

2022/23 Charging Statement

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60 day notice of 22/23 Transportation charges

Introduction

This publication sets out the Local Distribution Zone (LDZ) transportation charges which apply from 1 April 2022 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 on 0113 397 5354 or 07784218966.

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 2022/23 is an increase of 15.4%. This is based on a 17.0% increase in allowed revenue, excluding revenue associated with the supplier of last resort process. Within this increase is a 0.1% forecast impact of capacity related changes, and -1.7% of prior year movements.

The exit capacity price change for 2022/23 is an increase of 50.8%. This is based on a 51.2% increase in allowed revenue, combined with 0.1% forecast impact of capacity related changes, and -0.6% impact of prior year movements.

1.5 Year on year movements in transportation revenue

Table 1 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 process is also split out to provide transparency.

NGN's revenue allowance has increased by £179.5m year-on-year. £64.4m of this total increase is linked to LDZ specific charges, which are required to transport gas through the distribution network.

The allowances outlined in table 1 are based on the PCFM published by Ofgem on 14th January 2022. If Northern Gas Networks collect more or less than their agreed revenue allowance, this over or under collection is added to the following regulatory year's revenue.

Table 1: Year on Year £ movements (nominal)	LDZ	Exit	Last resort claims	Total
21/22 Allowed Revenue	379.7	37.6	-	417.2
Supplier of last resort			95.9	95.9
Inflation	27.4	1.9		29.3
Shrinkage	26.7			26.7
GD1 Legacy adjustments	4.6	19.8		24.3
YoY movements in TOTEX allowances & assumed	9.5			9.5
CMA action - removal of outperformance wedge	6.2			6.2
Incentive revenue	3.5			3.5
Updated WACC & Real price effects	3.1			3.1
Bad Debt	3.1			3.1
K correction factor	(4.4)	0.6		(3.8)
Other revenue items	(4.5)			(4.5)
Other passthrough changes	(2.1)	(3.0)		(5.1)
Superdeduction tax trigger event	(8.8)			(8.8)
22/23 Allowed Revenue	444.1	56.8	95.9	596.77
<i>Year on Year £ movement</i>	<i>64.4</i>	<i>19.2</i>	<i>95.9</i>	<i>179.5</i>
<i>Year on Year % movement</i>	<i>17.0%</i>	<i>51.2%</i>		<i>43.0%</i>
Price Change Breakdown				
Year on Year AR % movement	17.0%	51.2%		
Prior year under/(over) recovery impact	(1.7%)	(0.6%)		
22/23 forecast SOQ impact	0.1%	0.1%		
Overall Price Change	15.4%	50.8%		

Supplier of last resort claims: +£95.9m

Over the last 12-month period 24 gas suppliers, with a portfolio on NGN's network, have undertaken the insolvency process due the surge in wholesale prices seen in global markets. To ensure that the former customers of these insolvent suppliers continue to receive natural gas, Ofgem appointed 8 suppliers to act as the Supplier of Last Resort.

The Supplier of Last Resort process allows these 8 suppliers to submit a claim to Ofgem to recover the costs they have incurred from carrying out these statutory duties. The £95.9m allowance represents the aggregate value of the expenditure claims that have been approved by Ofgem.

Revenue under this charge code will be collected based upon the UNC0797U methodology on a volumetric basis.

Exit capacity charges: +£19.8m related to GD1 legacy true up

To safeguard gas supply, Northern Gas 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.

The biggest year on year increase as shown in table 1 relates to the true up of additional costs incurred, which are attributable to the introduction of the postage stamp methodology in October 2020. This is being true'd up as part of the legacy 2-year lag methodology from RIIO-GD1.

Historical inflation and forecasted growth assumptions: +£29.3m

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 based on a revenue allowance which is calculated on a nominal price basis. Historical CPIH published until June 2021 is used to convert from a 2018/19 price base to nominal. An inflationary forecast published by the Office for Budget Responsibility is used for the months following June 2021, all of which are updated by Ofgem as part of the Annual Iteration Process. The forecast inflation rate for 22/23 is +3.6%.

Shrinkage: +£26.7m

The increase in allowances reflects the current surge in wholesale gas prices. The average price per therm assumed in this update is £1.60 and £2.11 in the regulatory years 2021/22 and 2022/23 respectively.

