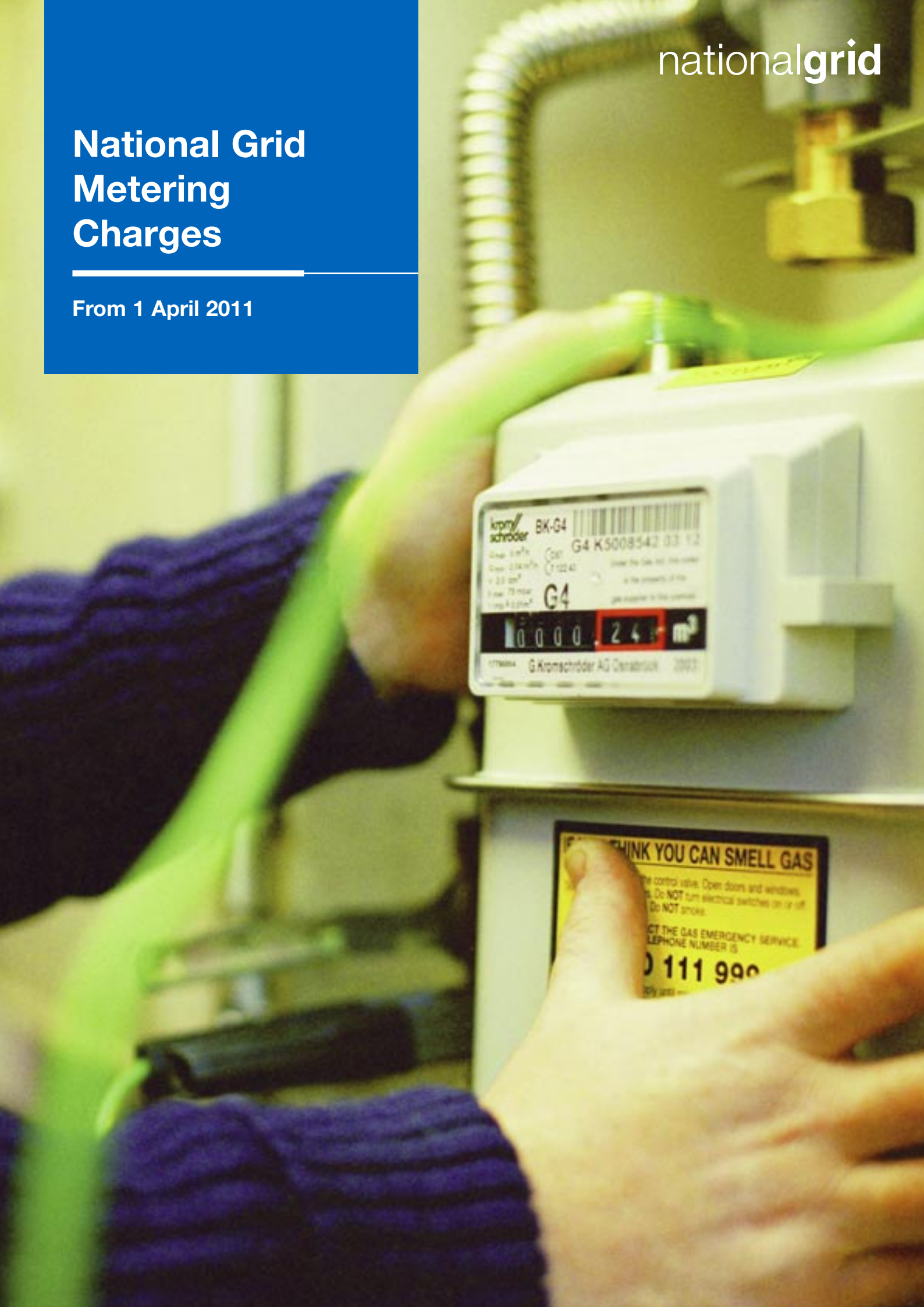
nationalgrid

National Grid Metering Charges

From 1 April 2011



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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[1] from 1 April 2011. 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 (4.73% for 2011/12). National Grid has amended these four charges to the new level of the tariff caps. The annual rental charges for low pressure Large Diaphragm Industrial and Commercial (I&C) meters have been frozen at 2010/11 price levels. In addition to this price freeze and to ensure other I&C rentals are more reflective of actual costs, the price freeze will be extended to include smaller rotary meters (up to 226 scmh). Rentals for high pressure meters have been increased by 24.47% to reflect the high maintenance costs associated with these sites. Other I&C rental charges have been amended in line with inflation of 4.73%. Looking across I&C metering rentals generally the effect of these changes is 2% below inflation.

Please note that 2012 is a leap year. The daily rental charges for 2011/12 have therefore been adjusted accordingly (i.e. annual charges are divided by 366 days to derive the daily charges).

As in previous years, National Grid is taking the opportunity to adjust its transaction charges for meter works. National Grid is currently undergoing a procurement exercise for the provision of meterwork services in the independent distribution networks. Overall, meterwork costs for 2011/12 will rise as service providers pass on costs such as wage and fuel inflation. Consequently, transactional charges for 2011/12 will increase on average by 6.4%. The transaction charge for domestic meter exchange has been amended 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 **metcom2@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 **metcom2@uk.ngrid.com**

This publication sets out National Grid's charges from 1 April 2011 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 a contract with alternative terms and conditions for domestic size meters[2] installed post 1 January 2004. Details of this contract, including the relevant charges are available from Stewart Love via e-mail to **metcom2@uk.ngrid.com**

[2] Where the meter capacity is less than 11 standard cubic meters per hour (scmh).

2. Charges from 1 April 2011

2.1 Introduction

