

# National Grid Metering Charges From 1st April 2010



# Contents

ord	1
Introduction	2
Charges from April 2010 Introduction Annual Charges Transactional Charges Transfer of in-situ ancillary equipment	<b>3</b> 3 4 6 8
Metering Charging Methodology	9
Cost Components Scaling of Charges Transactional Charges DM Daily Meter Reading	11 12 12 12
	Introduction Charges from April 2010 Introduction Annual Charges Transactional Charges Transfer of in-situ ancillary equipment Metering Charging Methodology Cost Components Scaling of Charges Transactional Charges DM Daily Meter Reading



## Foreword

This booklet sets out the metering charges that National Grid will apply for services provided under the Network Code and National Grid's Metering Contracts<sup>1</sup> from 1st April 2010. It also sets out the methodology used to derive the charges, as required by National Grid's Gas Transporters Licence in respect of its retained networks (RDNs).

These metering charges will apply to National Grid meters within RDNs and under the Network Metering Equipment Agreement (NMEA) to National Grid meters in the independent networks (IDNs).

The level of National Grid's metering charges is regulated by a price control set by Ofgem, the gas industry regulator. To achieve price control, Ofgem has set tariff caps for four key metering services. National Grid's charges for these services must not exceed the tariff caps, which are adjusted each year by inflation (minus 1% for 2010/11). National Grid has reduced these four charges to the new level of the tariff caps. National Grid has also adjusted its other annual meter rental charges by inflation.

As in previous years, National Grid has taken the opportunity to adjust its Transaction Charges for meter works. Operational efficiencies gained through the drive for continuous improvements and the continued focus by National Grid Metering to manage costs effectively has helped to realise an overall reduction for transactional charges in the region of 3%, however, there is a mix of increases and reductions for individual charges compared to 2009/10 charges. The transaction charge for domestic meter exchange has also been reduced by 1% to the level of the regulated tariff cap.

National Grid would welcome your views on any aspect of its metering service, its charges or the contents of this statement. Please send your comments to Stewart Love via e-mail to **metcom@uk.ngrid.com**. The latest version of this publication is available from National Grid's Metering website (http://www.nationalgrid.com/uk/metering/).



#### (1) Agreement and General Conditions of Contract for;

The Provision and Maintenance of Metering Equipment Contract, Transactional Meter Works not exceeding 7 bar, Above 7 bar Transactional Meter Works, Adversarial Meterworks, Rainbow System User Agreement and Network Metering Equipment Agreement (NMEA).

# 1. Introduction

National Grid provides gas transportation, metering and daily meter reading services throughout Great Britain for the companies that supply domestic, industrial and commercial consumers.

National Grid is an Ofgem Approved Meter Installer (OAMI) and provides a range of meter provision, installation and maintenance services. For further details of these services please contact the National Grid Metering commercial team via e-mail to **metcom@uk.ngrid.com**.

This publication sets out National Grid's charges from 1st April 2010 for its metering services provided under the Provision and Maintenance of Metering Equipment Contract, Transactional Meter Works not exceeding 7 bar Contract, Adversarial Meterworks Contract, Rainbow System User Agreement, Network Code and the Network Metering Equipment Agreement (NMEA).

The latest version of this publication is available from National Grid's Metering website (http://www.nationalgrid.com/uk/metering/).

National Grid offers contracts with alternative terms and conditions for domestic size meter<sup>2</sup> rental. Details of these contracts, including the relevant charges, are available from Stewart Love via e-mail to **metcom@uk.ngrid.com** 



<sup>2</sup> Where the meter capacity is less than 11 standard cubic meters per hour (scmh).

# 2. Charges from 1st April 2010

#### 2.1 Introduction

This section sets out the charges for National Grid's Network Code and National Grid's Metering Contracts<sup>3</sup>. This document does not override or vary any of the statutory, licence or Network Code or other contractual obligations upon National Grid. For more information on these charges, please contact Stewart Love via e-mail to **metcom@uk.ngrid.com**.

#### 2.1.1 Annual and Transactional Charges

Annual charges apply in respect of all metering equipment provided and maintained by National Grid on a per meter basis.

