

**ESP CONNECTIONS LTD**

# **Gas Meter Charges**

**Effective from \*\*\***

## ESP Connections Ltd - Gas Meter Charges

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## **2. Introduction**

This publication sets out the gas meter charges that apply for the use of the ESP Connections Ltd (“ESPC”) gas meters connected to its networks for metering services provided under the ESPC Network Code. It is prepared in accordance with the requirements of ESPC’s Gas Transporters (“GT”) licence, and the Utilities Act 2000. It is important to note that this publication does not override or vary any of the statutory, licence or ESPC Network Code obligations upon ESPC.

Customers on ESPC gas networks have a choice of who provides their metering service and so are not restricted to having an ESPC meter to measure their gas offtake. If the customer (normally the person who has a contract with ESPC for the provision of a gas connection) does choose ESPC as their meter service provider then the ESPC metering charge will be added to the transportation charges billed to the relevant licensed gas Shipper.

For more information on the charges set out below, please contact ESPC at the following address:

**ESP Connections Ltd  
Hazeldean  
Station Road  
Leatherhead  
KT22 7AA**

**Tel: (01372) 227 560**

**Fax: (01372) 377 996**

The meter charges relate to the provision, installation, and maintenance of the meter and any associated apparatus (e.g. pressure regulator, valves, base and pipe-work), which is defined as the “Meter Unit”.

A report on how the ESPC gas transportation and storage systems are operated, together with additional information on how the principles used to calculate the meter charges were formulated, can be found in ESPC’s Ten Year Statement, a copy of which can be requested by contacting ESPC at the address given.

## **3. Persons Entitled to Transport Gas**

A person entitled to transport gas will be a suitably licensed gas shipper that has agreed to ESPC’s terms and conditions to enable it to ship gas through ESPC’s gas transportation systems. This will include being a signatory to the ESPC Network Code.

For the purpose of this publication the relevant licensed gas shipper will be a shipper entitled to transport gas that is responsible for a relevant supply point to which a charge applies. For the avoidance of doubt, when a supply point transfers to another shipper, the ESPC metering service will transfer with the supply point and the new shipper will become the relevant licensed gas shipper for that supply point.

## **4. Standards of Service**

ESPC has produced a publication outlining its standards of service for customers connected to its networks. For a copy please contact ESPC at the address given. This publication is also available in large print.

## **5. ESPC Network Code**

The ESPC Network Code is the legal document that defines the rights and responsibilities of ESPC and its customers in relation to the use of the gas transportation and storage systems. There may be a number of areas of the ESPC Network Code that impact upon the cost to Shippers of using ESPC gas meters in addition to this publication, therefore reference should be made to the ESPC Network Code (as modified from time to time) for details of such charges and liabilities. Please note that since 1<sup>st</sup> May 2007 this code incorporates the iGT Uniform Network Code. For the most recent version of this code, and further information, go to [www.igt-unc.com](http://www.igt-unc.com).

## **6. Payment Terms**

A detailed description of ESPC's payment terms can be found in the ESPC Network Code. However, the following summarises the main points.

### **Invoices**

Shippers will normally be invoiced on a monthly basis and the invoice will be for the applicable charges for the previous month. The invoices are derived from the meter charges shown within this publication. A Shipper will normally be invoiced for a supply point's meter as soon as the Shipper takes responsibility for that supply point. Meter removal costs will be invoiced to the relevant Shipper as and when required.

### **Units**

In this publication charges are expressed in pence per day or £ per annum and are definitive charges for billing purposes.

### **VAT**

All charges in this publication are net of VAT. Where VAT applies, it will be added at the appropriate rate according to the tax laws prevailing at the time.

## **7. Modification of Gas Metering Charges**

The current methodology is for the charges to track inflation and the increases for inflation will be on 1st April each year using the calculations described in Section 9 that will stay consistent for each year. Therefore ESPC charges will be deemed as following its methodology when carrying out such modifications to its charges, and so ESPC will not be required to give shippers prior notification of these modifications.

However, this gas metering methodology will be reviewed and updated on an annual basis and if required any proposed material modification to it will be compiled in consultation with relevant Shippers at least 28 days before any material modification is made.

There may be occasions when the gas metering methodology will need to be modified before the annual review, and on these occasions all reasonable endeavours will be made to forewarn the relevant Shippers and any other relevant parties before the changes become effective. Some examples of when such modifications may be required are as follows:

- Directed to do so by Ofgem, or the Director.
- Changes in the regulations, or the law.
- Unforeseen expenses and significant changes in the economic environment.