This section sets out the charges for National Grid's Network Code and National Grid's Metering Contracts[3]. 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 **metcom2@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 where an upfront installation charge was not originally levied, this applies to any metering equipment installed by National Grid:

- Before 1 October 2000 in respect of supply points consuming up to 73,200 kWh per annum
- Before 1 April 2001 and after 1 January 2011 in respect of supply points consuming 73,200 kWh per annum and above where a Large Diaphragm Meter is installed
- Before 1 April 2001 in respect of supply points consuming 73,200 kWh per annum and above where the meter is not a Large Diaphragm

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.

Please note that from 1 January 2011, transactional charges will no longer be levied for the standard elements of New Large Diaphragm installations. Instead the annualised installation charge is recovered via the rental as described above.

2.1.2 Domestic Meter Installations

Annual charges for provision, installation (where applicable) and maintenance of domestic size meters[4] 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[5] 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[6].

Annual charges for meter provision, installation and maintenance also vary with the meter's 'badged capacity' or Q_{max}[7], 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.

[3] 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).

[4] Where the meter capacity is less than 11 standard cubic meters per hour (scmh).

[5] Where the meter capacity is greater than or equal to 11scmh.

[6] Operating at pressures greater than 7 barg.

[7] 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 £ 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 [1]

	Credit meter		Prepayment meter	
	Pence per day	£ per annum	Pence per day	£ per annum
Provision	2.4809	£9.08	2.8307	£10.36
Installation	1.6120	£5.90	1.6120	£5.90
Maintenance	0.0792	£0.29	5.2923	£19.37
Total	**4.1721**	**£15.27**	**9.7350**	**£35.63**

(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)	**≥11 <21**	**≥21 <29**	**≥29 <51**	**≥51 <79**	**≥79 <121**	**≥121**
£ 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	5.1012	10.6120	15.1393	27.3688	47.3607	53.5956
Installation	3.6311	4.3798	7.2022	15.8607	19.5984	22.0984
Maintenance	0.7978	1.0219	1.5574	2.7213	6.3251	13.5765
Total	**9.5301**	**16.0137**	**23.8989**	**45.9508**	**73.2842**	**89.2705**

