid charge Northern Gas Networks an exit capacity rate for the right to take gas off the transmission system at each offtake point.

Expenditure associated with the capacity booking process is treated as a pass-through area within NGN's regulatory contract. Consequently, NGN receives an allowance which matches the expenditure it incurs.

- In 2023/24 there are no true ups relating to RIIO-GD1; as such there is a large reduction year on year as 2022/23 included c. £13.1m relating to costs arising from the introduction of the postage stamp methodology in October 2020.
- A further £6.1m reduction is due to the using the latest NTS published rates.

Supplier of Last Resort Claims: -£69.9m

During the 2021/22 regulatory year, 24 gas suppliers, with their customers on NGN's network, undertook the insolvency process, due to the surge in wholesale gas prices seen in global markets. To ensure that the former customers of those insolvent suppliers continued to receive natural gas, Ofgem appointed 8 suppliers to act as the Supplier of Last Resort.

The Supplier of Last Resort process allowed these 8 suppliers to submit a claim to Ofgem to recover the costs they incurred from carrying out these statutory duties. Ofgem have approved final claims totalling £26m for 2023/24 regulatory year, which is a reduction on the £95.9m allowed in 2022/23.

Revenue under this charge code will be collected based upon the UNC0797U and UNC0809U methodology on a capacity basis, in line with other capacity based GDN charges

Other Factors Impacting 2023/24 Unit Rates

New Load Factors

Load factors are the relationship between Annual Quantities (AQ) and peak day demand (SOQ). The method of collecting income is directly linked to peak day demand. Consequently, it is a critical measure in the accuracy of any price change needed.

When new load factors are implemented every October, any non-daily metered supply point will have a new Supply Offtake Quantity (SOQ) calculated based on the latest load factor available.

December 2022 Capacity Snapshot

Each December Xoserve provides a snapshot of capacity data which will be used in the following regulatory year on meter points that use a fixed charging capacity basis (largely domestic). This snapshot has shown a significant drop in domestic Annual Quantities and peak day requirements. We have assumed a 7.4% reduction in peak day capacity levels to calculate the price points for the regulatory year 2023/24, which ultimately increases the price change needed to collect the directed Allowed Revenue figure.

1.6 Theft of gas

The licencing regime places incentives on transporters, shippers, and suppliers to act in respect of suspected theft of gas. Costs related to the Reasonable Endeavours Scheme operated by transporters are recovered through transportation charges with the transporter remaining neutral to these costs.

1.7 Capacity Charging Assumptions

Our price change includes an assumption that capacity levels will reduce by **-7.4%** from April 2023; based on data provided by Xoserve in December 2022. As capacity is forecast to reduce by -7.4%, the price change includes a compensating increase of **+7.4%** to ensure NGN collects the required Allowed Revenue figure for 2023/24.

Transportation Charges

Distribution revenue recovery is split between LDZ system charges and customer charges. LDZ system charges are made up of capacity and commodity charges. Customer charges are capacity based, although certain supply points receive a fixed charge in addition to a variable capacity-based charge. All transportation is provided on a firm basis only.

2.1 LDZ System Charges

The standard LDZ system charges comprise capacity and commodity charges, with the same rates and functions for directly connected supply points and connected system exit points (CSEPs).

Where LDZ charges are based on functions, these functions use Supply Point Offtake Quantity (SOQ) in the determination of the charges. At Daily Metered (DM) supply points the SOQ is the registered supply point capacity. For Non-Daily Metered (NDM) supply points, the SOQ is calculated using the supply point End User Category (EUC) and the appropriate load factor.