YoY movements in TOTEX and expenditure allowances: +£9.5m

At final determination (published 8th December 2020), Ofgem applied an ongoing efficiency target to the calculation of NGN's annual cost allowances which included an uplift to account for an assumed return on innovation spend. The Competition and Markets Authority (CMA) accepted NGN's ground for appeal to remove this uplift value from the calculation of the target. The increase of £9.5m reflects the removal of this uplift value, and the annual change in expenditure allowances which occurs when moving from one regulatory year to the next.

Removal of outperformance wedge: +£6.2m

At final determination, Ofgem included in the calculation of NGN's cost of equity an outperformance assumption of 0.25%. The CMA accepted NGN's ground for appeal to remove this assumption.

Incentive revenue: +£3.5m

At final determination, Ofgem incorrectly calculated the incentive NGN received for being benchmarked as the most cost-efficient distribution network. Ofgem revised this calculation post final determination.

WACC & Real price effects: +£3.1m

The regulator has updated NGN's cost of debt allowance to account for the latest iBoxx indices, and the cost of equity allowance to account for the latest view of yields on UK government securities.

Ofgem have updated the indices used to account for the latest view of inflation. Real price effects are applied to the expenditure allowances on categories of expenditure which experience inflationary pressures which aren't aligned to CPIH.

Bad debt: +£3.1m

NGN have included a bad debt provision which relates to the insolvency of Contract Natural Gas.

Super deduction tax trigger event: -£8.8m

The UK government has changed the tax guidelines to support businesses during the COVID pandemic. This super-deduction aims to encourage companies to invest in productivity enhancing plant and machinery assets.

Other revenue items: -£4.5m

Ofgem assess the financial resilience of each distribution network based on that of a notional efficient operator. In GD2 the regulator made the decision to reduce the level of gearing for the notional company from 65% to 60%, this regearing has resulted in a movement in net debt of £115.9m. There was an allowance of £5.4m in 2021/22 only to recover the costs associated with raising equity, such as brokerage and legal fees.

Under/Over Recovery: -£3.8m

Current projections of collected revenue estimate an overcollection of revenue in 2021/22. This will be returned to customers in formula year 2022/23.

Other factors which impact upon the calculation of the unit rates for the regulatory year 2022/23**Xoserve publishing new load factors which alters the SOQ of each supply meter point**

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.

We have assumed a 0.1% reduction in peak day capacity levels to calculate the price points for the regulatory year 2022/23.

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 **-0.1%** from April 2022; based on data provided by Xoserve in December 2021. As capacity is forecast to reduce by -0.1%, the price change includes a compensating increase of +0.1% to ensure NGN collects the required Allowed Revenue figure for 2022/23.

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.	0.2117	0.0334
73,200 to 732,000 kWh p.a.	0.1819	0.0286
732,000 kWh and above p.a.	$2.1343 \times \text{SOQ}^{-0.2834}$	$0.3670 \times \text{SOQ}^{-0.2940}$
Subject to a minimum rate of	0.0054	0.0010
Minimum reached at SOQ of	1,456,257,568	528,876,122

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.	0.2117	0.0334
73,200 to 732,000 kWh p.a.	0.1819	0.0286
732,000 kWh and above p.a.	$2.1343 \times \text{SOQ}^{-0.2834}$	$0.3670 \times \text{SOQ}^{-0.2940}$
Subject to a minimum rate of	0.0054	0.0010
Minimum reached at SOQ of	1,456,257,568	528,876,122

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 or 07784 218966 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.	0.1130
73,200 to 732,000 kWh p.a.	0.0040
732,000 kWh and above p.a.	$0.0863 \times SOQ^{-0.2100}$

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	35.5069
Monthly read supply points	37.8066

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	0.0293
NE2	0.0330
NE3	0.0330
NO1	0.0299
NO2	0.0276

2.4 Supplier of Last Resort charge - UNC Modification 0797U

The Supplier of Last Resort charge is based on system capacity. In 2022/23, this charge only applies to domestic sites within a shipper's portfolio that is directly connected to the distribution network.

Charge type	Supplier of last resort
Charge code	TBC – Still to be created in Xoserve systems
Unit rate	Pence per peak day kWh
Domestic sites	0.0900

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 live – for sites that become live during 2022/23, unit rates will be calculated accordingly and an Xoserve notification made so the shipper gets charged correctly. Please contact the NGN pricing manager on 0113 397 5354 or 07784 218966 if rates are needed prior to the go live date.