## **8. Costs Used to Derive the Gas Metering Charges**

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The charges are designed to reflect the costs of providing, installing, and maintaining the Meter Units on ESPC gas distribution systems. The main elements of these are as follows:

- The meter and any apparatus that forms part of the Meter Unit, for example pressure regulator, valves, base and pipe-work.
- Repair and replacement of the Meters Units and any other associated apparatus.
- The write-off value of the un-recovered capital investment for faulty meters replaced and the higher capital expenditure for the replacement meters installed as a one-off under ESPC's emergency contract.
- The maintenance and repair of the Meters Units' housing (if applicable).
- Consents required for the Meter Unit, for example easement payments to landowners.
- Emergency service to deal with gas escapes and any other emergency work relating to the Meter Unit.
- The administration and general running costs associated with the Meter Units.
- Insurance costs (note that a significant portion of the potential safety risks resides at the gas off-take point that includes the Meter Unit).
- Business start up costs.
- The removal and disposal of the Meter Unit when scheduled for replacement.

### 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. The meter charges do not include any adjustment relating to costs associated with individual cases of theft.

### Business Rates

Business rates are levied on gas assets. Currently, however, gas meters are not rated individually but are included as part of the operations of a gas transporter. To reflect the fact that the Meter Units are income-generating assets and so could be considered a rateable item within the gas assets, an element of these rates may be allocated to the Meter Units.

### Meter Reading

There is a requirement to read a meter periodically at an offtake point, the conditions for which are set out in the ESPC Network Code. Shippers are required to organise the agent that will read the meters they are responsible for.

### General Administration and Development Costs

ESPC incurs administration and development costs when operating its gas networks and the connected Meter Units, and so a portion of these costs will be included in the meter charges where applicable. These include the following:

- Operation of a Supply Point Administration service.
- Operation and development of the required computer databases.
- Billing and other financial functions.
- Network Code upkeep and modifications.
- Safety Case upkeep and development.
- MAMCoP upkeep and development.
- Upkeep and development of an asset management system.
- Production and upkeep of other required publications.

### Relative Price Control

Relative Price Control ("RPC") used to calculate transportation charges does not cover metering charges, therefore RPC is not applicable to this publication and the charges shown.

## 9. Methodology Used to Calculate Gas Metering Charges

### 9.1. Introduction

When ESPC first introduced its meter charges National Grid (“NG”), formally known as Transco, was at the time the dominant GT within the United Kingdom and so the majority of meters were connected directly off NG’s network. As a consequence gas Shippers generally based their pricing strategy on the NG meter charges.

ESPC did use NG’s charges as a benchmark on which to base their initial charges, firstly for its meters that related to its legacy charges, then again for its meters for RPC charges. However these were not subsequently linked to NG’s changes and so have not changed in-line with NG’s but with inflation instead.

The methodology to track inflation uses the Retail Price Index and the increases for inflation are on 1st April each year. However the data used to calculate the Retail Price Index is not available for the implementation of the changes on 1<sup>st</sup> April if the April to March period is used. Therefore the period January to December is used to calculate the relevant increase in inflation. The adjustment is based on the same data as used by Ofgem when it calculates the Retail Price Index adjustment for RPC each year, as follows (with an example based on this year):

**Source:** Office of National Statistics ([www.nationalstatistics.gov.uk](http://www.nationalstatistics.gov.uk))

**Title:** Retail Prices Index: monthly index numbers of retail prices 1948-2004 (RPI) (RPIX)

**Series Identifier (type of Index used):** CHAW (takes into account all items)

EXAMPLE - Defined Period	Arithmetic Average	RPI (%)
January to December 2005	191.98	3.19%
January to December 2006	198.11	

ESPC’s decision to increase its metering charges with inflation allows ESPC to predict the long-term charges it can expect from the metering assets from which it can calculate its investment into its metering service.

During 2000 & 2001 NG started to charge for the installation of its meters upfront and for those meters it levied a reduced meter charge, as it did not have to recover the cost of installation. For meters installed prior to this the meter charges remained the same, therefore in practice most of the meters were, and are still, charged based on the installation being provided free of charge.

ESPC at this time chose to keep the installation within the metering service and so for any new meters the installation investment was still made by ESPC, and recovered through its metering charges.