Rotary Meters

Charge Band	**ROT 01**	**ROT 02**	**ROT 03**	**ROT 04**	**ROT 05**	**ROT 06**
Capacity (scmh)	**<28**	**≥28 <57**	**≥57 <113**	**≥113 <170**	**≥170 <226**	**≥226 <396**
£ per annum						
Provision	£153.40	£186.77	£232.09	£275.00	£322.19	£425.58
Installation	£55.19	£69.21	£126.58	£163.86	£200.67	£339.12
Maintenance	£173.55	£174.72	£226.83	£228.48	£229.65	£242.63
Total	**£382.14**	**£430.70**	**£585.50**	**£667.34**	**£752.51**	**£1,007.33**
Pence per day						
Provision	41.9126	51.0301	63.4126	75.1366	88.0300	116.2788
Installation	15.0792	18.9098	34.5847	44.7705	54.8279	92.6557
Maintenance	47.4180	47.7377	61.9754	62.4262	62.7459	66.2923
Total	**104.4098**	**117.6776**	**159.9727**	**182.3333**	**205.6038**	**275.2268**

Charge Band	**ROT 07**	**ROT 08**	**ROT 09**	**ROT 10**	**ROT 11**
Capacity (scmh)	**≥396 <509**	**≥509 <792**	**≥792 <1,358**	**≥1,358 <1,810**	**≥1,810**
£ per annum					
Provision	£511.16	£555.70	£619.77	£1,218.89	£1,451.21
Installation	£432.38	£477.54	£608.60	£694.43	£1,059.80
Maintenance	£298.01	£300.75	£308.37	£1,166.28	£1,171.62
Total	**£1,241.55**	**£1,333.99**	**£1,536.74**	**£3,079.60**	**£3,682.63**
Pence per day					
Provision	139.6612	151.8306	169.3360	333.0301	396.5055
Installation	118.1366	130.4754	166.2842	189.7350	289.5628
Maintenance	81.4235	82.1721	84.2541	318.6557	320.1148
Total	**339.2213**	**364.4781**	**419.8743**	**841.4208**	**1006.1831**

Turbine Meters

Charge Band	TUR 01	TUR 02	TUR 03	TUR 04	TUR 05
Capacity (scmh)	**<283**	**≥283 <509**	**≥509 <792**	**≥792 <1,216**	**≥1,216 <1,952**
£ per annum					
Provision	£607.03	£716.55	£775.26	£925.90	£989.46
Installation	£327.10	£387.35	£500.71	£616.47	£734.54
Maintenance	£741.66	£776.78	£805.25	£840.58	£876.12
Total	**£1,675.79**	**£1,880.68**	**£2,081.22**	**£2,382.95**	**£2,600.12**
Pence per day					
Provision	165.8552	195.7787	211.8196	252.9781	270.3443
Installation	89.3716	105.8333	136.8060	168.4344	200.6940
Maintenance	202.6393	212.2350	220.0137	229.6667	239.3770
Total	**457.8661**	**513.8470**	**568.6393**	**651.0792**	**710.4153**

Charge Band	TUR 06	TUR 07	TUR 08	TUR 09
Capacity (scmh)	**≥1,952 <3027**	**≥3,027 <4,894**	**≥4,894 <8,119**	**≥8,119**
£ per annum				
Provision	£1,485.67	£1,985.53	£2,002.33	£2,093.74
Installation	£1,122.98	£1,445.47	£1,453.78	£1,648.74
Maintenance	£917.39	£951.69	£983.94	£1,009.83
Total	**£3,526.04**	**£4,382.69**	**£4,440.05**	**£4,752.31**
Pence per day				
Provision	405.9208	542.4945	547.0846	572.0602
Installation	306.8251	394.9372	397.2077	450.4754
Maintenance	250.6530	260.0246	268.8361	275.9098
Total	**963.3989**	**1,197.4563**	**1,213.1284**	**1,298.4454**