Xoserve Site name	Charge Type		LDZ System Entry Commodity	
	Charge Code		LEC	
	Site Name	Go Live Date	Pence per kWh	Unit Rate: Charge or Credit
HOWDOS	Howdon	17/02/2015	(0.04787)	Credit
FOOTOS	Teeside	29/09/2015	(0.01497)	Credit
LEEMOS	Leeming	22/12/2015	0.00113	Credit
ASPAOS	Cumbria	31/05/2016	(0.01184)	Credit
RIDGOS	Ridge Road Sherburn in Elmet	21/07/2016	0.01892	Charge
SHEROS	Agri Sherburn in Elmet	01/12/2016	(0.03957)	Credit
GRAVOS	Gravel Pit	06/12/2016	(0.00356)	Credit
NEWTOS	Emerald Biogas	08/12/2016	(0.05667)	Credit
BURTOS	Burton Agnes	18/01/2017	0.02741	Charge
LANEOS	Lanes Farm	14/10/2019	(0.05800)	Credit
SPALOS	Spaldington	22/10/2019	0.00585	Charge
BRANOS	Bran Sands	28/11/2019	(0.06060)	Credit
WARDOS	Wardley	09/12/2019	0.00061	Credit
PARKOS	Park Farm	18/12/2019	(0.01574)	Credit
PLAXOS	Plaxton Bridge	24/01/2020	0.27814	Charge
HEDLOS	High Hedley	29/01/2020	0.13273	Charge
MILLOS	Mill Nurseries	n/a	n/a	n/a

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
LDZ Capacity Invoice: LDZ Capacity (ZCA) See: Section 2.1.1 Basis: p / peak day kWh / day	Volume: 365 days x 100,000 (SOQ) = 36,500,000 Unit Rate $2.1343 \times 100,000 \text{ (SOQ)}^{-0.2834}$ = 0.0817 p / pdkWh / day Annual Charge: £29,820.50
Plus ↓	
LDZ Commodity Invoice: Commodity (ZCO) See: Section 2.1.1 Basis: p / kWh	Volume: 20,000,000 (AQ) Unit Rate $0.367 \times 100,000 \text{ (SOQ)}^{-0.2940}$ = 0.0124 p / kWh Annual Charge: £2,480.00
Plus ↓	
Customer (Capacity) Invoice: LDZ Capacity (CCA) See: Section 2.2.1 Basis: p / peak day kWh / day	Volume: 365 days x 100,000 (SOQ) = 36,500,000 Unit Rate $0.0863 \times 100,000 \text{ (SOQ)}^{-0.2100}$ = 0.0077 p / pdkWh / day Annual Charge: £2,810.50
Plus ↓	
LDZ Exit (Capacity) Invoice: Exit Capacity (ECN) See: Section 2.3 Basis: p / peak day kWh / day	Volume: 365 days x 100,000 (SOQ) = 36,500,000 Unit Rate 0.0293 p / pdkWh / day Annual Charge: £10,694.50
Total Annual Charge	Total annual charge = £45,805.50

Example B(ii) – 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 32.6%. The peak daily load (SOQ) is therefore $14,000 \div (365 \times 0.326) = 118$ kWh.

Process	Calculations Used
LDZ Capacity Invoice: LDZ Capacity (ZCA) See: Section 2.1.1 Basis: p / peak day kWh / day	Volume: 365 days x 118 (SOQ) = 43,070 Unit Rate: 0.2117 p / pdkwh / day Annual Charge: £91.18
Plus	
LDZ Commodity Invoice: Commodity (ZCO) See: Section 2.2.1 Basis: p / kWh	Volume: 14,000 (AQ) Unit Rate: 0.0334 p / kWh Annual Charge: £4.68
Plus	
Customer (Capacity) Invoice: LDZ Capacity (CCA) See: Section 2.2.1 Basis: p / peak day kWh / day	Volume: 365 days x 118 (SOQ) = 43,070 Unit Rate: 0.1130 p / pdkwh / day Annual Charge: £48.67
LDZ Specific Annual charge	Total annual charge = £144.53
Plus	
LDZ Exit (Capacity) Invoice: Exit Capacity (ECN) See: Section 2.3 Basis: p / peak day kWh / day	Volume: 365 days x 118 (SOQ) = 43,070 Unit Rate: 0.0293 p / pdkwh / day Annual Charge: £12.62
Plus	
Supplier of Last Resort charge (Capacity) Invoice: TBC See: Section 2.4 Basis: p / peak day kWh / day	Volume: 365 days x 118 (SOQ) = 43,070 Unit Rate: 0.090 p / pdkwh / day Annual Charge: £38.76
Total Annual Charge	Total annual charge = £195.91

Example B(iii) – 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 NE1Exit Zone is 32.6%. The peak daily load (SOQ) is therefore $20,000 \div (365 \times 0.326) = 168$ kWh.

