

# Statement of LDZ Transportation and SoLR Charges

To apply from  
1<sup>st</sup> April 2023 – 31<sup>st</sup> March 2024



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## Introduction

This publication sets out the Local Distribution Zone (LDZ) transportation charges which will apply from 1st April 2023 to 31st March 2024 for the use of the Wales & West Utilities Ltd (WWU) Distribution Network (DN), as required by Standard Special Condition (SSC) A4 of the Gas Transporter Licence (GTL). This document does not override or vary any of the statutory, licence or Uniform Network Code (UNC) obligations upon WWU.

Our final price change on 1<sup>st</sup> April 2023, will be an average increase of 17.3% over 2022/23 prices. This comprises:

Total Revenue							
17.3 %							
Transportation Income		Exit Capacity		SoLR			
24.4% (Indicative: 24.5%)		-37.1% (Indicative: -17.2%)		-73% (Indicative: -100%)			
Capacity		Commodity				By Exit Zone	
System	Customer	59.2% (Indicative: 62.4 %)	SW1			0.0147 / -38.2%	
			SW2			0.0245 / -36.4%	
23.2% (Indicative: 23.4%)	23.8% (Indicative: 23.6%)		SW3			0.0163 / -38.0%	
			WA1			0.0192 / -37.9%	
			WA2	0.0186 / -37.4%			

For more information about these changes, or our charges, please contact the pricing team at [pricing@wwutilities.co.uk](mailto:pricing@wwutilities.co.uk).

## Revenue

### Total revenue

RIIO-GD2 requires networks to set charges to collect the forecast allowed revenue calculated under the price control. These charges are split between:

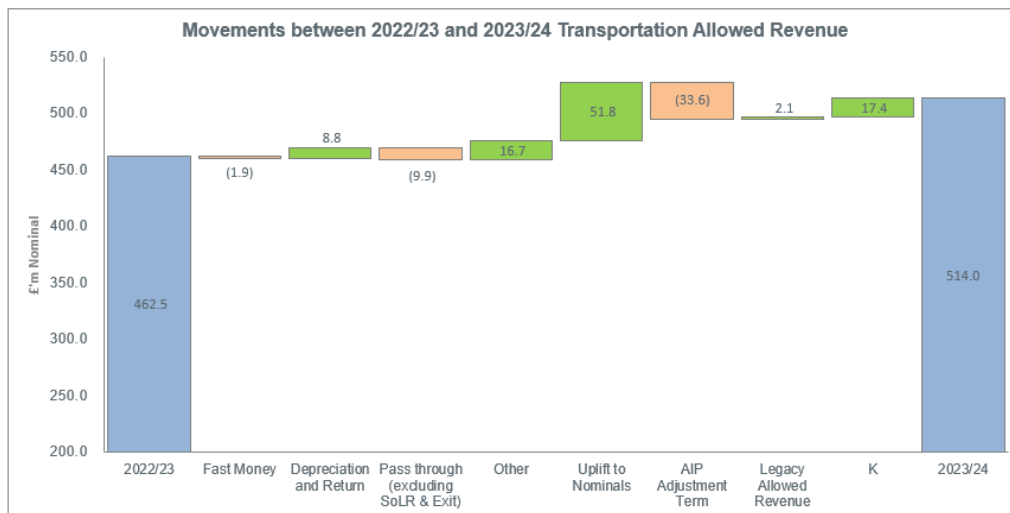
- 1) transportation allowed revenue (excluding exit capacity);
- 2) exit capacity revenue, which recovers the costs incurred from utilising the upstream network, the National Transmission System (NTS); and
- 3) SoLR revenue which a network is obligated to charge under its licence.

	2022/23 (£'m)	2023/24 (£'m)	Movement (£'m)	Movement (%)
Transportation Allowed Revenue	462.5	514.0	51.5	11%
Exit Capacity Allowed Revenue	53.3	33.5	-19.8	-37%
SoLR Revenue	95.9	26.0	-69.9	-73%
<b>Total</b>	<b>611.7</b>	<b>573.5</b>	<b>-38.2</b>	<b>-6%</b>

The percentage movements shown above reflect movements in revenues between 2022/23 and 2023/24. These are different to the price change percentages shown on page 3, due to the application of the change in demand forecast between 2022/23 and 2023/24 to calculate the final price changes.