2.1.1 Directly Connected Supply Points

The unit charges and charging functions used to calculate system charges to directly connected supply points are as follows:

Charge type	LDZ Capacity	LDZ Commodity
Charge code	ZCA	ZCO
Unit rate	Pence per peak day kWh per day	Pence per kWh
Up to 73,200 kWh p.a.	0.2549	0.0402
73,200 to 732,000 kWh p.a.	0.2190	0.0344
732,000 kWh and above p.a.	$2.5701 \times \text{SOQ}^{-0.2834}$	$0.4419 \times \text{SOQ}^{-0.2940}$
Subject to a minimum rate of	0.0065	0.0012
Minimum reached at SOQ of	1,458,329,152	535,028,257

2.1.2 Connected System Exit Points

In the calculation of LDZ charges payable, the unit rate commodity and capacity charges are based on the supply point capacity equal to the CSEP peak day load for the completed development irrespective of the actual stage of development. The SOQ used is therefore the estimated SOQ for the completed development as provided in the appropriate Network Exit Agreement (NExA). For any CSEP, each shipper will pay identical LDZ unit charges regardless of the proportion of gas shipped. Reference needs to be made to the relevant NExA or CSEP ancillary agreement to determine the completed supply point capacity. The unit charges and charging functions used to calculate charges to CSEPs are as follows:

Charge type	LDZ Capacity	LDZ Commodity
Charge code	891	893
Unit rate	Pence per peak day kWh per day	Pence per kWh
Up to 73,200 kWh p.a.	0.2549	0.0402
73,200 to 732,000 kWh p.a.	0.2190	0.0344
732,000 kWh and above p.a.	$2.5701 \times \text{SOQ}^{-0.2834}$	$0.4419 \times \text{SOQ}^{-0.2940}$
Subject to a minimum rate of	0.0065	0.0012
Minimum reached at SOQ of	1,458,329,152	535,028,257

2.1.3 Optional LDZ Charge

The optional LDZ tariff is available, as a single charge, as an alternative to the standard LDZ system charges. The rationale for this tariff is that, for large LDZ loads located close to the NTS, the standard tariff can appear to give perverse economic incentives for the construction of new pipelines when LDZ connections are already available. This tariff may be attractive to large loads located close to the NTS, but it is strongly advisable to contact the NGN Pricing Manager on 0113 397 5354, 07784 218966 or 07711 774258 prior to opting for this tariff.

Invoice	Charge Code
ADU	881

Pence per peak day kWh per day
$902 \times [(SOQ)^{-0.834}] \times D + 772 \times (SOQ)^{-0.717}$

Where SOQ is the registered supply point capacity and D is the direct distance, in km, from the site boundary to the nearest point on the NTS.

2.2 LDZ Customer Charges

For supply points with an Annual Quantity (AQ) of less than 73,200 kWh per annum, the customer charge is a capacity charge.

For supply points with an AQ of between 73,200 and 732,000 kWh per annum, the customer charge is made up of a fixed charge which depends on the frequency of meter reading, plus a capacity charge based on the registered SOQ.

For supply points with an AQ of greater than 732,000 kWh per annum, the customer charge is based on a function related to the registered SOQ.

2.2.1 Directly Connected Supply Points

The unit charges and charging functions used to calculate customer charges to directly connected supply points are as follows:

Charge type	LDZ Capacity
Charge code	CCA
Unit rate	Pence per peak day kWh per day
Up to 73,200 kWh p.a.	0.1361
73,200 to 732,000 kWh p.a.	0.0048
732,000 kWh and above p.a.	$0.1039 \times SOQ^{-0.2100}$

In addition to the above, the following fixed charge applies to supply points with an AQ of between 73,200 and 732,000 kWh:

Charge type	LDZ Capacity
Charge code	CFI
Unit rate	Pence per day
Non-monthly read supply points	42.7575
Monthly read supply points	45.5268

2.3 Exit Capacity NTS Charges (ECN)

The LDZ ECN charge is based on system capacity. It is applied to each exit zone on an administered peak day basis, a breakdown of the calculation methodology is outlined in the Appendix. The exit zone for a DN supply point is determined by its postcode.

Please note whilst Mod678A has been implemented which results in a consistent unit rate charged from NTS to networks, unit rates below include the effect of the 2-year lag true up mechanism from RIIO-GD1. NGN would also incur different cost levels per exit zone dependant on the level of capacity booked.

Charge type	LDZ Exit Capacity
Charge code - directly connected supply points/CSEPs	ECN/C04
Unit rate	Pence per peak day kWh per day
NE1	0.0207
NE2	0.0234
NE3	0.0234
NO1	0.0207
NO2	0.0192

2.4 Supplier of Last Resort charge

The Supplier of Last Resort charge is based on system capacity. In 2023/24, this charge will apply to all domestic directly connected and Independent Gas Transporter domestic customers.