Process	Calculations Used
LDZ Capacity Invoice: LDZ Capacity (ZCA) See: Section 2.1.1 Basis: p / peak day kWh / day	Volume: 365 days x 168 (SOQ) = 61,320 Unit Rate: 0.2117 p / pdkWh / day Annual Charge: £129.81
Plus	
LDZ Commodity Invoice: Commodity (ZCO) See: Section 2.2.1 Basis: p / kWh	Volume: 20,000 (AQ) Unit Rate: 0.0334 p / kWh Annual Charge: £6.68
Plus	
Customer (Capacity) Invoice: LDZ Capacity (CCA) See: Section 2.2.1 Basis: p / peak day kWh / day	Volume: 365 days x 168 (SOQ) = 61,320 Unit Rate: 0.1130 p / pdkWh / day Annual Charge: £69.29
LDZ Specific Annual charge	Total annual charge = £205.78
Plus	
LDZ Exit (Capacity) Invoice: Exit Capacity (ECN) See: Section 2.3 Basis: p / peak day kWh / day	Volume: 365 days x 168 (SOQ) = 61,320 Unit Rate: 0.0293 p / pdkWh / day Annual Charge: £17.97
Plus	
Supplier of Last Resort charge (Capacity) Invoice: TBC See: Section 2.4 Basis: p / peak day kWh / day	Volume: 365 days x 168 (SOQ) = 61,320 Unit Rate: 0.090 p / pdkWh / day Annual Charge: £55.19
Total Annual Charge	Total annual charge = £278.94

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 / (365 x load factor))
Prevailing	100 houses x 20,000 (AQ) = 2,000,000 kWh	$2,000,000 \div (365 \times 0.326) =$ 16,808 kWh
Maximum	150 houses x 20,000 (AQ) = 3,000,000 kWh	$3,000,000 \div (365 \times 0.326) =$ 25,212 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
LDZ Capacity Invoice: ADC (891) See: Section 2.1.2 Basis: p / peak day kWh / day	Volume: $365 \text{ days} \times 16,808 \text{ (pre SOQ)} = 6,134,920$ Unit Rate: $2.1343 \times 25,212 \text{ (max SOQ)}^{-0.2834}$ $= 0.1207 \text{ p / pdkWh / day}$ Annual Charge: £7,404.85
Plu LDZ Commodity Invoice: ADC (893) See: Section 2.1.2 Basis: p / kWh	Volume: 2,000,000 (pre AQ) Unit Rate: $0.3670 \times 25,212 \text{ (max SOQ)}^{-0.294}$ $= 0.0186 \text{ p / kWh}$ Annual Charge: £372.00
Plu LDZ Exit (Capacity) Invoice: Exit Capacity (ECN) See: Section 2.3 Basis: p / peak day kWh / day	Volume: $365 \text{ days} \times 16,808 \text{ (SOQ)} = 6,134,920$ Unit Rate: 0.0293 p / pdkWh / day Annual Charge: £1,797.53
Total Annual Charge	Total annual charge = £9,574.38

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 22/23 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:

$$\frac{AQ \times 100}{LoadFactor \times 365}$$

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 W02 and the site is thus within End User Category NE: E2104W02.

For a site in this category, the load factor is 45.6% and the peak daily load is therefore

$$\frac{1000 \times 100}{365 \times 45.6} = 6.01 \text{ MWh}$$

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: E2104B.

