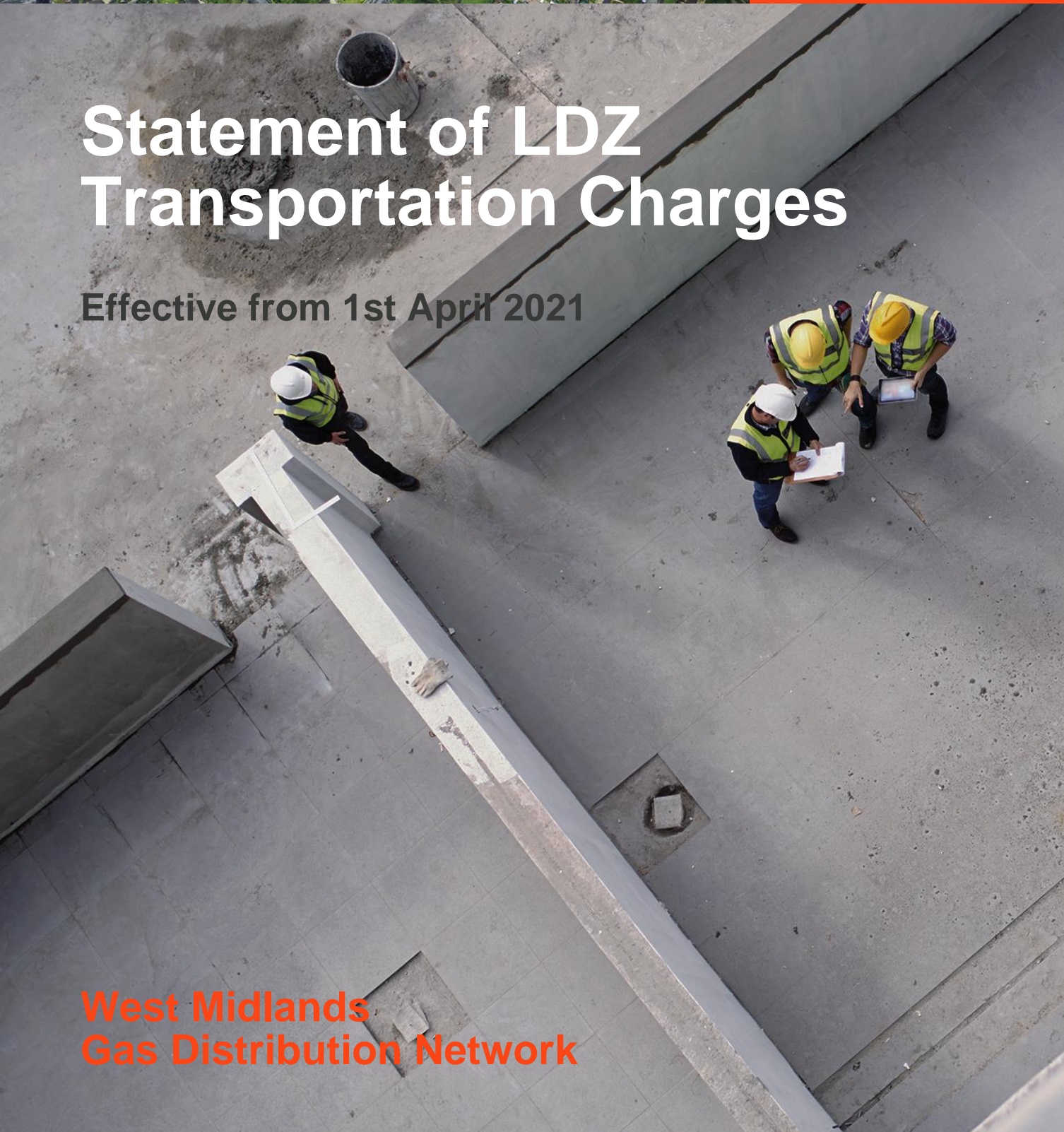




# Statement of LDZ Transportation Charges

Effective from 1st April 2021



**West Midlands  
Gas Distribution Network**

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# Introduction

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This publication sets out the LDZ transportation charges that apply from 1st April 2021 for the use of the West Midlands Gas Distribution Network, as required by Standard Special Condition A4 of the Gas Transporter Licence. This document does not override or vary any of the statutory, licence or Network Code obligations.