Annualised installation charges also apply on a per meter basis in respect of any metering equipment installed by National Grid before:

•1st October 2000 in respect of supply points consuming up to 73,200 kWh per annum

•1st April 2001 in respect of supply points consuming 73,200 kWh per annum and above.

Annualised installation charges do not apply in respect of metering equipment installed after these dates.

Transactional (one-off) charges are made in respect of specific meter work activities carried out by National Grid, as set out in section 2.3, including the installation of metering equipment.

All charges are shown exclusive of VAT.

#### 2.1.2 Domestic Meter Installations

Annual charges for provision, installation (where applicable) and maintenance of domestic size meters<sup>4</sup> vary with payment mechanism; that is whether the meter is a credit or a prepayment meter. This approach reflects some of the additional costs of providing prepayment metering services compared to credit meters.

#### 2.1.3 Larger Meter Installations

Annual charges for the provision, installation and maintenance of industrial and commercial size meters<sup>5</sup> vary with the method of flow measurement (diaphragm, rotary or turbine). Separate charges apply for provision, installation and maintenance of metering installations connected to high-pressure systems<sup>6</sup>.

Annual charges for meter provision, installation and maintenance also vary with the meter's 'badged capacity' or Q<sub>max</sub><sup>7</sup>, since meter capacity is the main cost driver for a given meter type. Separate charges apply for the provision, installation and maintenance of daily read equipment (dataloggers) and volume converters (correctors).

#### 2.1.4 Invoicing

National Grid Metering produces and issues the invoices derived from the charges shown in this publication. If a gas supplier has an invoice query, this should normally be submitted via SAP Rainbow using the relevant Transaction Type Reason Code as detailed in the Query Submission section of the MAM Manual.

<sup>3</sup> Agreement and General Conditions of Contract for:

The Provision and Maintenance of Metering Equipment Contract, Transactional Meter Works not exceeding 7 bar, Above 7 bar Transactional Meter Works, Adversarial Meterworks, Rainbow System User Agreement and Network Metering Equipment Agreement (NMEA).

<sup>4</sup> Where the meter capacity is less than 11 standard cubic meters per hour (scmh).

- <sup>5</sup> Where the meter capacity is greater than or equal to 11scmh.
- <sup>6</sup> Operating at pressures greater than 7 barg.

<sup>7</sup> An indication of the upper limit of a measuring device's accuracy envelope.

## 2.2 Annual Charges

The tables in this section show the annual charges, expressed both in  $\mathfrak{L}$  sterling per annum for general purposes, and in pence per day for billing purposes.

#### 2.2.1 Low, Medium and Intermediate Pressure Metering Installations (<7 barg)

#### **Domestic Sized Meters** <sup>(1)</sup>

	Credit	meter	Prepaym	ent meter
	Pence per day £ per annum		Pence per day	£ per annum
Provision	2.3671	£8.64	1.9232	£7.02
Installation	1.5425	£5.63	1.5425	£5.63
Maintenance	0.0849	£0.31	5.8548	£21.37
Total	3.9945	£14.58	9.3205	£34.02

(1) Meter capacity less than 11 scmh

#### **Larger Diaphragm Meters**

Charge Band	DIA 01	DIA 02	DIA 03	DIA 04	DIA 05	DIA 06
Model	U16	U25	U40	U65	U100	U160
Capacity (scmh)	≥ <b>11 &lt;21</b>	≥ <b>21 &lt;29</b>	≥ <b>29 &lt;</b> 51	≥ <b>51 &lt;79</b>	≥ <b>79 &lt;121</b>	≥ <b>121</b>
£ per annum						
Provision	£18.67	£38.84	£55.41	£100.17	£173.34	£196.16
Installation	£13.29	£16.03	£26.36	£58.05	£71.73	£80.88
Maintenance	£2.92	£3.74	£5.70	£9.96	£23.15	£49.69
Total	£34.88	£58.61	£87.47	£168.18	£268.22	£326.73
Pence per day						
Provision	5.1151	10.6410	15.1809	27.4438	47.4903	53.7425
Installation	3.6411	4.3918	7.2219	15.9041	19.6521	22.1589
Maintenance	0.8000	1.0247	1.5616	2.7288	6.3425	13.6137
Total	9.5562	16.0575	23.9644	46.0767	73.4849	89.5151