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**	**≥10,192 <14,906**	**≥14,906 <25,878**	**≥25,878 <36,866**	**≥36,866 <63,524**	**≥63,524**
£ per annum						
Provision	£7,461.56	£8,078.04	£9,318.23	£10,285.46	£11,517.58	£15,542.13
Installation	£4,569.32	£4,976.78	£5,904.59	£6,231.48	£7,046.88	£9,716.12
Maintenance	£12,060.98	£12,797.24	£14,473.86	£15,064.56	£16,538.03	£21,361.45
Total	**£24,091.86**	**£25,852.06**	**£29,696.68**	**£31,581.50**	**£35,102.49**	**£46,619.70**
Pence per day						
Provision	2,038.6776	2,207.1147	2,545.9644	2,810.2349	3,146.8799	4,246.4837
Installation	1,248.4481	1,359.7760	1,613.2760	1,702.5902	1,925.3770	2,654.6776
Maintenance	3,295.3497	3,496.5137	3,954.6066	4,116.0000	4,518.5874	5,836.4617
Total	**6,582.4754**	**7,063.4044**	**8,113.8470**	**8,628.8251**	**9,590.8443**	**12,737.6230**

2.2.3 Volume Converters

Charge Band	COR XX	COR XX
Rental Charge	**Pence per day**	**£ per annum**
Provision	36.8142	£134.74
Installation	14.8388	£54.31
Maintenance	33.4508	£122.43
Total	**85.1038**	**£311.48**

2.2.4 Dataloggers

Rental Charge	Pence per day	£ per annum
Provision	10.1858	£37.28
Installation	45.4590	£166.38
Maintenance	68.7623	£251.67
Total	**124.4071**	**£455.33**

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	126.1557	£461.73

For clarification the daily metering reading charge is set at the tariff cap of £461.73 per annum as at 1 April 2011 and is in addition to the annual rental charge.

2.2.5 SAP Rainbow system access

On 12 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 12 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	£370.90	£74.18
Read only access	£185.46	£43.28

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 Domestic Credit Meter	Includes time and materials (pressure controlling equipment, flexible connector, etc) required to install a domestic credit meter. Excludes the cost of the meter itself.	£76.02
Install Domestic Prepayment Meter	Includes time and materials (pressure controlling equipment, flexible connector, etc) required to install a prepayment meter. Excludes the cost of the meter itself. Includes 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.	£85.92

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.	£62.48

Ofgem domestic meter accuracy test

Title	Description	Charge
Ofgem accuracy test	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.	£103.31

Exchange damaged meter

Title	Description	Charge
Exchange damaged meter	Includes time and materials required to exchange a damaged meter. Excludes the cost of the meter itself. Includes testing (excludes any trace and repair work), purging and re-lighting.	£77.27

Meter position alteration

Title	Description	Charge
Alter position of meter only (no service pipe modification)[1]	Includes up to 1 metre of additional inlet pipework and up to 2 metres of additional outlet pipework. Includes testing (excludes any trace and repair work), purging and re-lighting.	£115.80

[1] 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.	£59.26
Fit or remove Clamp (Lock) [2]	Fit or remove clamp to/from domestic-size meter.	£59.34
Fit Security Collar to meter	Fit National Grid-supplied security collar.	£33.61

[2] 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 Day[3] Hire	Half day National Grid Operative hire.	£270.17
Full Day[3] Hire	Full day National Grid Operative hire.	£454.17
Hourly rate (normal hours)[3]	National Grid Operative hourly rate.	£80.97

[3] 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 – New Installation	£0	£0	£0	£0	£0	£0
Meter and Housing – New Installation	£294.13	£389.63	£456.21	£839.88	£1,009.56	£1,229.42
Meter only Customer Requested Exchange	£213.72	£250.06	£422.68	£978.22	£1,105.66	£1,313.36
Meter and housing Customer Requested Exchange	£507.85	£639.69	£878.89	£1,818.10	£2,115.22	£2,542.78

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.

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	£140.40	£140.40	£156.72	£315.96	£353.93	£353.94
Adversarial meter removal*	£140.40	£140.40	£156.72	£315.96	£353.93	£353.94

*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	≥121
Ofgem accuracy test*	£175.03	£180.62	£259.33	£328.19	£406.70	£523.24

*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	≥121
Standard Purging	£165.83	£165.83	£165.83	£207.30	£228.02	£362.76

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)*	£4.20

* 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 1 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.