## **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 publication will be used in the calculation of charges within UK Link, which are definitive for billing purposes.

For further information and details on the methodologies underlying the LDZ transportation charges please refer to the documents referenced within the Appendices and the Uniform Network Code (UNC). These methodologies are set out in the UNC, within the Transportation Principal Document Section Y Part B, and are 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](http://www.gasgovernance.co.uk)

## **The Distribution Transportation Price Control Formula**

Distribution networks set prices with the aim of recovering the level of allowed revenue permitted by the gas and electricity market regulator Ofgem, calculated in accordance with our Gas Transporter Licence. Should more or less than the maximum permitted revenue be collected in any formula year, then a compensating adjustment is made in the subsequent year.

## **Forecast Allowed Revenue for the Regulatory Year 2021/22**

Maximum Allowed Revenue for the West Midlands Network for the forthcoming formula year 2021/22 is estimated at £338.3m. This is a decrease of 3.9% against 2020/21.

To bring charges into line with Maximum Allowed Revenue, and to take account of changes in aggregate supply point demand, transportation charges in the West Midlands network have decreased by 5.9% on average from 2020/21.

Current forecast under recovery (K) against maximum allowed revenue at 31st March 2021 for the regulatory year 2021/22 is 0.2m.

From 1st April 2021, the distribution transportation charges in respect of an example domestic load consuming 13,500 kWh per annum are on average estimated to be £126.24 per annum.

## **Charge Types**

Transportation is provided on a firm basis only. Forecast allowed revenue is collected through the charging of the following LDZ Transportation Charge types:

- LDZ System Charges
- LDZ Customer Charges
- LDZ Exit Capacity (ECN) Charges
- LDZ System Entry Commodity Charges / Credits
- Other Charges

Each charge type is described in more detail within this document.

## **Units**

- Commodity charges are expressed and billed in pence per kilowatt hour (kWh)
- Capacity charges are expressed and billed in pence per peak day kilowatt hour per day
- Fixed charges are expressed and billed in pence per day

## **Theft of Gas**

The licensing regime places incentives on Transporters, Shippers and Suppliers to take action in respect of suspected theft of gas. Certain costs associated with individual cases of theft are recovered through transportation charges with the Transporter remaining cash neutral in the process.

## **Invoicing**

Xoserve is the third party responsible for hosting and supporting the UK Link system and act as the billing agent for the gas networks, including Cadent. They produce and issue the invoices that are derived from the transportation charges shown within this publication. Each charge levied has an associated charge code and invoice type which has been included within this publication to clarify the link between charging and invoicing and to aid better understanding of bills.

# LDZ System Charges

## Standard LDZ System Charge

The standard LDZ system charges comprise of capacity and commodity charges, with the same rates and functions applicable for both Directly Connected Supply Points and Connected System Exit Points (CSEPs).

Where the 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.

## Directly Connected Supply Points and CSEPs

Charge codes, unit rates and charging functions used to calculate charges to Directly Connected Supply Points and CSEPs are set out in the tables below.

**Table 1: Charge Codes for Directly Connected Supply Points and CSEPs**

Directly Connected		CSEPs	
Invoice Type	Charge Code	Invoice Type	Charge Code
Capacity (CAZ)	ZCA	Capacity (CAZ)	891
Commodity (COM)	ZCO	Commodity (COM)	893

**Table 2: LDZ System Charges for Directly Connected Supply Points & CSEPs**

Charge Band (kWh per annum)	LDZ Capacity (pence per peak day kWh per day)	LDZ Commodity (pence per kWh)
0 to 73,199	0.1792	0.0312
73,200 to 731,999	0.1616	0.0280
732,000 and above	$1.9803 \times \text{SOQ}^{-0.2817}$	$0.3764 \times \text{SOQ}^{-0.2911}$
Subject to a minimum rate of	0.0176	0.0027
Minimum rate applies at SOQ of	19,123,623	23,235,316

## CSEP Charging

In the calculation of LDZ charges payable for CSEPs, the unit 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 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.