#### **Rotary Meters**

Charge Band	ROT 01	ROT 02	<b>ROT 03</b>	ROT 04	ROT 05	ROT 06
Capacity (scmh)	<28	≥ <b>28 &lt;57</b>	<b>≥57 &lt;113</b>	≥ <b>113 &lt;170</b>	≥ <b>170 &lt;226</b>	≥ <b>226 &lt;396</b>
£ per annum						
Provision	£153.40	£186.77	£232.09	£275.00	£322.19	£406.35
Installation	£55.19	£69.21	£126.58	£163.86	£200.67	£323.80
Maintenance	£173.55	£174.72	£226.83	£228.48	£229.65	£231.67
Total	£382.14	£430.70	£585.50	£667.34	£752.51	£961.82
Pence per day						
Provision	42.0275	51.1699	63.5863	75.3424	88.2712	111.3288
Installation	15.1205	18.9616	34.6795	44.8932	54.9781	88.7123
Maintenance	47.5479	47.8685	62.1452	62.5973	62.9178	63.4712
Total	104.6959	118.0000	160.4110	182.8329	206.1671	263.5123

Charge Band	<b>ROT 07</b>	<b>ROT 08</b>	ROT 09	<b>ROT 10</b>	ROT 11
Capacity (scmh)	<b>≥396 &lt;509</b>	<b>≥509 &lt;792</b>	≥ <b>792 &lt;1,358</b>	≥ <b>1,358 &lt;1,810</b>	≥ <b>1,810</b>
£ per annum					
Provision	£488.06	£530.60	£591.77	£1,163.82	£1,385.64
Installation	£412.84	£455.96	£581.10	£663.05	£1,011.92
Maintenance	£284.55	£287.16	£294.44	£1,113.59	£1,118.68
Total	£1,185.45	£1,273.72	£1,467.31	£2,940.46	£3,516.24
Pence per day					
Provision	133.7151	145.3699	162.1287	318.8548	379.6273
Installation	113.1068	124.9205	159.2055	181.6575	277.2384
Maintenance	77.9589	78.6740	80.6685	305.0932	306.4877
Total	324.7808	348.9644	402.0027	805.6055	963.3534

#### **Turbine Meters**

Charge Band	<b>TUR 01</b>	<b>TUR 02</b>	<b>TUR 03</b>	<b>TUR 04</b>	<b>TUR 05</b>
Capacity (scmh)	<283	≥ <b>283 &lt;509</b>	≥ <b>509 &lt;792</b>	≥ <b>792 &lt;1,216</b>	≥1,216 <1,952
£ per annum					
Provision	£579.60	£684.18	£740.23	£884.06	£944.75
Installation	£312.32	£369.85	£478.09	£588.62	£701.35
Maintenance	£708.15	£741.68	£768.87	£802.60	£836.54
Total	£1,600.07	£1,795.71	£1,987.19	£2,275.28	£2,482.64
Pence per day					
Provision	158.7945	187.4465	202.8027	242.2082	258.8356
Installation	85.5671	101.3288	130.9836	161.2658	192.1507
Maintenance	194.0137	203.2000	210.6493	219.8904	229.1890
Total	438.3753	491.9753	544.4356	623.3644	680.1753

Charge Band	<b>TUR 06</b>	TUR 07	TUR 08	TUR 09
Capacity (scmh)	≥ <b>1,952 &lt;3027</b>	<b>≥3,027 &lt;4,894</b>	≥ <b>4,894 &lt;8,119</b>	≥ <b>8,119</b>
£ per annum				
Provision	£1,418.55	£1,895.82	£1,911.86	£1,999.14
Installation	£1,072.24	£1,380.16	£1,388.10	£1,574.25
Maintenance	£875.94	£908.69	£939.48	£964.20
Total	£3,366.73	£4,184.67	£4,239.44	£4,537.59
Pence per day				
Provision	388.6438	519.4027	523.7972	547.7095
Installation	293.7644	378.1260	380.3014	431.3014
Maintenance	239.9836	248.9562	257.3918	264.1644
Total	922.3918	1,146.4849	1,161.4904	1,243.1753