## Transportation Allowed Revenue

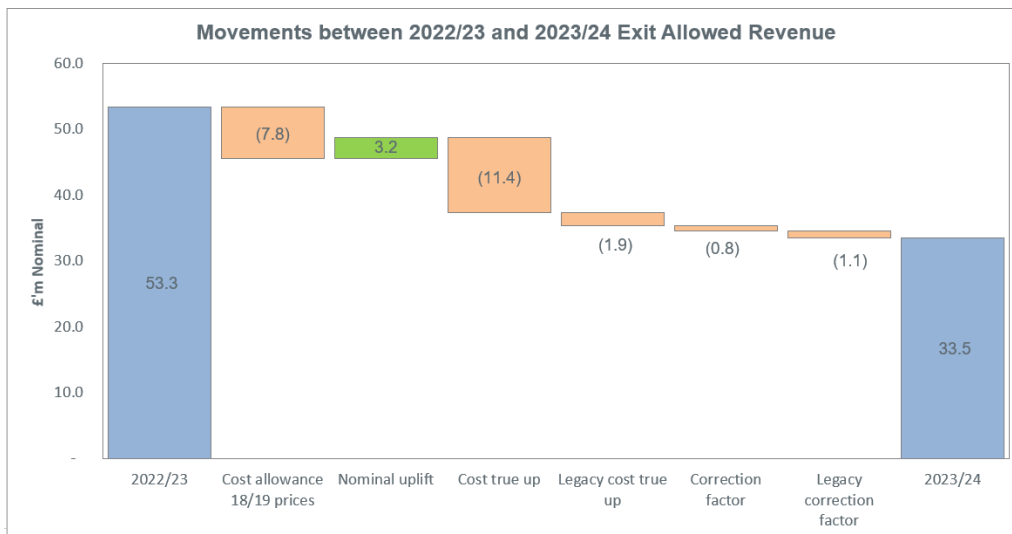
Our forecast transportation allowed revenue increases by £51.5m in 2023/24. The most notable movements in the underlying drivers are:



- 1) Fast Money – reflects the profile of Totex expenditure forecast year on year.
- 2) Depreciation and Return – increases each year as more Totex is capitalised, this is offset by a reduction in return on RAV due to the reducing allowed return on debt.
- 3) Pass through (excluding SoLR & Exit) – have decreased mainly as a result of a reduction in prescribed rates of £6.6m and licence modifications to remove £4.5m of bad debt from pass through costs.
- 4) Other – the difference is mainly attributable to an increase in tax allowances in 2023/24 as a result of an increase in the statutory corporation tax rate from 19% to 25% effective from 1 April 2023 and regulatory taxable profits impacting the tax allowance.
- 5) Uplift to Nominals – the increase in the nominal uplift reflects the November 2022 OBR inflation predictions which increased significantly from the inflation assumptions in the previous year.
- 6) AIP Adjustment Term - in 2023/24 this reflects the difference in the latest forecast allowances and pass-through costs for 2022/23 and those used for price setting in January 2022.
- 7) Legacy Allowed Revenue - balance relates to legacy RIIO-GD1 adjustments following licence changes made post-CMA and Ofgem's decision on the RIIO-GD1 close-out methodologies (excluding WWU Tax Clawback) in April 2022. The close out methodology values, including WWU Tax Clawback, remain provisional subject to Ofgem direction.
- 8) K - primarily reflects under recovery of allowed versus collected revenue in 2022/23.

### Exit Capacity Allowed Revenue

Following the implementation of UNC Modification 0195AV, industry arrangements for the charging of NTS Exit Capacity costs changed on 1<sup>st</sup> October 2012. National Gas invoices DNs based on their use of the NTS, and the Exit Point bookings made by the DNs. Ofgem provides an allowance to networks to recover the anticipated cost of Exit Capacity, and a mechanism to adjust where these costs fall outside those anticipated. For 2023/24 our allowances decrease by £19.8m from £53.3m to £33.5m:



- 1) Cost allowance 18/19 prices – the base allowance in 2023/24 is calculated using the latest published final and indicative price information from National Gas NTS.
- 2) Nominal uplift – the increase in the nominal uplift reflects the November 2022 OBR inflation forecast for 2023/24 which increased significantly from the inflation assumptions in the previous year.
- 3) Cost true up – the RIIO-GD2 cost true up reflects the difference between cost allowances and actuals in 2021/22 and latest forecasts for 2022/23. A reduction in costs has caused a negative true up resulting in reduced allowed revenue in respect of Exit Capacity.
- 4) Legacy cost true up – for RIIO-GD1 the true up was reflected in 2022/23 only, no such true up in 2023/24 hence the reduction.
- 5) Correction factor – reflects the allowed versus collected revenue in 2022/23 in respect of Exit Capacity.
- 6) Legacy correction factor – for RIIO-GD1 the correction factor was reflected in 2022/23 only, no such true up in 2023/24 hence the reduction.

### Supplier of Last Resort Allowed Revenue

When the Office of Gas and Electricity Markets (Ofgem) revokes a supply licence (usually because of insolvency), it can appoint a 'Supplier of Last Resort' (SoLR) on a case-by-case basis to take over the supply of gas and/or electricity to the insolvent supplier's customers. The aim is to provide seamless continuity of service for customers. The regulatory regime for this is primarily provided for in the Standard Conditions of the supply licences held by Great Britain's (GB's) electricity suppliers and gas suppliers.

The gas and electricity supply standard licence conditions allow a supplier acting as SoLR to make a claim for any reasonable additional, otherwise unrecoverable, costs they incur. Historically SoLRs have claimed for the following categories of costs:

- Customer credit balances;
- Working capital; and
- Operational costs (including customer service, IT, complaints/enquiries specific to the SoLR, onboarding costs, communication and wholesale energy purchase costs).