## 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.

**Table 3: Optional LDZ Charge Function**

Charge Code	Pence per peak day kWh per day
881	$902 \times [(SOQ)^{-0.834}] \times D + 772 \times (SOQ)^{-0.717}$

**Please Note:**

*SOQ = the Registered Supply Point Capacity, or other appropriate measure, in kWh per day.*

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

*^ Means “to the power of ...”*

## LDZ Customer Charges

LDZ Customer charges apply only to Directly Connected Supply Points.

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

For supply points with an AQ between 73,200 and 731,999 kWh per annum, the customer charge is made up of a fixed element that depends on the frequency of meter reading, plus a capacity charge based on the registered supply point capacity (SOQ).

For supply points with an AQ of 732,000 kWh per annum or more, the customer charge is based on a function related to the registered supply point capacity (SOQ). The charge codes, unit rates and charging functions used to calculate customer charges to Directly Connected Supply Points are set out in the table below.

**Table 4: LDZ Customer Capacity Charge Codes, Unit Rates and Charging Functions**

Charge Code	CCA
Charge Band (kWh per annum)	Unit Rate (pence per peak day kWh per day)
0 to 73,199	0.0836
73,200 to 731,999	0.0028
732,000 and above	$0.0641 \times \text{SOQ}^{-0.2100}$

**Table 5: LDZ Customer Fixed Charge Codes and Unit Rates**

Charge Code	CFI
Fixed charge	Unit Rate (pence per day)
Non-monthly read supply points	26.5211
Monthly read supply points	28.2389

## LDZ Exit Capacity NTS (ECN) Charges

In May 2020 Ofgem approved a new Postage Stamp methodology whereby the NTS Exit Capacity Prices for each offtake would be the same barring any discounts for certain users such as storage. The NTS Exit Capacity prices published by National Grid have been factored into the ECN Price change. Distribution Networks (DNs) set ECN unit rates to recover their ECN allowed revenue. The ECN allowed revenue is set during the 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 network and which can have a significant and material impact on allowed ECN revenue and therefore the final ECN charge; and
- K ECN under or over recovery i.e. the difference between allowed and collected revenue in a prior year

When setting ECN rates, DNs seek to recover their allowed revenue as calculated above, rather than solely costs for the year. For this reason, the ECN rate charged by DNs will not match the NTS postage stamp unit rate in the same year.

To calculate the unit rates for each exit zone within a network the level of NTS cost per exit zone is used to apportion the total ECN allowed revenue across each exit zone. Once the revenue that needs to be recovered from each exit zone is determined, the latest demand snapshot of SOQs is used to calculate a unit rate per exit zone.

Below is an illustrative example showing how DN ECN unit rates at each exit zone are calculated. N.b. no actual data has been used.

Scenario: A Distribution Network 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.

Description	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 365 days bookings	NTS postage stamp PS rate	Volume v PS rate	Total x (Exit zone cost / total cost)	From Xoserve 'Snapshot' data	<b>Allowed revenue / demand</b>
<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 Distribution networks 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 v the demand snapshot and any user commitment in place that networks have to consider.

National Grid Transmission will invoice gas Distribution Networks (DNs) for booked NTS Exit Capacity and DN's will invoice Shippers. The ECN charging methodology is covered in Section Y Part B (9) of the UNC. ECN charges are designed to recover the annual amount of exit capacity cost as defined in the Gas Transporter Licence (inclusive of lagged adjustments between allowed and actual costs) and adjustments for any under or over recovery of ECN revenue from the prior year.