#### 2.2.2 High Pressure Metering Installations (>7 barg)

Charge Band	HP 01	HP 02	HP 03	HP 04	HP 05	HP 06
Capacity (scmh)	<10,192	≥ <b>10,192 &lt;14,906</b>	≥ <b>14,906 &lt;25,878</b>	≥ <b>25,878 &lt;36,866</b>	≥36,866 <63,524	<b>≥63,524</b>
£ per annum						
Provision	£5,994.90	£6,490.20	£7,486.61	£8,263.73	£9,253.65	£12,487.13
Installation	£3,671.16	£3,998.53	£4,743.97	£5,006.60	£5,661.73	£7,806.29
Maintenance	£9,690.24	£10,281.78	£11,628.84	£12,103.43	£13,287.27	£17,162.59
Total	£19,356.30	£20,770.51	£23,859.42	£25,373.76	£28,202.65	£37,456.01
Pence per day						
Provision	1,642.4383	1,778.1370	2,051.1260	2,264.0357	2,535.2466	3,421.1314
Installation	1,005.7973	1,095.4877	1,299.7178	1,371.6712	1,551.1589	2,138.7096
Maintenance	2,654.8603	2,816.9260	3,185.9836	3,316.0082	3,640.3479	4,702.0795
Total	5,303.0959	5,690.5507	6,536.8274	6,951.7151	7,726.7534	10,261.9205

#### 2.2.3 Volume Converters

COR XX	COR XX
Pence per day	£ per annum
35.2466	£128.65
14.2082	£51.86
32.0274	£116.90
81.4822	£297.41
	COR XX Pence per day 35.2466 14.2082 32.0274 81.4822

#### 2.2.4 Dataloggers

<b>Rental Charge</b>	Pence per day	£ per annum
Provision	9.7534	£35.60
Installation	43.5233	£158.86
Maintenance	65.8356	£240.30
Total	119.1123	£434.76

Datalogger charges apply to all dataloggers at daily metered supply points, as defined by National Grid's Network Code. Note that this rental charge excludes the daily meter reading charge (above right).

	Pence per day	£ per annum
Daily Meter Reading Charge	120.7863	£440.87

For clarification the daily metering reading charge is set at the tariff cap of £440.87 per annum as at 1st April 2010 and is in addition to the annual rental charge.

#### 2.2.5 SAP Rainbow system access

On 12th July 2004 National Grid allocated 1,000 "free" web accesses to Suppliers that were expected to take responsibility for meter points on the National Grid system. From 12th July 2005 these suppliers have been charged the annual maintenance and administration charge shown in the table below. In addition there are a limited number of new accesses available to Suppliers and the initial access charges are also shown in the table below.

	Initial access charge (£)	Annual maintenance and administration charge (£)
Read / write access	£354.14	£70.83
Read only access	£177.08	£41.32

## **2.3 Transactional Charges**

Any work downstream of the outlet of the meter is excluded unless specifically mentioned.

In all cases, service pipe installation, alteration and disconnection will be subject to additional charges.

#### **Domestic size meters**

The following charges relate to domestic-size meter installations, i.e. where the meter capacity is less than 11 standard cubic metres per hour (scmh).

#### **Installation of Domestic Meters**

Title	Description	Charge
Install	Includes time and materials (pressure	£72.57
Domestic	controlling equipment, flexible	
Credit	connector, etc) required to install a	
Meter	domestic credit meter. Excludes the	
	cost of the meter itself.	
Install	Includes time and materials (pressure	£81.12
Domestic	controlling equipment, flexible	
Prepayment	connector, etc) required to install a	
Meter	prepayment meter. Excludes the cost	
	commissioning of the meter module in	
	current (TGB) format and the use of a	
	blank gas card where no supplier gas	
	card is on site.	