Revenues to be raised in 2023/24 by DNs to pay valid SoLR claims will be charged to domestic customers, whether connected via an Independent Gas Transporters (IGTs) CSEP or directly connected to a DN, using the specific SoLR charge type. For valid SoLR claims received by DN's by 31 December 2022, licensees are obliged to increase transportation charges to recover the amounts in the valid claims in 2023/24. The total value of claims received by WWU by 31 December 2022 is £26.0m; reflecting true-up claims for SoLRs appointed in 2021 of £21.3m and claims by SoLRs appointed in 2022 of £4.7m.

## Transportation and SoLR Charges

These charges reflect those published in our Final Notification of LDZ Transportation and SoLR charges.

### Charges to recover Transportation Allowed Revenue

	Current Price effective from 1 <sup>st</sup> April 2022	Final Price effective from 1 <sup>st</sup> April 2023
<b>LDZ SYSTEM COMMODITY CHARGES</b>	<b>Pence per kwh</b>	
UP TO 73,200 KWH PER ANNUM	0.0360	0.0573
73,200 KWH - 732,000 KWH PER ANNUM	0.0314	0.0500
732,000 KWH PER ANNUM AND ABOVE	0.3648	0.5808
	x SOQ ^	
	-0.2775	-0.2775
SUBJECT TO A MINIMUM RATE OF	0.0026	0.0041

	<b>Pence per peak day kwh per day</b>	
<b>LDZ SYSTEM CAPACITY CHARGES</b>		
UP TO 73,200 KWH PER ANNUM	0.2161	0.2662
73,200 KWH - 732,000 KWH PER ANNUM	0.1875	0.2310
732,000 KWH PER ANNUM AND ABOVE	1.6787	2.0682
	x SOQ ^	
	-0.2513	-0.2513
SUBJECT TO A MINIMUM RATE OF	0.0159	0.0196

	<b>Pence per peak day kwh per day</b>	
<b>LDZ CUSTOMER CAPACITY CHARGES</b>		
UP TO 73,200 KWH PER ANNUM	0.1119	0.1385
73,200 KWH - 732,000 KWH PER ANNUM	0.0044	0.0054
732,000 KWH PER ANNUM AND ABOVE	0.0883	0.1093
	x SOQ ^	
	-0.2100	-0.2100



## Transportation and SoLR Charges

LDZ CUSTOMER FIXED CHARGES	Pence per day	
73,200 KWH - 732,000 KWH PER ANNUM - BI-ANNUAL READ SITES	34.9290	43.2421
73,200 KWH - 732,000 KWH PER ANNUM - MONTHLY READ SITES	37.1918	46.0434

### Charges to recover Exit Allowed Revenue

EXIT CAPACITY UNIT RATES BY EXIT ZONE	Current Price effective from 1 <sup>st</sup> April 2022	Final Price effective from 1 <sup>st</sup> April 2023
	Pence per peak day kwh per day	
SW1	0.0240	0.0147
SW2	0.0385	0.0245
SW3	0.0263	0.0163
WA1	0.0309	0.0192
WA2	0.0297	0.0186

### Charges to recover SoLR Allowed Revenue

SUPPLIER OF LAST RESORT CHARGES	Price effective from 1 <sup>st</sup> April 2022	Price effective from 1 <sup>st</sup> October 2022	Final Price effective from 1 <sup>st</sup> April 2023
	Pence per peak day kwh per day		
LRSP Domestic Charge*	0.0914	0.0687	0.0248
LRSP Industrial Charge	0.0000	0.0000	0.0000

\* A mid-year price change came into effect from 1<sup>st</sup> October 2022 which reduced the unit rate for directly connected customers to the extent of amounts to be recovered from IGTs.

## Optional LDZ Charge

The optional LDZ tariff is available, as a single charge, as an alternative to the standard LDZ system charges. This tariff may be attractive to large loads located close to the NTS. The rationale for the optional tariff is that, for large Network loads located close to the NTS or for potential new Network loads in a similar situation, the standard LDZ tariff can appear to give perverse economic incentives for the construction of new pipelines when Network connections are already available. This could result in an inefficient outcome for all system users. The optional LDZ charge aims to overcome this perverse situation.

The charge is calculated using the function below:

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

Where:

(SOQ) = Registered Supply Point Capacity, or other appropriate measure, in kWh per day

D = Direct distance, in km, from the site boundary to the nearest point on the NTS.

Note that ^ means “to the power of.”

## LDZ System Entry

### DN Entry Commodity Charge/Credit

DN Entry Commodity charges reflect the costs of receiving gas from an entry point at a lower pressure tier than the NTS. The charge/credit will differ according to the amount of gas entering the network system, the pressure tier at which the gas enters the system and the operational costs resulting from the entry point.

The charge, which comprises the following three elements, is an adjustment to the full transportation charge:

- 1) Lower System Usage: For the gas received from this source the Shippers will get a credit in recognition that the gas has entered the network at a lower pressure tier, thus using less of the network system.
- 2) Avoidance of Exit Capacity: The Shipper will receive a credit for the avoidance of exit capacity charges as they have not taken gas which has entered the Wales & West network through the National Transmission offtake point.
- 3) Operational Costs: The Shipper will be charged an operational cost, principally maintenance, relating to the equipment owned and operated by the Gas Distribution Network.