The charge codes and unit rates used to calculate ECN charges for Directly Connected Supply Points and CSEPs are set out in the table below. As per the LDZ System Charge, the same unit rates apply for both Directly Connected Supply Points and CSEPs.

**Table 6: LDZ Exit Capacity NTS (ECN) Charge Codes and Unit Rates**

Invoice Type	Charge Code
Directly Connected	ECN
CSEPS	C04

Exit Zone	Unit Rate (pence per peak day kWh per day)
WM1	0.0180
WM2	0.0180
WM3	0.0180

## DN System Entry Commodity Charge

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The DN System Entry Commodity Charge came into effect on the 1st April 2013 and reflects the cost of receiving gas directly into the distribution network through a LDZ System Entry Point rather than through the NTS.

The rate associated with the LDZ System Entry Commodity charge is calculated on a site by site basis and may be positive resulting in a charge, or negative resulting in a credit.

The level of charge / credit will vary according to the amount of gas entering the network system, the pressure tier at which the gas enters the system and the operational costs associated with the entry point.

The charge / credit is made up of the following three elements and is an adjustment to the full transportation charge:

- **Operational Costs:** the Shipper will be charged for operational costs incurred by the Distribution Network in maintaining the entry point connection to the system
- **Exit Capacity Credit:** the Shipper will receive a credit in respect of exit capacity charges as the gas has not entered the Distribution Network via the National Transmission System in the traditional way.
- **System Credit:** the Shipper will receive a level of credit depending on the pressure tier at which the entry point connects. This is to reflect lower overall system usage than gas that enters the network via the National Transmission System. Sites connected at the Local Transmission Network (LTS) receive no credit.

The table on the following page provides details on LDZ System Entry unit rates for all sites with accepted connection offers that are expected to be in operation during 2018/19. As and when connection offers are accepted for additional sites expected to come into operation during the year, unit prices will be notified under the 'Notice of Charges' section of the Joint Office of Gas Transporters website.

**Table 7: LDZ System Entry Unit Rates**

Charge Code	LEC	
DN Entry Point (Site Name)	Charge / Credit	Unit Rate (pence per kWh)
Barnes Farm	CREDIT	-0.0123
Coleshill	CREDIT	-0.0556
Grindley House Farm	CREDIT	-0.0576
Hampton Bishop	CREDIT	-0.0072
Highwood Farm, Brinklow	CREDIT	-0.0072
Lower Drayton Farm	CREDIT	-0.0794
Minworth 2	CREDIT	-0.0842
Minworth Sewage Works	CREDIT	-0.0120
Roundhill	CREDIT	-0.0830
Strongford	CREDIT	-0.0682
Sutton Lodge Farm	CREDIT	-0.0804
Finham	CREDIT	-0.0839

## Charge Types and Invoice Mapping

The following list presents the core invoice types and charge codes reflected in this document, which are billed by Xoserve on our behalf.

A full list of current invoice types and charge codes is available through the Xoserve Shared Area.

**Table 9: Invoice Types and Charge Codes**

	Invoice Type	Charge Codes
<b>LDZ Capacity</b>		
Supply Point LDZ Capacity	CAZ	ZCA
CSEP LDZ Capacity	CAZ	891
Unique Sites LDZ Capacity Charge	CAZ	871
LDZ 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>Other Charges</b>		
LDZ Shared Supply Admin Charge	CAZ	883
CSEP Admin Charge	CAZ	894

## Examples

This section provides illustrative examples of how transportation charges are used to calculate a bill for different load bands. However, as these calculations are subject to rounding they should only be regarded as purely illustrative. The commodity charges in these examples are also based on a supply point AQ, but the actual charges would vary depending on the actual consumption of the supply point for that period.

Charges produced by UK Link are definitive for charging purposes and take precedence to any examples listed within this section.