#### Customer requested domestic meter exchange

Title	Description	Charge
Customer requested exchange	Includes time and materials required to exchange a credit meter to prepayment or a prepayment meter to credit or a like for like exchange i.e. exchange credit for credit including an exchange to a semi concealed credit meter or prepayment for prepayment. Excludes the cost of the meter itself. Includes up to 1 metre of additional inlet pipework and up to 2 metres of additional outlet pipework where a prepayment meter cannot be installed in the place of an existing credit meter. Includes testing (excludes any trace and repair work), purging and re-lighting.	£59.66

#### Ofgem domestic meter accuracy test

Title	Description	Charge		
Ofgem	Includes, transportation of the meter	£98.45		
test	exchange a meter. Includes secure			
	transportation box. Excludes the cost of			
	the meter itself. Includes testing			
	(excludes any trace and repair work), purging and re-lighting.			

#### Exchange damaged meter

Title	Description	Charge
Exchange	Includes time and materials required to	£75.84
damaged	exchange a damaged meter. Excludes	
meter	the cost of the meter itself. Includes	
	testing (excludes any trace and	
	repair work), purging and re-lighting.	
	repair work), purging and re-lighting.	

#### Meter position alteration

Title	Description	Charge
Alter	Includes up to 1 metre of additional	£102.48
position	inlet pipework and up to 2 metres	
of meter	of additional outlet pipework. Includes	
only (no	testing (excludes any trace and repair	
service pipe	work), purging and re-lighting.	
modification)1		

<sup>1</sup> Additional outlet pipe work, in excess of 2m, will be charged at current labour and materials rates in addition to the above charges.

#### Meter removal, clamping and collars

Title	Description	Charge
Remove Meter	Remove domestic-size meter.	£54.06
Fit or remove Clamp (Lock) <sup>2</sup>	Fit or remove clamp to/from domestic-size meter.	£56.66
Fit Security Collar to meter	Fit National Grid-supplied security collar.	£32.09

<sup>2</sup> National Grid supplied clamps and locks can only be fitted and removed by authorised National Grid operatives.

#### National Grid Operative hire

Title	Description	Charge
Half Day³ Hire	Half day National Grid Operative hire.	£250.70
Full Day <sup>3</sup> Hire	ay <sup>3</sup> Full day National Grid Operative hire.	
Hourly rate (normal hours) <sup>3</sup>	National Grid Operative hourly rate.	£74.46

<sup>3</sup> All work shall be carried out in accordance with "General Conditions of Contract for Adversarial Meter Works". These charge rates also apply in respect of purging meters and downstream installations.

#### Large size meters

The following charges relate to installation, removal or testing of larger diaphragm meters. These charges apply only in respect of standard low pressure installations, where no enhancements (e.g. bypasses) are required.

#### Large Diaphragm Meter Installation Charges



Capacity (scmh)	≥11 to <21	≥21 to <29	≥29 to <51	≥51 to <79	≥79 to <121	≥121
Meter only	£189.42	£244.67	£401.85	£929.97	£1,063.70	£1,268.32
Meter and housing	£500.75	£668.10	£866.64	£1,787.71	£2,069.15	£2,485.46

1. These charges are also applicable in the case of meter exchanges where a smaller meter is exchanged for a larger meter. In these cases the applicable rate will be that corresponding to the new meter.

2. The housing charges do not include the costs for explosion relief roofs or for the construction of bases to support the housing. Quotations should be requested if these options are required.

#### Large Diaphragm Meter Removal Charges

Capacity (scmh)	≥11 to <21	≥21 to <29	≥29 to <51	≥51 to <79	≥79 to <121	≥121
Meter removal	£123.41	£123.41	£140.30	£262.75	£294.80	£294.80
Adversarial meter removal*	£123.41	£123.41	£140.30	£262.75	£294.80	£294.80

\*Further charges will apply for any additional time (such as waiting time or purging) or materials in connection with adversarial meter removals.