The sum of the above three components may result in either a credit or a debit to the Shipper. The table below gives the entry commodity unit price for all known sites within the Wales & West Network set to operate during 2023/24. Where additional sites are connected which are not currently planned to flow during 2023/24 these will be published if and when information on pressure tier, specific opex costs and flows are available. Typically, this may not be until a Gemini site name is allocated to the connection.

## LDZ System Entry Commodity Charge/Credit by DN Entry point

Site Name	GEMINI Name	Alias	LDZ System Entry Commodity Charge (p/kWh) Current Prices	LDZ System Entry Commodity Charge (p/kWh) Prices effective 1 April 2023
BROMHAM HOUSE FARM	BROMOS		-0.1187	-0.1676
CANNINGTON BIOMETHANE	CANNOS		-0.1216	-0.1709
BISHOPS CLEEVE BIOMETHANE	CLEEOS	Grundon Landfill / Wingmoor Farm	-0.1113	-0.1676
ENFIELD BIOMETHANE	ENFDOS		-0.0691	-0.1005
FIVE FORDS BIOMETHANE	FIVEOS		-0.0358	-0.0957
FRADDON	FRADOS	Penare Farm	-0.1071	-0.1547
FROGMARY BIOMETHANE	FROGOS		-0.1187	-0.1676
GREAT HELE BIOMETHANE	HELEOS	Nadder Lane	-0.0722	-0.0957
HELSCOTT FARM	HELLOS		-0.1187	-0.1676
ROTHERDALE	ROTHOS	Vale Green 2	-0.0824	-0.1070
SPITTLES FARM	SPITOS	Bearley Farm	-0.1187	-0.1676
SPRINGHILL BIOMETHANE	SPNGOS		-0.0649	-0.0922
PENNANS FARM	PENSOS		-0.1187	-0.1676
NORTHWICK	NOCKOS		-0.0848	-0.1097
AVONMOUTH WESSEX	WESXOS	Wessex Water	-0.1279	-0.1778
WILLAND	WILLOS		-0.1187	-0.1676
WYKE FARM	WYKEOS		-0.1237	-0.1732
EVERCREECH BIOMETHANE	EVEROS		-0.1275	-0.1676
TROWBRIDGE BIOMETHANE	TRWBOS		-0.0746	-0.0984
ABSL SWINDON*	ABSLOS		-0.1071	-0.1547
CHARLTON PARK	CPFAOS		-0.1211	-0.1703

\*Not currently connected however this is a best estimate of the expected rate.

## Charge Types and Invoice Mapping

### Xoserve Charge Mapping

The following list presents the core invoice and charge types reflected in this document, which are billed by Xoserve on our behalf. A full list of current invoice and charge types is available through the Xoserve Shared Area. For more information on invoicing, please contact Xoserve, the invoicing service provider, via e-mail at [css\\_billing@xoserve.com](mailto:css_billing@xoserve.com).

	Invoice Type	Charge Type
<b>LDZ Capacity</b>		
Supply Point LDZ Capacity	CAZ	ZCA
CSEP LDZ Capacity	CAZ	891
Unique Sites LDZ Capacity Charge	CAZ	871
Unique Sites Optional Tariff	CAZ	881
<b>Customer Capacity</b>		
Customer LDZ Capacity	CAZ	CCA
Customer Capacity fixed Charge	CAZ	CFI
Unique Sites Customer Capacity	CAZ	872
<b>Commodity</b>		
LDZ Commodity	COM	ZCO
CSEP Commodity	COM	893
Unique Sites Commodity	COM	878
LDZ System Entry Commodity Charge	COM	LEC
<b>Exit Capacity</b>		
LDZ Exit Capacity	CAZ	ECN
CSEP Exit Capacity	CAZ	C04
Unique Sites Exit Capacity	CAZ	901
<b>Supplier of Last Resort</b>		
LRSP Domestic Charge	CAZ*	LRD
LRSP Industrial Charge	CAZ*	LRI

\* From April 2023

## Contact Us

Any questions or queries relating to this document or transportation charges in general please do not hesitate to contact our Pricing Team via email to [Pricing@wwutilities.co.uk](mailto:Pricing@wwutilities.co.uk) or visit our website: <http://www.wwutilities.co.uk/>

### Our ambition, priorities and values

#### Our new ambition

Trusted to expertly serve customers and communities with safe, reliable and affordable energy services today, whilst investing wisely to create a sustainable, greener future.



#### Our new priorities

##### Demanding SAFETY ALWAYS

We never compromise on the safety, wellbeing and health of our colleagues and customers, always raising the bar and improving standards.



##### Driving OUTSTANDING SERVICE

We strive to exceed customer expectations by offering fair, inclusive, quality services for all, whilst looking after those most in need.



##### Delivering VALUE FOR MONEY

We always spend and invest money wisely; working smarter to offer affordable, value for money services.



##### Doing all we can to provide SUSTAINABLE ENERGY

We're future proofing to deliver reliable, greener energy for heat, power and transport, and reducing our environmental impact to achieve net zero targets.



##### Designing OUR FUTURE

We're building a skilled, resilient, and diverse team to work in partnership with our stakeholders. Together, helping our communities and society thrive.



#### Our values

##### We put customers first

We build trust by giving excellent service, listening and taking action on what our customers tell us.