For a site in this category, the load factor is 37.8% and the peak daily load is therefore

$$\frac{1000 \times 100}{365 \times 37.8} = 7.25 \text{ MWh}$$

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: E2102BNI. For a site in this category, the load factor is 36.8% and the peak daily load is therefore

$$\frac{200 \times 100}{365 \times 36.8} = 1.49 \text{ MWh}$$

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:E2109B 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 2021 can be found below:

EUC code	Site usage		Winter annual ratios (WAR)			
			W01	W02	W03	W04
E2101BND	Up to 73,200 KWh p.a.	Small NDM Sector	-	-	-	-
E2101BNI	Up to 73,200 KWh p.a.		-	-	-	-
E2101BPD	Up to 73,200 KWh p.a.		-	-	-	-
E2101BPI	Up to 73,200 KWh p.a.		-	-	-	-
E2102BND	73,201 to 293,000 KWh p.a.		-	-	-	-
E2102BNI	73,201 to 293,000 KWh p.a.		-	-	-	-
E2102BPD	73,201 to 293,000 KWh p.a.		-	-	-	-
E2102BPI	73,201 to 293,000 KWh p.a.		-	-	-	-
E2103B	293,001 to 732,000 KWh p.a.		-	-	-	-
E2103W0y	293,001 to 732,000 KWh p.a.		0.000 - 0.442	0.443 - 0.517	0.518 - 0.626	0.627 - 1.000
E2104B	732,001 to 2,196,000 KWh p.a.	Large NDM Sector	-	-	-	-
E2104W0y	732,001 to 2,196,000 KWh p.a.		0.000 - 0.442	0.443 - 0.517	0.518 - 0.626	0.627 - 1.000
E2105B	2,196,001 to 5,860,000 KWh p.a.		-	-	-	-
E2105W0y	2,196,001 to 5,860,000 KWh p.a.		0.000 - 0.392	0.393 - 0.480	0.481 - 0.564	0.565 - 1.000
E2106B	5,860,001 to 14,650,000 KWh p.a.		-	-	-	-
E2106W0y	5,860,001 to 14,650,000 KWh p.a.		0.000 - 0.355	0.356 - 0.441	0.442 - 0.537	0.538 - 1.000
E2107B	14,650,001 to 29,300,000 KWh p.a.		-	-	-	-
E2107W0y	14,650,001 to 29,300,000 KWh p.a.		0.000 - 0.339	0.340 - 0.383	0.384 - 0.465	0.466 - 1.000
E2108B	29,300,001 to 58,600,000 KWh p.a.		-	-	-	-
E2108W0y	29,300,001 to 58,600,000 KWh p.a.		0.000 - 0.339	0.340 - 0.383	0.384 - 0.465	0.466 - 1.000
E2109B	>= 58,600,001 KWh p.a.		-	-	-	-

End User Categories

The latest set of data from October 2021 can be found below:

Load factors from Oct 2021	NE	NO
E2101BND	32.6%	34.5%
E2101BNI	31.7%	35.3%
E2101BPD	35.6%	37.4%
E2101BPI	31.7%	35.3%
E2102BND	40.1%	41.0%
E2102BNI	36.8%	39.9%
E2102BPD	35.6%	37.4%
E2102BPI	36.8%	39.9%
E2103B	38.8%	40.6%
E2103W01	55.8%	58.4%
E2103W02	45.6%	46.0%
E2103W03	33.0%	32.7%
E2103W04	24.5%	25.1%
E2104B	37.8%	38.4%
E2104W01	55.8%	58.4%
E2104W02	45.6%	46.0%
E2104W03	33.0%	32.7%
E2104W04	24.5%	25.1%
E2105B	42.7%	42.0%
E2105W01	59.1%	61.0%
E2105W02	48.5%	51.8%
E2105W03	38.6%	40.5%
E2105W04	26.6%	26.6%
E2106B	55.3%	49.1%
E2106W01	67.8%	65.4%
E2106W02	59.9%	60.7%
E2106W03	44.4%	48.1%
E2106W04	29.4%	32.6%
E2107B	66.2%	63.2%
E2107W01	70.8%	70.2%
E2107W02	71.7%	72.8%
E2107W03	60.6%	62.0%
E2107W04	37.1%	40.8%
E2108B	66.2%	63.2%
E2108W01	70.8%	70.2%
E2108W02	71.7%	72.8%
E2108W03	60.6%	62.0%
E2108W04	37.1%	40.8%
E2109B	67.1%	67.6%

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	39.6%	£22,408,822	209,252,654	0.0293
Exit Zone 2	14.0%	£7,910,232	65,674,221	0.0330
Exit Zone 3	41.6%	£23,551,277	215,773,093	0.0299
Exit Zone 4	4.8%	£2,714,466	26,975,716	0.0276
Total	100%	£56,584,797	517,675,684	

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 are currently contracted to