Charge type	Supplier of last resort
Charge code	INR/LRD
Unit rate	Pence per peak day kWh
Domestic sites (Direct Connects and CSEP's customers)	0.0245

2.5 DN Entry Charges

The LDZ System Entry Commodity rates reflect the operating costs associated with the entry of gas into the distribution network. It also reflects the benefits from not using the distribution network from point of entry to the offtake. The rate associated with the LDZ system Entry Commodity Charge is calculated on a site-by-site basis.

The table below shows sites that are currently expected to be live in during 2023/24, for sites that become live during 2023/24, unit rates will be calculated accordingly and an Xoserve notification made so the shipper gets charged correctly. Please contact the NGN pricing manager on 07784 218966 or 07711 774258 if rates are needed prior to the go live date.

Xoserve Site name	Charge Type		LDZ System Entry Commodity	
	Charge Code		LEC	
	Site Name	Date Connected	Pence per kWh	Unit Rate: Charge or Credit
HOWDOS	Howdon	10/12/2014	(0.0414)	Credit
FOOTOS	Teeside	19/09/2015	0.0363	Charge
LEEMOS	Leeming	25/06/2015	0.0146	Charge
ASPAOS	Cumbria	25/05/2016	(0.0098)	Credit
RIDGOS	Ridge Road Sherburn in Elmet	19/03/2016	0.0414	Charge
SHEROS	Agri Sherburn in Elmet	17/03/2016	(0.0288)	Credit
GRAVOS	Gravel Pit	31/03/2016	0.0193	Charge
NEWTOS	Emerald Biogas	23/03/2016	(0.0648)	Credit
BURTOS	Burton Agnes	22/03/2016	0.0484	Charge
LANEOS	Lanes Farm	14/10/2019	(0.0540)	Credit
SPALOS	Spaldington	23/10/2019	0.0265	Charge
BRANOS	Bran Sands	19/12/2019	(0.0558)	Credit
WARDOS	Wardley	23/12/2019	0.0242	Charge
PARKOS	Park Farm	18/12/2019	(0.0252)	Credit
PLAXOS	Plaxton Bridge	27/01/2020	0.1361	Charge
HEDLOS	High Hedley	29/01/2020	(0.0054)	Credit
MILLOS	Mill Nurseries	13/12/2016	n/a	n/a
CRAMOS	Cramlington	30/03/2022	(0.0269)	Credit
DRIFIOS	Driffield	04/05/2022	(0.0451)	Credit

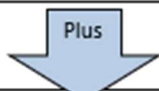


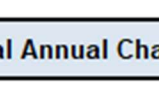
* No flow expected in 23/24

2.6 Charging examples

Below are several examples of various annual charges for different types of supply point.

Example A

A shipper has a daily metered customer in the NE1 Exit Zone with an annual consumption (AQ) of 20,000,000 kWh and a registered supply point capacity (SOQ), booked directly by the shipper, of 100,000 kWh per day.

Process	Calculations Used
<p>LDZ Capacity Invoice: LDZ Capacity (ZCA) See: Section 2.1.1 Basis: p / peak day kWh / day</p>	<p>Volume: 366 days x 100,000 (SOQ) = 36,600,000 Unit Rate 2.5701 x 100,000 (SOQ) ^{-0.2834} = 0.0984 p / pdkWh / day Annual Charge: £36,014.40</p>
<p>Plus</p> 	
<p>LDZ Commodity Invoice: Commodity (ZCO) See: Section 2.1.1 Basis: p / kWh</p>	<p>Volume: 20,000,000 (AQ) Unit Rate 0.4419 x 100,000 (SOQ) ^{-0.2940} = 0.0150 p / kWh Annual Charge: £3,000.00</p>
<p>Plus</p> 	
<p>Customer (Capacity) Invoice: LDZ Capacity (CCA) See: Section 2.2.1 Basis: p / peak day kWh / day</p>	<p>Volume: 366 days x 100,000 (SOQ) = 36,600,000 Unit Rate 0.1039 x 100,000 (SOQ) ^{-0.2100} = 0.0093 p / pdkWh / day Annual Charge: £3,403.80</p>
<p>Plus</p> 	
<p>LDZ Exit (Capacity) Invoice: Exit Capacity (ECN) See: Section 2.3 Basis: p / peak day kWh / day</p>	<p>Volume: 366 days x 100,000 (SOQ) = 36,600,000 Unit Rate 0.0207 p / pdkWh / day Annual Charge: £7,576.20</p>
<p>Plus</p> 	
<p>Total Annual Charge</p>	<p>Total annual charge = £49,994.40</p>