##### We take pride

We take ownership and are accountable for our work, going above and beyond to get great results.



##### We work as a team

We build relationships with colleagues and partners, share best practice and encourage honest, open conversations.



##### We bring energy

We approach all our work with enthusiasm, always challenging outcomes to do better by embracing new ideas and innovative solutions.



## Appendix 1 – Application of Charging Methodology

### Application of the charging methodology

SSC A4 requires licensees to establish a methodology showing the methods and principles on which transportation charges are based. The existing charging methodology was introduced in 1994 and it has been modified from time to time in accordance with the GTL and UNC.

### Objectives of the charging methodology

The transportation charging methodology must comply with objectives set out SSC A5 paragraph 5 to:

- result in charges which reflect the costs incurred by the licensee in its transportation business;
- facilitate effective competition between gas shippers and between gas suppliers; and
- properly take account of developments in the transportation business.

In addition to the above WWU also considers that the distribution charging methodology should:

- promote efficient use of the distribution system; and
- generate stable charges that are easy to understand and implement.

Before making any changes to the existing methodology, licensees must raise a UNC modification proposal and consult with industry in accordance with SSC A5. Ofgem has the right to veto any proposed changes to the charging methodology.

### Structure of charges

Structurally, LDZ charges are split between system and customer related activities respectively, to reflect the cost of each area of activity. The recovery of total LDZ revenue, calculated in accordance with the price control, is recovered from LDZ system charges and LDZ customer charges based on the following split as per DNPC05:

System Related (%)	Customer Related (%)	Total (%)
71.8	28.2	100.0

Having established the system:customer split the next step is to structure the LDZ system charges and LDZ customer charges across load bands such that they reasonably reflect the costs imposed on the system by different sizes of loads using the methodologies outlined below.

The system:customer split above is periodically reviewed by licensees to evaluate whether they remain broadly reflective of the costs incurred pursuant to the charging methodology objectives of SSC A5.

### LDZ System Charges

LDZ System charges are based on the methodology outlined in consultation report on DNPC08 - [Review of Standard LDZ System Charges](#) and Ofgem's associated [Direction](#). The distribution networks contain a series of pipe networks split into four main pressure tiers:

Pressure Tier	Operating Pressure
<b>Local Transmission System (LTS)</b>	7 - 38 bar
<b>Intermediate Pressure System (IPS)</b>	2 - 7 bar
<b>Medium Pressure System (MPS)</b>	75 mbar - 2 bar
<b>Low Pressure System (LPS)</b>	Below 75 mbar

The principle underlying the DN charging methodology is that charges should reflect the average use of the network made by customers of a given size, rather than the actual use made by a particular customer. The methodology calculates the average cost of utilisation for each of the main pressure tiers of the distribution system. Combining this with the probability of loads within a consumption band using that pressure tier generates a tier charge for an average load within that band. The summation of these tier charges gives the total charge for a load within the consumption band to use the DN. Further information in respect of the tier costs and tier/sub-tier load probabilities to derive the average cost of utilisation per consumption band, and illustrative examples, are available on request.

The costs relating to each pressure tier were derived from the split of DN costs undertaken as part of [DNPC05](#), with further analysis to allocate the LDZ System costs across the pressure tiers and sub-tiers as part of [DNPC08](#). These costs are split 95:5 into capacity:commodity elements in line with the methodology established by [DNPC03](#).

### LDZ Customer Charges

The LDZ customer charge methodology is based on an analysis of the extent to which service pipe and emergency service costs vary with supply point size and apply only to Directly Connected Supply Points. This analysis is used to determine the allocation of the revenue recovery to LDZ customer charges from supply points grouped in broad load bands as follows:



- using ABC cost analysis, the customer cost pool is sub-divided into service pipes or emergency works;
- each cost pool is then divided among a number of AQ consumption bands based on weighted consumer numbers by consumption band;
- for each cost pool, an average cost per consumer is then calculated for each AQ consumption band by dividing by the number of consumers in that consumption band;
- a total average cost per consumer is then calculated for each consumption band by adding the unit costs of each pool; and
- using regression analysis, functions are developed that best fit the relationship between consumption size and total average cost per consumer.

For supply points with an AQ of less than 73,200 kWh, the customer charge is a capacity charge.

For supply points with an AQ between 73,200 and 732,000 kWh, 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 SOQ.

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

### **CSEP Charging**

In the calculation of the LDZ system charges, the commodity and capacity charges are based on the SOQ 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 particular 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 standard customer charge is not levied in respect of supply points within CSEPs. However, a CSEP administration charge is levied to reflect the administration costs related to servicing these loads. The methodology for setting this charge was established in 1996 and is based on the same methodology described below for setting Other Charges.

### **Other Charges**

There are other charges applied to services which are required by some shippers but not by all, for example special allocation arrangements. It is more equitable to levy specific cost reflective charges for these services on those shippers that require them. Income from these charges is included in the regulated transportation income.

The methodology used to calculate the appropriate level of these charges is based on an assessment of the direct costs of the ongoing activities involved in providing the services. The costs are forward looking and consider anticipated enhancements to the methods and systems used. A percentage uplift based on the methodology described in the Transporter's background paper "Charging for Specific Services - Cost Assignment Methodology" (May 1999) is added to the direct costs to cover support and sustaining costs. The latest level of the uplift was published in PD16, Section 5, (November 2002).