### Example 1

A Shipper has a daily metered customer 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		
<b>LDZ Capacity</b>		<b>LDZ Capacity</b>		
Invoice:	LDZ Capacity (ZCA)	Volume:	365 days x 100,000 (SOQ)	36,500,000
See:	Table 2	Unit Rate:	$1.9803 \times 100,000 \text{ (SOQ)}^{-0.2817}$	0.0773
Basis:	pence / peak day kWh / day	Annual Charge:	Volume x Unit Rate	£28,214.50
+				
<b>LDZ Commodity</b>		<b>LDZ Commodity</b>		
Invoice:	LDZ Commodity (ZCO)	Volume:	20,000,000 (AQ)	20,000,000
See:	Table 2	Unit Rate:	$0.3764 \times 100,000 \text{ (SOQ)}^{-0.2911}$	0.0132
Basis:	pence / kWh	Annual Charge:	Volume x Unit Rate	£2,640.00
+				
<b>LDZ Customer (Capacity)</b>		<b>LDZ Customer (Capacity)</b>		
Invoice:	LDZ Capacity (CCA)	Volume:	365 days x 100,000 (SOQ)	36,500,000
See:	Table 4	Unit Rate:	$0.0641 \times 100,000 \text{ (SOQ)}^{-0.2100}$	0.0057
Basis:	pence / peak day kWh / day	Annual Charge:	Volume x Unit Rate	£2,080.50
+				
<b>LDZ Exit Capacity</b>		<b>LDZ Exit Capacity</b>		
Invoice:	Exit Capacity (ECN)	Volume:	365 days x 100,000 (SOQ)	36,500,000
See:	Table 6	Unit Rate:	0.018 pence / peak day kWh / day	0.0180
Basis:	pence / peak day kWh / day	Annual Charge:	Volume x Unit Rate	£6,570.00
=				
<b>Total Annual Charge</b>		<b>£39,505.00</b>		

## Example 2

A Shipper has a domestic customer and the load has an AQ of 13,500 kWh per annum. For this example, this annual load places the end user in category WM:E2001BND for a non pre payment domestic customer. The load factor for such a site is 29.6%. The peak daily load (SOQ) is therefore  $13,500 \div (365 \times 0.296) = 125$  kWh.

PROCESS			CALCULATIONS		
<b>LDZ Capacity</b>		→	<b>LDZ Capacity</b>		
Invoice:	LDZ Capacity (ZCA)		Volume:	$(13500 \text{ (AQ)} / 365 \text{ days} / 29.6\%) \times 365$	45,625
See:	Table 2		Unit Rate:	0.1792 pence / peak day kWh / day	0.1792
Basis:	pence / peak day kWh / day		Annual Charge:	Volume x Unit Rate	£81.76
<b>+</b>					
<b>LDZ Commodity</b>		→	<b>LDZ Commodity</b>		
Invoice:	LDZ Commodity (ZCO)		Volume:	13500 (AQ)	13,500
See:	Table 2		Unit Rate:	0.0312 pence per kWh	0.0312
Basis:	pence / kWh		Annual Charge:	Volume x Unit Rate	£4.21
<b>+</b>					
<b>LDZ Customer (Capacity)</b>		→	<b>LDZ Customer (Capacity)</b>		
Invoice:	LDZ Capacity (CCA)		Volume:	$(13500 \text{ (AQ)} / 365 \text{ days} / 29.6\%) \times 365$	45,625
See:	Table 4		Unit Rate:	0.0836 pence / peak day kWh / day	0.0836
Basis:	pence / peak day kWh / day		Annual Charge:	Volume x Unit Rate	£38.14
<b>+</b>					
<b>LDZ Exit Capacity</b>		→	<b>LDZ Exit Capacity</b>		
Invoice:	Exit Capacity (ECN)		Volume:	$(13500 \text{ (AQ)} / 365 \text{ days} / 29.6\%) \times 365$	45,625
See:	Table 6		Unit Rate:	0.0180	0.0180
Basis:	pence / peak day kWh / day		Annual Charge:	Volume x Unit Rate	£8.21
<b>=</b>					
<b>Total Annual Charge</b>			<b>£132.32</b>		

### Example 3

Suppose that instead of supplying just one domestic customer (as in Example 2) the Shipper supplies a connected system 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 15,000 kWh per annum.