Charge for meters installed prior to 1 April 2001

Capacity (scmh)	>=11 to <21	>=21 to <29	>=29 to <51	>=51 to <79	>=79 to <121	>=121
Charge*	£106.86	£125.03	£211.34	£489.11	£552.83	£656.68

Charge for meters installed 1st January 2011 onwards

Capacity (scmh)	>=11 to <21	>=21 to <29	>=29 to <51	>=51 to <79	>=79 to <121	>=121
Charge*	£213.72	£250.06	£422.68	£978.22	£1,105.66	£1,313.36

*Note. No charge applies for title transfer where the meter installation is exempted from the "install" component of annual rental charges. That is where the installation was made after 1 April 2001 and before 1 January 2011.

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.	£46.17
Quotations based on a National Grid site survey.*	£137.38

* 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 (GT) 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 1 April 2011

Service	Tariff Cap
Provide, install and maintain domestic credit meter	£15.27 p.a.
Provide, install and maintain prepayment meter	£35.63 p.a.
Domestic credit to prepayment meter exchange	£62.48
Daily Meter (DM) reading	£461.73 p.a.

Charges for domestic meter types

For the 2011/12 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 non-discrimination 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 as follows:

The annual rental charges for low pressure Large Diaphragm Industrial and Commercial (I&C) meters have been frozen at 2010/11 price levels. In addition to this price freeze and to ensure other I&C rentals are more reflective of actual costs, the price freeze will be extended to include smaller rotary meters (up to 226 scmh). Rentals for high pressure meters have been increased by 24.47% to reflect the high maintenance costs associated with these sites. Other I&C rental charges have been amended in line with inflation of 4.73%. Looking across I&C metering rentals generally the effect of these changes is 2% below inflation.

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 Charge	£34.88	£58.61	£87.47	£168.18	£268.22	£326.73

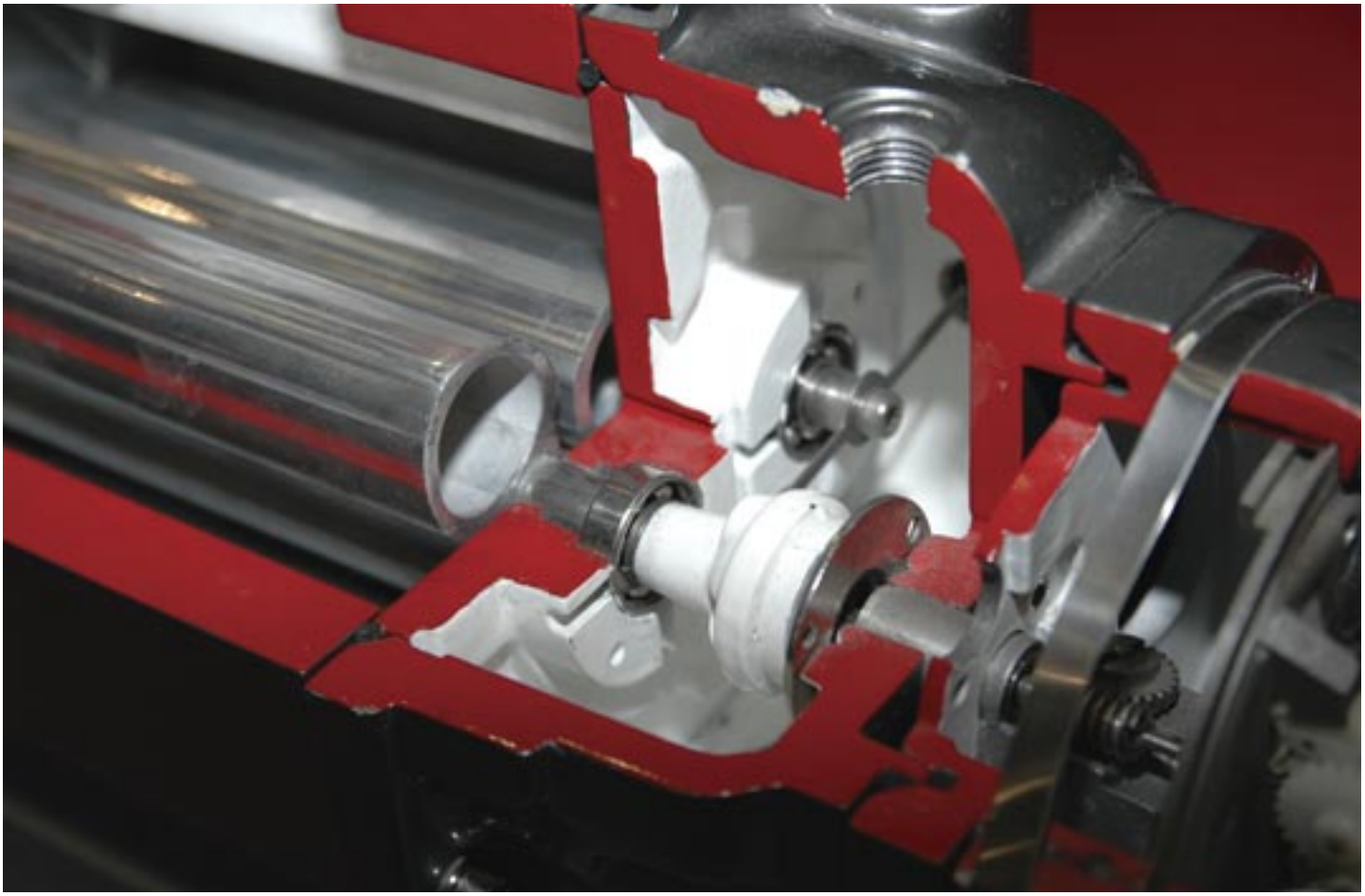
In order to move from a structure reflecting the costs of individual meter models to one that may be applied to all models of a given type, the charges are expressed in terms of capacity bands. The upper and lower limits of each band were chosen so that the mid-point of the band corresponds to the capacity 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<51	≥51<79	≥79 <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.