Example B(i) - Non prepayment domestic customer with average energy usage

A shipper has a non prepayment domestic customer and the load has an AQ of 14,000 kWh per annum. Using the appropriate small NDM supply points load factors, it can be seen that the load factor for such a site in the NE1 Exit Zone is 33.0%. The peak daily load (SOQ) is therefore $14,000 \div (366 \times 0.330) = 116$ kWh.

Process	Calculations Used
LDZ Capacity Invoice: LDZ Capacity (ZCA) See: Section 2.1.1 Basis: p / peak day kWh / day	Volume: 366 days x 116 (SOQ) = 42,456 Unit Rate: 0.2549 p / pdkwh / day Annual Charge: £108.22
Plus	
LDZ Commodity Invoice: Commodity (ZCO) See: Section 2.2.1 Basis: p / kWh	Volume: 14,000 (AQ) Unit Rate: 0.0402 p / Kwh Annual Charge: £5.63
Plus	
Customer (Capacity) Invoice: LDZ Capacity (CCA) See: Section 2.2.1 Basis: p / peak day kWh / day	Volume: 366 days x 116 (SOQ) = 42,456 Unit Rate: 0.1361 p / pdkwh / day Annual Charge: £57.78
Plus	
LDZ Specific Annual charge	LDZ annual charge = £171.63
Plus	
LDZ Exit (Capacity) Invoice: Exit Capacity (ECN) See: Section 2.3 Basis: p / peak day kWh / day	Volume: 366 days x 116 (SOQ) = 42,456 Unit Rate: 0.0207 p / pdkwh / day Annual Charge: £8.79
Plus	
Supplier of Last Resort charge (Capacity) Invoice: INR/LRD See: Section 2.4 Basis: p / peak day kWh / day	Volume: 366 days x 116 (SOQ) = 42,456 Unit Rate: 0.0245 p / pdkwh / day Annual Charge: £10.40
Plus	
Total Annual Charge	Total annual charge = £190.82

Example B(ii) - Non prepayment domestic customer with high energy usage

A shipper has a non prepayment domestic customer and the load has an AQ of 20,000 kWh per annum. Using the appropriate small NDM supply points load factors, it can be seen that the load factor for such a site in the NE1 Exit Zone is 33.0%. The peak daily load (SOQ) is therefore $20,000 \div (366 \times 0.330) = 166$ kWh.

Process	Calculations Used
LDZ Capacity Invoice: LDZ Capacity (ZCA) See: Section 2.1.1 Basis: p / peak day kWh / day	Volume: 366 days x 166 (SOQ) = 60,756 Unit Rate: 0.2549 p / pdkwh / day Annual Charge: £154.87
↓ Plu ↓	
LDZ Commodity Invoice: Commodity (ZCO) See: Section 2.2.1 Basis: p / kWh	Volume: 20,000 (AQ) Unit Rate: 0.0402 p / kWh Annual Charge: £8.04
↓ Plu ↓	
Customer (Capacity) Invoice: LDZ Capacity (CCA) See: Section 2.2.1 Basis: p / peak day kWh / day	Volume: 366 days x 166 (SOQ) = 60,756 Unit Rate: 0.1361 p / pdkwh / day Annual Charge: £82.69
↓ Plu ↓	
LDZ Specific Annual charge	LDZ annual charge = £245.60
↓ Plu ↓	
LDZ Exit (Capacity) Invoice: Exit Capacity (ECN) See: Section 2.3 Basis: p / peak day kWh / day	Volume: 366 days x 166 (SOQ) = 60,756 Unit Rate: 0.0207 p / pdkwh / day Annual Charge: £12.58
↓ Plu ↓	
Supplier of Last Resort charge (Capacity) Invoice: INR/LRD See: Section 2.4 Basis: p / peak day kWh / day	Volume: 366 days x 166 (SOQ) = 60,756 Unit Rate: 0.0245 p / pdkwh / day Annual Charge: £14.89
↓ Plu ↓	
Total Annual Charge	Total annual charge = £273.07

Example C

Suppose that instead of supplying just one non prepayment domestic customer (as in Example B) the shipper actually supplies a connected system in the NE1 Exit Zone presently comprising 100 domestic customers and the completed connected system will comprise 150 domestic premises. Suppose that each of these premises has the same AQ of 20,000 kWh per annum.