### Exit Capacity NTS (ECN) unit rate charging methodology

DNs set ECN unit rates to recover their ECN allowed revenue. The ECN allowed revenue is set during the most recent Annual Iteration Process and is made up of:

- ECN base allowance which is a forecast of NTS exit capacity costs, using latest published NTS ECN rates and network capacity bookings;
- ECN cost true up i.e., the difference between actual cost and base allowance in a prior year, which will differ for each DN, and which can have a significant impact on ECN Allowed Revenue and therefore the final ECN charges; and
- K ECN under or over recovery i.e., the difference between allowed and collected revenue in a prior year.

Below is an illustrative example, using hypothetical data, showing how DN ECN unit rates at each exit zone are calculated.

Scenario: A DN has an annual network capacity volume booking of 230,000 GWh split across 4 exit zones, leading to costs of £46m using the relevant NTS postage stamp unit rate. Allowed revenue for the year has been calculated as £45m and the latest demand snapshot from Xoserve shows shipper demand at 215,000 GWh.

	Network Capacity Annual Bookings (GWh)	Postage Stamp Price (p/kWh/d)	DN Cost per Exit Zone (£)	Allowed Revenue Apportioned	Shipper Demand snapshot (GWh)	Unit rate (p/kWh/d)
<b>Calculation</b>	Sum of 366 days bookings	NTS postage stamp PS rate	Volume v PS rate	Total x (Exit zone cost / total cost)	From Xoserve 'Snapshot' data	Allowed revenue / demand
<b>Exit Zone 1</b>	70,000	0.0200	14,000,000	13,695,652	63,000	<b>0.0217</b>
<b>Exit Zone 2</b>	20,000	0.0200	4,000,000	3,913,043	19,000	<b>0.0206</b>
<b>Exit Zone 3</b>	90,000	0.0200	18,000,000	17,608,696	87,000	<b>0.0202</b>
<b>Exit Zone 4</b>	50,000	0.0200	10,000,000	9,782,609	46,000	<b>0.0213</b>
	230,000		46,000,000	45,000,000	215,000	

Due to the differences by exit zone in the DN capacity bookings and the shipper demand profile, DN ECN rates will differ across exit zones. Shipper demand can differ to DN capacity

bookings for a number of reasons, including the timing of DN bookings, the demand snapshot and any user commitment in place that networks have to consider.

### **Charges to recover SoLR Revenue**

The SoLR charge is based on the total value of valid Last Resort Supplier Payment (LRSP) claims received, divided by the SOQ, converted to a pence per day rate calculated as follows:

Unit x number of days in that billing period x Rate / 100

Where the unit is equal to the *Sum of the Formula Year SOQ* (NB for Class 1 & 2 SMPs they do not have a FY SOQ, so the Rolling SOQ will be used in the sum).

## Appendix 2 – Examples

This section provides illustrative examples of how transportation prices are used to calculate a bill for different load bands. Charges produced by UK Link, an integrated set of computer systems that supports the UNC, are definitive for billing purposes and take precedence to any of the examples listed in this section.

For further details on the methodologies underlying the example charges please refer to the documents referenced within the Appendices 1 and 3 and UNC TPD Y Part B. All UNC documents and Modifications can be found on the Joint Office of Gas Transporters website:

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

### Example 1

A shipper has a daily metered customer in Cardiff, with an AQ of 20,000,000 kWh and an SOQ, booked directly by the shipper of 100,000 kWh per day.

	Charge Type	Calculation	Result
+	LDZ Capacity Invoice: LDZ Capacity (ZCA) See: Page 8 Basis: p / peak day kWh / day	<b>Annual Volume:</b> 366 days x 100,000 (SOQ)  <b>Unit Rate:</b> $2.0682 \times 100,000^{-0.2513}$  <b>Annual Charge:</b> Annual Volume x Unit Rate	36,600,000 kWh  0.1146 p / pd kWh / day  £41,943.60
+	LDZ Commodity Invoice: Commodity (ZCO) See: Page 8 Basis: p / kWh	<b>Annual Volume:</b> 20,000,000 kWh (AQ)  <b>Unit Rate:</b> $0.5808 \times 100,000 (SOQ)^{-0.2775}$  <b>Annual Charge:</b> Annual Volume x Unit Rate	20,000,000 kWh (AQ)  0.0238 p / kWh  £4,760.00
+	Customer (Capacity) Invoice: LDZ Capacity (CCA) See: Page 8 Basis: p / peak day kWh / day	<b>Annual Volume:</b> 366 days x 100,000 (SOQ)  <b>Unit Rate:</b> $0.1093 \times 100,000(SOQ)^{-0.2100}$  <b>Annual Charge:</b> Annual Volume x Unit Rate	36,600,000 kWh  0.0097 p / pd kWh / day  £3,550.20
+	Exit Capacity Charges Invoice: LDZ Capacity (ECN) See: Page 9, for WA2 value Basis: p / peak day kWh / day	<b>Annual Volume:</b> 366 days x 100,000 (SOQ)  <b>Unit Rate:</b> 0.0186 p / pd kWh / day  <b>Annual Charge:</b> Annual Volume x Unit Rate	36,600,000 kWh  0.0186 p / pd kWh / day  £6,807.60
+	Supplier of Last Resort Charges Invoice: LDZ Capacity (CAZ) See: Page 9 Basis: p / peak day kWh / day	<b>Annual Volume:</b> 366 days x 100,000 (SOQ)  <b>Unit rate:</b> 0.0000* pdkWh / day  <b>Annual Charge:</b> Annual Volume x Unit rate	36,600,000 kWh  0.0000p / pd kWh / day  £0.00
=		<b>Total Annual Network Charge</b>	<b>£57,061.40</b>