$$\text{Annual cost} = \frac{\text{meter asset cost}}{\left(1 - \frac{1}{(1+ir)^t}\right) \times \frac{1}{ir} \times \sqrt{(1+ir)}}$$

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 2011/12 have been calculated by adjusting prior year charges by RPI (4.73%).

3.1.3 Annual Maintenance costs

Maintenance charges reflect planned and unplanned maintenance costs and the costs associated with exchanging faulty meters. This charge excludes replacement of the meter and/or installation materials beyond the asset life. 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 2011/12 for prepayment meters, in particular fewer anticipated attend to visits, as the benefits of the proactive battery exchange programme are realised. Maintenance charges for domestic credit meters have remained at a similar level to 2010/11.

Total Maintenance Cost

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

	£ per annum
Unplanned Maintenance	£0.01
Planned Maintenance	£0.24
Fault-related Meter Exchanges	£0.04
Total Maintenance Cost	**£0.29**

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	£15.27 p.a.
Provide, install and maintain prepayment meter	£35.63 p.a.

For the 2011/12 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 £5.90 and £0.29 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 2011/12 formula year non-domestic metering rental charges (including volume converter and datalogger charges) are adjusted as follows:

The annual rental charges for low pressure Large Diaphragm Industrial and Commercial (I&C) meters have been frozen at 2010/11 price levels. In addition to this price freeze and to ensure other I&C rentals are more reflective of actual costs, the price freeze will be extended to include smaller rotary meters (up to 226 scmh). Rentals for high pressure meters have been increased by 24.47% to reflect the high maintenance costs associated with these sites. Other I&C rental charges have been amended in line with inflation of 4.73%. Looking across I&C metering rentals generally the effect of these changes is 2% below inflation.

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 cross-subsidisation 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 latest cost estimates. The impact is an overall increase (from 2010/11) in the region of 6.4% 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 amended to £62.48.

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 £461.73 p.a. from 1 April 2011.

nationalgrid

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