	AQ (no of premises x AQ per premise)	SOQ (AQ / (366 x load factor))
Prevailing	100 houses x 20,000 (AQ) = 2,000,000 kWh	2,000,000 ÷ (366 × 0.33) = 16,559 kWh
Maximum	150 houses x 20,000 (AQ) = 3,000,000 kWh	3,000,000 ÷ (366 × 0.33) = 24,839 kWh

Note that the prevailing annual and peak day loads of the connected system in effect would change over the year however, for simplicity, these have been assumed as constant in this example.

Process	Calculations Used
<p>LDZ Capacity Invoice: ADC (891) See: Section 2.1.2 Basis: p / peak day kWh / day</p> <p style="text-align: center;">Plus</p>	<p>Volume: 366 days x 16,559 (pre SOQ) = 6,060,594 Unit Rate: 2.5701 x 24,839 (max SOQ) ^-0.2834 = 0.1460 p / pdkWh / day Annual Charge: £8,848.47</p>
<p>LDZ Commodity Invoice: ADC (893) See: Section 2.1.2 Basis: p / kWh</p> <p style="text-align: center;">Plus</p>	<p>Volume: 2,000,000 (pre AQ) Unit Rate: 0.4419 x 24,839 (max SOQ) ^-0.294 = 0.0226 p / kWh Annual Charge: £452.00</p>
<p>LDZ Exit (Capacity) Invoice: Exit Capacity (ECN) See: Section 2.3 Basis: p / peak day kWh / day</p>	<p>Volume: 366 days x 16,559 (SOQ) = 6,060,594 Unit Rate: 0.0207 p / pdkWh / day Annual Charge: £1,254.54</p>
<p>Total Annual Charge</p>	<p>Total annual charge = £10,555.01</p>

Appendix

End User Categories

Estimation of peak daily load for NDM supply points.

For NDM supply points, the peak daily load is estimated using a set of End User Categories (EUC). Each NDM supply point is allocated to an EUC. In each LDZ each EUC has an associated load factor. A full list of Winter Annual Ratio (WAR) bands and EUC load factors can be found below and on the Xoserve SharePoint site. The examples that follow use the data from the 23/24 tables.

These EUCs depend upon the annual quantity (AQ) of the supply point and, in the case of monthly read sites, the ratio of winter to annual consumption where available.

Monthly read sites

It is mandatory for supply points with an annual consumption greater than 293 MWh to be monthly read, however, at the shipper's request, sites below this consumption may also be classified as monthly read.

For monthly read sites where the relevant meter reading history is available, the WAR ratio is the consumption from December to March divided by the annual quantity. If the required meter reading information is not available, the supply point is allocated to a EUC simply based on its annual quantity.

The peak load for an NDM supply point may then be calculated as:

$$\frac{AQ \times 100}{LoadFactor \times 366}$$

Example

For a supply point in North East (NE) LDZ with an annual consumption of 1,000 MWh per annum.

Assume consumption December to March inclusive is 500 MWh.

WAR ratio = $500 \div 1000 = 0.5$

For a site with an annual consumption of 1,000 MWh, a ratio of 0.5 falls within WAR ratio band W03 and the site is thus within End User Category NE: E2204W03.

For a site in this category, the load factor is 32.9% and the peak daily load is therefore

$$\frac{1000 \times 100}{366 \times 32.9} = 8.30 \text{ MWh}$$

If the required meter reading information is not available to calculate the winter: annual ratio, the supply point is allocated to a EUC simply based on its annual quantity, in this case NE: E2204B.