## Appendix 2

\*The LRSP industrial charge is zero for 2023/24 as all claims received related to domestic customers.

Unit Charge: Dividing by the annual load of 20,000,000 kWh gives a unit charge 0.2853 pence per kWh

### Example 2

A shipper has a non-prepayment domestic customer in the South West. Suppose the load has an AQ of 12,000 kWh per annum. This annual load places the end user in category SW:E2201BND. Load factor of 29.7%. The peak daily load (SOQ) is therefore  $12,000 \div (366 \times 0.297) = 110$  kWh.

	Charge Type	Calculation	Result
+	LDZ Capacity Invoice: LDZ Capacity (ZCA) See: Page 8 Basis: p / peak day kWh / day	<b>Annual Volume:</b> 366 days x 110 (SOQ) <b>Unit rate:</b> 0.2662 p / pdkWh <b>Annual Charge:</b> Annual Volume x Unit rate	40,260 kWh 0.2662 p / pdkWh £107.17
+	LDZ Commodity Invoice: Commodity (ZCO) See: Page 8 Basis: p / kWh	<b>Annual Volume:</b> 12,000 kWh (AQ) <b>Unit rate:</b> 0.0573 p / kWh <b>Annual Charge:</b> Annual Volume x Unit rate	12,000 kWh (AQ) 0.0573 p / kWh £6.88
+	Customer (Capacity) Invoice: Capacity (CCA) See: Page 8 Basis: p / kWh	<b>Annual Volume:</b> 366 days x 110 (SOQ) <b>Unit rate:</b> 0.1385 p / pdkWh <b>Annual Charge:</b> Annual Volume x Unit rate	40,260 kWh 0.1385 p / pdkWh £55.76
+	Exit Capacity Charges Invoice: LDZ Capacity (ECN) See: Page 9, for SW3 value Basis: p / peak day kWh / day	<b>Annual Volume:</b> 366 days x 110 (SOQ) <b>Unit rate:</b> 0.0163 pdkWh / day <b>Annual Charge:</b> Annual Volume x Unit rate	40,260 kWh 0.0163 pdkWh / day £6.56
+	Supplier of Last Resort Charges Invoice: LDZ Capacity (CAZ) See: Page 9 Basis: p / peak day kWh / day	<b>Annual Volume:</b> 366 days x 110 (SOQ) <b>Unit rate:</b> 0.0248 pdkWh / day <b>Annual Charge:</b> Annual Volume x Unit rate	40,260 kWh 0.0248 pdkWh / day £9.98
=		<b>Total Annual Network Charge</b>	<b>£186.36</b>

Unit Charge: Dividing by the annual load of 12,000 kWh gives a unit LDZ charge of 1.5530 pence per kWh.

## Appendix 2

## Example 3

Suppose that instead of supplying just one domestic customer in the South West (as in Example 2) the shipper supplies a connected system 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 12,000 kWh/yr.

Prevailing AQ (pre AQ)	100 houses × 12,000 (AQ) = 1,200,000 kWh
Maximum AQ (max AQ)	150 houses × 12,000 (AQ) = 1,800,000 kWh
Prevailing SOQ (pre SOQ)	1,200,000 ÷ (366 × 0.297) = 11,039 kWh
Maximum SOQ (max SOQ)	1,800,000 ÷ (366 × 0.297) = 16,559 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.

	Charge Type	Calculation	Calculation
+	CSEP Capacity Invoice: ADC (891) See: Page 8 Basis: p / peak day kWh / day	<b>Annual Volume:</b> 366 days × 11,039 (pre SOQ) <b>Unit Rate:</b> 2.0682 × 16,559 (max SOQ) <sup>-0.2513</sup> <b>Annual Charge:</b> Annual Volume × Unit rate	4,040,404.04 kWh 0.1800 p / pdkWh / day £7,272.49
+	CSEP Commodity Invoice: ADC (893) See: Page 8 Basis: p / kWh	<b>Annual Volume:</b> 1,200,000 kWh (pre AQ) <b>Unit rate:</b> 0.5808 × 16,559 (max SOQ) <sup>-0.2775</sup> <b>Annual Charge:</b> Annual Volume × Unit rate	1,200,000 kWh (pre AQ) 0.0392 p / kWh £470.40
+	CSEP Exit Capacity Charges Invoice: CSEP Capacity (ECN) See: Page 9 Basis: p / supply point / day	<b>Annual Volume:</b> 366 days × 11,039 (pre SOQ) <b>Unit rate:</b> 0.0163 pdkWh / day <b>Annual Charge:</b> Annual Volume × Unit rate	4,040,404.04 kWh 0.0163 pdkWh / day £658.56
+	Supplier of Last Resort Charges Invoice: Ancillary (ANC) See: Page 9 Basis: p / peak day kWh / day	<b>Annual Volume:</b> 366 days × 11,039 (pre SOQ) <b>Unit rate:</b> 0.0000* pdkWh / day <b>Annual Charge:</b> Annual Volume × Unit rate	4,040,404.04 kWh 0.0000 p / pd kWh / day £0.00
=		<b>Total Annual Network Charge</b>	<b>£ 8,401.46</b>