#### Large Diaphragm Meter Accuracy Tests

Capacity (scmh)	≥11 to <21	≥21 to <29	≥29 to <51	≥51 to <79	≥79 to <121	≥ <b>121</b>
Ofgem accuracy test*	£163.50	£167.99	£242.03	£297.56	£379.62	£480.36

\*Includes, transportation of the meter and time and materials required to exchange a meter. Includes secure transportation box. Excludes the cost of the meter itself. Includes testing (excludes any trace and repair work), purging and re-lighting.

#### **Standard Purging Charges**

Capacity (scmh)	≥11 to <21	≥21 to <29	≥29 to <51	≥51 to <79	≥79 to <121	≥ <b>121</b>
Standard Purging	£158.34	£158.34	£158.34	£197.93	£217.72	£346.37

These charges are applicable if a standard rate for purging is requested for a standard low pressure diaphragm removal (including adversarial removals), rather than the purging being charging on a time and materials basis.

All other charges for work on industrial and commercial size meter installations, dataloggers and volume converters will be quoted on an individual basis

# 2.4. Transfer of in-situ ancillary equipment

Where a National Grid meter is removed and replaced by a meter belonging to another operator the supplier may elect for the transfer of title to the relevant Supplier of the National Grid in-situ ancillary equipment in accordance with contract. Conditions apply regarding the components that may be retained in-situ. For clarification this charge excludes the meter.

#### Standard low pressure domestic-sized meters

Standard charge for installation kit (excludes meter)\* £4.01

\* No charge applies for title transfer where the meter installation is exempted from the 'install' component of annual rental charges, i.e. where the installation was made from 1st October 2000 onwards.

#### Standard low-pressure large diaphragm meters - transfer of ancillary equipment

Standard low-pressure diaphragm meter installations are subject to published charges; all other Industrial and Commercial (I&C) Installations are subject to quotation. Charges exclude the meter.

Capacity	≥11 to <21	≥ <b>21 to &lt;29</b>	≥29 to <51	≥51 to <79	≥ <b>79 to &lt;121</b>	≥ <b>121</b>
Charge *	£125.51	£153.25	£275.71	£530.41	£623.04	£723.30

\* No charge applies for title transfer where the meter installation is exempted from the 'install' component of annual rental charges, i.e. where the installation was made from 1st April 2001 onwards.

#### **Quotation Charges for title transfer of Ancillary Equipment at I&C installations**

National Grid will provide quotations, on an individual basis, for the title transfer to the relevant supplier of in-situ ancillary equipment for all medium and high-pressure meters as well as for low-pressure rotary and turbine meters. The charges for making such quotations are:

Service	Charge per quotation
Quotations based on details of	
equipment as provided by customer.	£44.08
Quotations based on a National Grid	
site survey.*	£109.85

\* Site survey carried out on request for installations < 7barg.

In the case of Ancillary Equipment with an inlet pressure of 7 barg and above, the cost of the quotation will be on the basis of National Grid's cost of preparing such quotation. National Grid will endeavour to provide a best estimate of such costs in advance.



# 3. Metering Charging Methodology

In addition to publishing its charges, National Grid's Gas Transporters Licence requires it to publish an explanation of the methods by which and the principles on which its charges are calculated.

National Grid's metering charges are set so that they are in line with the price control set by Ofgem, the gas and electricity market regulator. To achieve price control for metering services, Ofgem has set tariff caps for four key services. National Grid's charges for these services must not exceed the tariff caps, which are adjusted each year by inflation calculated in accordance with the methodology set out in the National Grid GT licence.

#### Metering Tariff Caps from 1st April 2010

Service	Tariff Cap
Provide, install and maintain domestic credit meter	£14.58 p.a.
Provide, install and maintain prepayment meter	£34.02 p.a.
Domestic credit to prepayment meter exchange	£59.66
Daily Meter (DM) reading	£440.87 p.a.

#### Charges for domestic meter types

For the 2010/11 formula year, domestic credit and prepayment meter rental charges have been set so that they are equal to the tariff caps.

#### Charges for non-domestic meter types

Other, non-tariff capped, charges are regulated through a nondiscrimination condition in National Grid's Gas Transporters Licence. National Grid has reviewed its meter rental charges for larger meters and this has led to National Grid amending its annual meter rental charges by the inflation rate of minus 1%.