Annual Quantity (AQ) = Number of premises x AQ per premise	Prevailing AQ (pre AQ)	100 houses x 15,000 (AQ) = 1,500,000 kWh
	Maximum AQ (max AQ)	150 houses x 15,000 (AQ) = 2,250,000 kWh
Supply Point Offtake Quantity (SOQ) = AQ ÷ (365 x Load Factor)	Prevailing SOQ (pre SOQ)	1,500,000 ÷ (365 x 0.296) = 13,884 kWh
	Maximum SOQ (max SOQ)	2,250,000 ÷ (365 x 0.296) = 20,826 kWh

**Note:** 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		
<b>LDZ Capacity</b>		<b>LDZ Capacity</b>		
Invoice:	LDZ Capacity (891)	Volume:	13884 (pre SOQ) x 365 days	5,067,660
See:	Table 2	Unit Rate:	1.9803 x 20826 (max SOQ) x -0.2817	0.1203
Basis:	pence / peak day kWh / day	Annual Charge:	Volume x Unit Rate	£6,096.39
+				
<b>LDZ Commodity</b>		<b>LDZ Commodity</b>		
Invoice:	LDZ Commodity (893)	Volume:	1500000 (AQ)	1,500,000
See:	Table 2	Unit Rate:	0.3764 x 20826 (max SOQ) x -0.2911	0.0208
Basis:	pence / kWh	Annual Charge:	Volume x Unit Rate	£312.00
+				
<b>LDZ Exit Capacity</b>		<b>LDZ Exit Capacity</b>		
Invoice:	Exit Capacity (C04)	Volume:	13884 (pre SOQ) x 365 days	5,067,660
See:	Table 6	Unit Rate:	0.0180	0.0180
Basis:	pence / peak day kWh / day	Annual Charge:	Volume x Unit Rate	£912.18
=				
<b>Total Annual Charge</b>		<b>£7,320.57</b>		

## Contact Details

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If you have any questions in relation to this document, please contact a member of the Revenue & Pricing team.

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## Appendix A: Estimation of Peak Daily Load for Non-Daily Metered Supply Points

For non-daily metered (NDM) supply points, the peak daily load is estimated using a set of End User Categories (EUCs). Each NDM supply point is allocated to an EUC. In each LDZ, each EUC has an associated load factor.

A full list of the latest End User Categories, WAR bands and Load Factors for the West Midland network are available electronically via the Xoserve secure internet site: <http://www.xoserve.com/index.php/our-systems/extranet-secured-sites/>.

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 winter: annual 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 an EUC simply on the basis of its annual quantity. The peak load for an NDM supply point may then be calculated as:

$$\frac{AQ \times 100}{366 \times \text{Load Factor}}$$

### Example

For a supply point in West Midland (WM) LDZ with an annual consumption of 1,000 MWh per annum:

Assume consumption December to March inclusive is 440 MWh.

Winter: annual ratio =  $440 \div 1000 = 0.44$

For a site with an annual consumption of 1,000 MWh (EUC Code WM:E2004B), a ratio of 0.44 falls within winter: annual ratio band W02 and the site is thus within End User Category WM:E2004W02.

For a site in this category, the load factor is 43.8% and the peak daily load is therefore:

$$\frac{1000 \times 100}{365 \times 43.8\%} = 6.26 \text{ Mwh}$$

If the required meter reading information is not available to calculate the winter: annual ratio, the supply point is allocated to an EUC simply on the basis of its annual quantity, in this case WM:E2004B. For a site in this category, the load factor is 35.1% and the peak daily load is therefore:

$$\frac{1000 \times 100}{365 \times 35.1\%} = 7.81 \text{ Mwh}$$

## **Six Monthly Read Sites**

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

## **Daily Metered Supply Points**

The SOQ of daily metered sites is known and hence no load factor is required.