\*The LRSP industrial charge is zero for 2023/24 as all claims received related to domestic customers.

Unit Charge: Dividing by the annual load of 1,200,000 kWh gives a unit LDZ charge of 0.7001 pence per kWh.

## Appendix 3 – Estimate of Peak Daily Load for Non-Daily Metered Supply Points

Each year users will consume gas, which will vary by day, and our network is built to at least supply all our connections in a 1:20 winter day (not just an average winter). Therefore, charges are levied in consideration of:

- 1) The total volume of gas consumed i.e., AQ; and
- 2) The peak requirement i.e., SOQ.

For daily metered customers, the AQ and SOQ are known. Supply points with AQ greater than 58,600,000 kWh should be daily metered, and all interruptible supply points are daily metered. Firm supply points with an AQ above 73,200 kWh per annum may, at the shipper's request, be classified as daily metered.

For non-daily metered (NDM) customers, the peak daily load, or SOQ, is estimated using a set of End User Categories (EUCs) based on a given AQ. A handful of sites with an AQ greater than 58,600,000 remain NDM because of the difficulties installing the daily read equipment. In such cases EUC XX:E2209B is used.

### End User Categories

Each NDM supply point is allocated to an EUC and in each LDZ, each EUC has an associated Load Factor (LF). The EUC enables consumers to be defined into categories, the basis of which includes geography (LDZ), typical annual consumption (AQ) and, in the case of monthly read sites, winter consumption (WAR). The term LDZ is applied in the context of its usage with reference to the UNC daily balancing regime.

LFs are derived annually by the Demand Estimation Committee (DESC), a committee under UNC governance. The most relevant weather scenarios are modelled, together with the sensitivity to weather across a sample of meter points. This modelling provides a LF which is used to estimate the peak requirement, under a 1:20 for a given AQ.

For example, a domestic, non-prepayment user in South Wales with an AQ of 12,000 kWh is assessed to have a LF of 29.7% (for the 2023/24 charging year). The SOQ will therefore be 110kWh:

$$SOQ = \frac{AQ}{DAYS\ IN\ YEAR \times LF}$$

$$SOQ = \frac{12,000}{366 \times 29.7\%} = 110.394\ (3dp) = 110kWh\ (0dp)$$

A full list of the latest EUCs, WAR bands and LFs for WWU's LDZ are available electronically via the Xoserve secure internet site: <https://www.xoserve.com/systems/uk-link>.

### Six Monthly Read Sites

In the case of six monthly read sites, the supply point is allocated to an EUC on the basis of its AQ as per the example above.

## Monthly Read Sites

It is mandatory for supply points with an AQ greater than 293,000 kWh to be monthly read. However, at the shipper's request sites below this consumption may also be classified as monthly read.

EUCs with AQs of between 293,000 kWh and 58,600,000 kWh have a further four EUC subdivisions for WAR bands. These aim to assign supply points to an EUC which is more aligned to their within-year usage pattern by allocating a WAR band based on the ratio of winter consumption versus rolling AQ ideally using consumption data from 1st December to 31st March. The absence of valid winter consumption data or a ratio of greater than 1 will result in the generic B EUC being applied rather than a WAR Band EUC.

### Example

Using a supply point in Wales South LDZ with an annual consumption of 1,000,000 kWh assuming consumption December to March inclusive is 500,000 kWh; the winter: annual ratio will therefore equal  $500,000 \div 1,000,000 = 0.5$ . This site falls within WAR band W03 and the therefore EUC WS: E2204W03 where:

WS:	E22	04	W03
South Wales LDZ	Load factor effective for charging year 23/24	EUC band 04, between 732,000kWh and 2,196,000kWh	WAR band 03, for supply points with a winter consumption between 47.8% and 55.3% of their annual consumption.

For a site in this category, the load factor is 32.2% and the peak daily load and therefore its SOQ will be:

$$SOQ = \frac{AQ}{DAYS\ IN\ YEAR \times LF}$$

$$SOQ = \frac{1,000,000}{366 \times 32.2\%} = 8,485.219\ (3dp) = 8,485kWh\ (0dp)$$

## Consultation on EUCs

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 EUC definitions, NDM profiling parameters (ALPs and DAFs), and capacity estimation parameters (EUC LFs). The analysis is presented to users and the DESC is consulted before publication of the proposals. LFs are updated annually, effective from 1st October, therefore for charging purposes, the relevant LFs are those that prevailed in the December prior to the start of the regulatory year to which this statement relates.