Annual charges for the provision, installation and maintenance of Industrial and Commercial meters vary with meter type and capacity. The remainder of this section explains the rationale for such a charging structure and for National Grid's choice of capacity bands.

#### Non-domestic meter types

There are presently three main types of Industrial and Commercial meters – diaphragm, rotary and turbine. Other meter types, such as orifice plate meters, are used for specialist applications.

Installations connected to high-pressure systems operating above 7 barg are considerably more complex. They typically include a flow computer and may comprise additional equipment, such as multi-stage pressure reduction, slam shut discrimination and pre-heaters.

Different meter types have different costs, particularly with respect to purchase price and maintenance costs. For example, rotary meters tend to have higher purchase prices than the equivalent turbine meter. Diaphragm meters do not need regular maintenance, unlike rotary and turbine meters, which need to be serviced according to manufacturer's specifications.

#### **Meter capacity**

Meter capacity is the main cost driver for a particular meter type. Larger meters have higher purchase prices and typically take longer to install. Larger, higher capacity metering installations also have larger, more costly regulators, valves and connecting pipe work. They may include additional equipment, such as pressure protection systems and filters.

#### **Capacity bands**

The charges reflect the forward-looking costs of providing, installing and maintaining a representative range of meter models of each type. For example, I&C diaphragm meter charges reflect the average costs of models in the U series range.

Model	U16	U25	U40	U65	U100	U160
Total Annual	£34.88	£58.61	£87.47	£168.18	£268.22	£326.73
Charge						

In order to move from a structure reflecting the costs of individual meter models to one that may be applied to all models of a given type, the charges are expressed in terms of capacity bands. The upper and lower limits of each band were chosen so that the mid-point of the band corresponds to the capacity of the model on which the charge for that band is based.

Model	U16	U25	U40	U65	U100	U160
Capacity (scmh)	16	25	40	65	100	160
Capacity band	≥11<21	≥21<29	≥29 <b>&lt;</b> 51	≥51<79	≥79 <b>&lt;</b> 121	≥121

To assist customers, National Grid's meter rental charges are shown broken down to three component parts, provision, installation and maintenance. The remainder of this section describes in more detail the methodology used to calculate metering rental charges, which consists of the following steps:

- Determine the forward looking cost components of installing and maintaining meters, dataloggers and volume converters
- Determine a meter provision component and where appropriate scale this component to produce the annual charges
- Calculate transactional charges for meter work

Section 3.1 explains how the component costs of providing, installing and maintaining meter equipment are determined, section 3.2 explains how charges are scaled and section 3.3 describes how transactional charges are calculated. Section 3.4 describes how DM daily meter reading charges are calculated.



## **3.1 Cost Components**

This section explains how National Grid has determined the forward-looking annual costs of providing, installing and maintaining meters, dataloggers and volume converters. The provision component is subsequently scaled as described in Section 3.2.

Domestic credit meter costs are based on U6 diaphragm meters or equivalent (including E6 ultrasonic meters), and prepayment meter costs are based on Electronic Token Meters.

The examples set out below illustrate the calculation of domestic credit meter costs. Equivalent calculations determine the costs associated with prepayment meters and with industrial and commercial meters, dataloggers and volume converters. This methodology derives the components of the total charge on a cost reflective basis. However, the total charge and some or all of the components must be scaled to levels that are consistent with National Grid's price control formula.

#### 3.1.1 Annual Provision costs

Provision charges reflect depreciation costs and an allowance for a return on the value of the meter asset on an average annualised basis.

In setting the tariff caps, Ofgem assumed that National Grid's meters are depreciated over twenty years, with the exception of prepayment meters, which are depreciated over ten years.

Annual cost = meter asset cost

$$\frac{1}{(1+ir)^{t}} x \frac{1}{ir} x \sqrt{(1+ir)}$$

where ir = interest rate (7%), and

t = asset life (20 years)

In setting these charges National Grid has assumed that labour costs include some additional costs over and above direct labour costs, such as National Insurance and transport costs, but exclude support and sustaining costs.