Supply points with an AQ above 73.2 MWh pa may, at the Shipper's request, be classified as daily metered.

## **Consultation on End User Categories**

Section H of the Network Code 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 the Demand Estimation Sub-Committee (a sub-committee of the Network Code Committee) is consulted before publication of the proposals.

## Appendix B: Application of Transportation Charging Methodology

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Standard Special Condition A4 of the Transporter's Gas Transporter (GT) Licence requires the Transporter to establish a charging methodology and to set out the application of the methodology, showing the methods and principles on which the transportation charges are based. The present charging methodology was introduced in 1994 and has been modified from time to time in accordance with the GT Licence.

### Price Control Formulae

The Maximum Allowed Revenue under the transportation controls is determined by a number of factors including:

- The Base Revenue determined through the Final Determination for RII02-GD2 by Ofgem.
- The indexation factor - under the distribution formula, allowed revenue is adjusted each year by a factor equal to the forecast rate of inflation, with a subsequent true-up for actual inflation, measured by reference to the Consumer Price Index.
- Legacy Adjustments from RII0-1 which include, but not limited to pass through and MODt
- Any under or over-recovery, known as K correction factor, now in RII0-2 is lagged by one year, whereas in RII0-1 it was lagged by 2 years. The Allowed Revenue in 21/22 has both K correction factors from 19/20 and 20/21 applied to it.
- The "K" correction factor is necessary because the level of charges set under the control depends on forecasts of some of the above elements. Outturn will inevitably differ from forecast, thus giving rise to variances between the amount of revenue generated (on an accruals basis) and that allowed under the control. The K factor enables correction for these variances by adjusting either upwards or downwards the maximum level of revenue allowed in subsequent formula years (taking interest into account).

### Objectives of the Charging Methodology

The transportation charging methodology has to comply with objectives set out in the Licence under Standard Special Condition A5. These are that:

- Compliance with the charging methodology results in charges which reflect the cost incurred by the transporter in its transportation business
- Facilitates competition between gas shippers and between gas suppliers
- Takes account of developments in the transportation business

In addition to these Licence objectives, Cadent has its own objectives for the charging regime. These are that the transportation charging methodology should:

- Promote efficient use of the transportation system
- Generate stable charges
- Be easy to understand and implement

Before the Transporter makes any changes to the methodology, it would raise a UNC modification proposal in line with the UNC procedures and consult with the industry in accordance with Standard Special Condition A5 of the Licence. Ofgem has the right to veto any proposed changes to the methodology.

### Structure of LDZ System and Customer Charges

The LDZ charges are split between system related activities and customer related activities. While total LDZ revenue is determined by the relevant price control, the share of this revenue to be recovered from the LDZ system charges and the LDZ customer charges respectively is based on the relative cost of each area of activity. The current split is set out in the below:

**Table B.1 Split of LDZ System and Customer charges (%)**

LDZ System	LDZ Customer	Total
74.0%	26.0%	100%

The Gas Distribution networks are in the process of reviewing the above percentage splits to ensure they are still broadly reflective of the costs now and moving into RIIO-GD2.

Having established by the above methods the target revenue to be derived from each main category of charge, the next step is to structure the charges within each of these charge categories across the load bands, such that they reasonably reflect the costs imposed on the system by different size loads. The methodology used to do this is described in the appropriate sections below.

## LDZ System Charging Methodology

The Standard LDZ System charges effective from 1st April 2013 are based on the methodology fully described in consultation paper DNPC08 - Review of Standard LDZ System Charges. This methodology is described below and was based on an analysis of Network costs and usage and a 95:5 capacity/commodity split.

The distribution network contains a series of pipe networks split into four main pressure tiers:

**Table B.2 LDZ Pressure Tiers**

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

## Determination of Costs

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