For a site in this category, the load factor is 37.2% and the peak daily load is therefore

$$\frac{1000 \times 100}{366 \times 37.2} = 7.34 \text{ MWh}$$

Six monthly read sites

In the case of six monthly read sites, the supply point is allocated to a EUC simply based on its annual quantity.

Example

For a non-prepayment supply point in NE LDZ with an annual consumption of 200 MWh per annum, the EUC will be NE: E2202BNI. For a site in this category, the load factor is 36.2% and the peak daily load is therefore

$$\frac{200 \times 100}{366 \times 36.2} = 1.51 \text{ MWh}$$

Notes

The term LDZ is applied in the context of its usage with reference to the UNC daily balancing regime.

For supply points whose consumption is over 73,200 kWh and which include one or more NDM supply meter points, an end user category code can be found in the supply point offer generated by UK Link. This code may be correlated with the end user category code shown below by means of a lookup table issued separately to shippers. Copies are available from the Xoserve Supply Point Administration Management team by emailing externalrequests.spa@xoserve.com

Daily metered supply points

The SOQ of DM sites is known, and hence no-load factor is required.

Supply points with annual consumptions greater than 58,600 MWh should be daily metered. However, a handful of sites remain as non-daily metered because of difficulties installing the daily read equipment. In such cases the end user category code XX:E2209B is used. Firm supply points with an AQ above 73.2 MWh per annum may, at the shipper's request, be classified as daily metered. All interruptible supply points are daily metered.

Consultation on end user categories

Section H of the UNC requires the transporter to publish, by the end of June each year, its demand estimation proposals for the forthcoming supply year. These proposals comprise end user category definitions, NDM profiling parameters (ALPs and DAFs), and capacity estimation parameters (EUC load factors). Analysis is presented to users and consults with the Demand Estimation Sub-Committee (a sub-committee of the UNC) before publication of its proposals Table 2.1 Definition of end user categories.

WAR Bands

The latest set of data from October 2022 can be found below:

EUC code	Site usage		Winter annual ratios (WAR)			
			W01	W02	W03	W04
E2201BND	Up to 73,200 KWh p.a.	Small NDM Sector	-	-	-	-
E2201BNI	Up to 73,200 KWh p.a.		-	-	-	-
E2201BPD	Up to 73,200 KWh p.a.		-	-	-	-
E2201BPI	Up to 73,200 KWh p.a.		-	-	-	-
E2202BND	73,201 to 293,000 KWh p.a.		-	-	-	-
E2202BNI	73,201 to 293,000 KWh p.a.		-	-	-	-
E2202BPD	73,201 to 293,000 KWh p.a.		-	-	-	-
E2202BPI	73,201 to 293,000 KWh p.a.		-	-	-	-
E2203B	293,001 to 732,000 KWh p.a.		-	-	-	-
E2203W0y	293,001 to 732,000 KWh p.a.		0.000 - 0.422	0.423 - 0.477	0.478 - 0.553	0.554 - 1.000
E2204B	732,001 to 2,196,000 KWh p.a.		-	-	-	-
E2204W0y	732,001 to 2,196,000 KWh p.a.		0.000 - 0.422	0.423 - 0.477	0.478 - 0.553	0.554 - 1.000
E2205B	2,196,001 to 5,860,000 KWh p.a.	-	-	-	-	
E2205W0y	2,196,001 to 5,860,000 KWh p.a.	0.000 - 0.376	0.377 - 0.446	0.447 - 0.506	0.507 - 1.000	
E2206B	5,860,001 to 14,650,000 KWh p.a.	-	-	-	-	
E2206W0y	5,860,001 to 14,650,000 KWh p.a.	0.000 - 0.333	0.334 - 0.394	0.395 - 0.485	0.486 - 1.000	
E2207B	14,650,001 to 29,300,000 KWh p.a.	-	-	-	-	
E2207W0y	14,650,001 to 29,300,000 KWh p.a.	0.000 - 0.327	0.328 - 0.358	0.359 - 0.426	0.427 - 1.000	
E2208B	29,300,001 to 58,600,000 KWh p.a.	-	-	-	-	
E2208W0y	29,300,001 to 58,600,000 KWh p.a.	0.000 - 0.327	0.328 - 0.358	0.359 - 0.426	0.427 - 1.000	
E2209B	>= 58,600,001 KWh p.a.	-	-	-	-	
		Large NDM Sector				