#### 3.1.2 Annual Installation costs

Annual installation costs for 2010/11 have been calculated by adjusting prior year charges by RPI (minus 1%).

#### 3.1.3 Annual Maintenance costs

Maintenance charges reflect planned and unplanned maintenance costs and the costs associated with exchanging faulty meters. The levels shown reflect service provider and material costs, plus an uplift reflecting support and sustaining costs, multiplied by the expected job frequency per meter per year.

Planned maintenance costs have decreased to reflect lower forecast maintenance activity in 2010/11 for domestic credit meters, in particular fewer replacements of batteries for E6 ultrasonic meters (averaged across the whole domestic credit meter population). Maintenance charges for prepayment meters have increased slightly due to proactive battery exchange programmes planned in 2010/11.

#### **Total Maintenance Cost**

The total annual maintenance cost for domestic credit meters is therefore:

C por oppum

Total Maintenance Cost	£0.31
Fault-related Meter Exchanges	£0.04
Planned Maintenance	£0.26
Unplanned Maintenance	£0.01
	r per annun

## 3.2 Scaling of charges

Annual charges reflect the costs described in section 3.1. This section describes how these cost components are scaled to produce the annual rental charges.

#### 3.2.1 Domestic Credit and Prepayment Meter charges

#### **Domestic Credit and Prepayment Meter Tariff Caps**

Service	Tariff Cap
Provide, install and maintain domestic credit meter	£14.58 p.a.
Provide, install and maintain prepayment meter	£34.02 p.a.

For the 2010/11 formula year, domestic credit and prepayment meter rental charges have been set so that they are equal to the tariff caps.

The install and maintain components of the charges are those described in sections 3.1.2 and 3.1.3 above (that is  $\pounds 5.63$  and  $\pounds 0.31$  respectively in the case of domestic credit meters). For these meter types the provide component is calculated by subtracting the install and maintain elements from the tariff capped charge.

#### 3.2.2 Non-domestic meter charges

For the 2010/11 formula year non-domestic metering rental charges (including volume converter and datalogger charges) are adjusted by inflation (minus 1%).

The components of the total charge are calculated in a similar way to those for domestic meter types.

#### 3.2.3 Calculate Provision, Installation and Maintenance Charges

The proportions of the annual charge that are attributable to the provision, installation and maintenance of each meter type are calculated by using the annual forward looking costs for the maintain element, increasing the install element by inflation, and then setting the provide element so that the total of the three elements equals the tariff capped rental for both the domestic credit and prepayment meter. The tariff capped rentals take into account a crosssubsidisation between credit and prepayment meters. Should the cross-subsidy be unwound the prepayment meter rentals would increase to take account of the additional costs associated with procurement, installation and maintenance of a prepayment meter compared to a domestic credit meter.

### **3.3 Transactional Charges**

National Grid has taken the opportunity to amend Transactional Charges for meterworks to take into account operational efficiencies. The impact is an overall decrease (from 2009/10) in the region of 3% although there is a mix of increases and reductions for individual charges.

This section describes the methodology used to determine the transactional (one-off) charge for installation of domestic credit metering equipment. This Charge reflects Service Provider and materials costs, an uplift for other work related costs and an allowance for profit.

Charge = (Materials cost + (Service Provider costs x (1 + overhead uplift))) x (1 + profit%)

Equivalent calculations determined transactional charges for installing other metering equipment and for other categories of meter work. Charges for work on larger Industrial and Commercial metering equipment, dataloggers and volume converters are quoted on an individual basis.

The charge for exchanging domestic meters (from credit to pre-payment or vice versa) is tariff capped and consequently the charge for this work has been scaled down to  $\pounds$ 59.66.

## 3.4 DM Daily Meter Reading

Charges reflect average costs of providing a DM daily reading administration service (including query management), an uplift reflecting support and sustaining costs, and the costs of line rental and telephone calls between dataloggers and the central collection system.

The DM meter reading charge has been set at the tariff cap of  $\pounds440.87$  p.a. from 1st April 2010.

Notes	

#### National Grid National Grid House Warwick Technology Park Gallows Hill Warwick CV34 6DA