End User Categories

The latest set of data from October 2022 can be found below:

Load factors from Oct 2022	NE	NO
E2201BND	33.0%	34.7%
E2201BNI	31.8%	33.8%
E2201BPD	35.1%	37.1%
E2201BPI	31.8%	33.8%
E2202BND	39.6%	40.5%
E2202BNI	36.2%	38.1%
E2202BPD	35.1%	37.1%
E2202BPI	36.2%	38.1%
E2203B	37.1%	39.6%
E2203W01	59.6%	59.8%
E2203W02	45.5%	44.2%
E2203W03	32.9%	32.2%
E2203W04	24.2%	24.7%
E2204B	37.2%	38.7%
E2204W01	59.6%	59.8%
E2204W02	45.5%	44.2%
E2204W03	32.9%	32.2%
E2204W04	24.2%	24.7%
E2205B	42.1%	42.0%
E2205W01	62.2%	63.0%
E2205W02	49.1%	50.9%
E2205W03	39.1%	41.1%
E2205W04	26.8%	27.1%
E2206B	56.2%	50.9%
E2206W01	73.5%	70.4%
E2206W02	60.9%	61.8%
E2206W03	44.0%	47.4%
E2206W04	31.1%	31.6%
E2207B	68.2%	65.8%
E2207W01	76.4%	76.4%
E2207W02	74.7%	74.7%
E2207W03	61.2%	61.8%
E2207W04	38.4%	39.5%
E2208B	68.2%	65.8%
E2208W01	76.4%	76.4%
E2208W02	74.7%	74.7%
E2208W03	61.2%	61.8%
E2208W04	38.4%	39.5%
E2209B	69.5%	70.3%

Exit Capacity Unit Rates (ECN) – Charging methodology

Exit Capacity unit rates are set to recover the costs. Networks receive an allowance to match the cost as it is deemed non controllable and a “pass through” area. During RIIO-GD1 the allowance was set as part of the final determinations process and any difference between forecast and actual cost trued up 2 years after.

In GD2 networks are moving to a rolling revenue process and will include the most recent forecast of exit costs as part of the Annual Iteration Process each November, to be applied in the following year’s charges.

The key components are:

- Calculated ECN base allowance. This is a forecast of exit costs based on the most recent rate published by National Grid and our capacity bookings
- A true up of the difference between actual costs and the previous year’s base allowance figure
- K factor which represents the prior year’s difference between allowed and collected revenue

When setting ECN rates, NGN seeks to recover their allowed revenue as calculated above which may include true ups to adjust for prior year cost differences, rather than solely costs for the year. For this reason, the ECN rate charged will not match the NTS postage stamp unit rate in the same year.

ECN unit rates are calculated by exit zone:

- A cost per exit zone is calculated based on booking amounts by exit zone
- Allowed revenue is then calculated by exit zone by apportioning the revenue allowance on the same basis as the booking allocation amounts
- The latest demand snapshot of each site’s SOQ is used to derive our unit rates

The example below illustrates our methodology.

Example: ECN unit rate calculation

Description	% of total booked capacity attributable to the exit zone	Allowed Revenue Apportioned (£)	Shipper Demand snapshot (KWh)	ECN Unit rate (p/kWh/d)
Calculation	Exit zone booking amount / Total booking amount	Total x (Exit zone cost / total cost)	From Xoserve 'Snapshot' data	Allowed revenue / demand
Exit Zone 1	40.2%	14,926,520	197,735,358	0.0207
Exit Zone 2	12.5%	5,269,007	61,710,696	0.0234
Exit Zone 3	42.1%	15,687,509	207,241,050	0.0207
Exit Zone 4	5.2%	1,796,365	25,649,473	0.0192
Total	100%	37,679,401	492,362,128	0.0210

ECN unit rates will differ across exit zones due to any differences in capacity bookings and a shipper’s demand profile. Potential reasons a shipper’s demand level can differ to our bookings are as follows:

- Timing of bookings compared to the snapshot of shipper demand taken
- User commitments NGN is currently contracted to