In recent years Ofgem has introduced measures to increase competition in the gas metering market and as a result NG has introduced additional types of meter charges. Also there are now other meter operators that provide a meter service, which has increased the range of meter charges for meters connected directly to the DN Operators’ networks.

Although ESPC will need to continue to apply its current meter charging methodology for its existing networks as the original capital investment made by ESPC was based on this assumption (and consequently the customer would have benefited from a higher investment from ESPC initially through a reduced connection charge). Also for the time being for new networks ESPC intends to continue to apply the same methodology in order that its charges

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remain consistent (and so the customer will still continue to benefit from the investment ESPC is able to make towards the connection). However in response to the changing environment ESPC has reviewed its current metering charges to allow for greater flexibility, therefore although previously ESPC did not split out its metering charges into all the three elements of the service provided (as NG does) these have now been quoted individually in the same way as NG. This, as specified in the metering charging section, has enabled ESPC to detail its recovery of capital investment and costs should an ESPC meter be removed and replaced by a third party meter. It also allows ESPC do this in a way that is consistent with the other Gas Transportation companies within the ESP Gas Group, of which ESPC is one. The way in which the existing metering charges have been modified in order to split them into the three elements is described in Appendix D.

The one exception to this methodology is the provision of prepayment meters, which ESPC is not currently in a position to provide since it is unable to secure a maintenance service at an economic rate. Also a prepayment meter system could be more costly to administer for ESPC than for example NG, therefore should ESPC be in a position to offer a prepayment meter service it may be unable to benchmark the service with NG. In addition the service level may have to be modified to reflect the terms and conditions of any third party required to provide a maintenance service and the type of prepayment meter used.

(It should be noted that for pricing purposes, Shippers are recommended to use the charges shown below in this publication, rather than basing them on assumptions derived from the descriptive methodology above.)

### **9.2. Methodology Used to Calculate Charges**

When ESPC evaluates a proposed network the transportation and metering charges will be cost reflective of three factors: the capital invested in the network by ESPC; the operating costs for the network; and the risks undertaken by ESPC in investing and operating that specific network.

To evaluate the metering as a separate item would require ESPC to calculate meter charges for each individual network. This would result in a vast array of prices that would be impractical both to ESPC and to ESPC's customers. The practical solution to this problem is to charge in the same way as NG i.e. based on standard metering charges. It is worth noting therefore that even if it had decided not to base its charges on NG's, ESPC would have based its metering methodology on keeping the charges to the same level for each meter type, regardless of the network that the meters are on. So, ESPC's required return on its metering assets is based on taking a spread approach, where it evaluates the average capital investment and operating costs for its portfolio of meters.

However, there are potential drawbacks to ESPC's methodology, in that:

- The metering charge to a customer would not be fully cost reflective of the service provided to them, as a customer provided with a more expensive Meter Unit than the average would be subsidised by a customer provided with a cheaper Meter Unit than the average.
- Because ESPC's charges are based on NG's, the income from these charges is based on NG's evaluation of its required returns on its capital investment and operating costs, all of which would be different to ESPC's.

Therefore, when ESPC evaluates an individual network, if the rate of return for the metering element of the expected income is higher than the target rate, then ESPC will compensate by requiring a lower return on the service connection, and visa versa if the metering income return is lower than the target amount. This results in the customer being provided a service connection and meter at a combined price that gives ESPC its required return overall, and

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ensures the customer benefits from the full investment ESPC is able to make towards their connection.

Importantly, this method of charging a customer is based on the projected return being over a defined investment period. This in turn requires the service and meter assets to be in place for the full period in order for ESPC to realise its predicted return. The benefits to the customer of ESPC quoting on this basis is a higher capital contribution from ESPC, and hence a lower up-front connection charge to the customer, gained from the certainty ESPC has of recovering its investment and return.

**This publication provides a method of cost recovery, consistent with the original investment criteria and benefits to the customer, should an ESPC Meter Unit be replaced by that of a third party before the planned investment period is complete.**

If the option of a third party meter is chosen at the time of initial connection, ESPC is able to assess a service connection charge based on transportation charges alone. However, any person requiring a service connection must specify within a sufficient notice period that they intend to procure a third party meter, in order to allow time for the quotation for a service connection to be modified accordingly. If this notice is not given then the terms of the service connection will be on the basis of fitting an ESPC Meter Unit and the subsequent meter service being provided on ESPC's terms and conditions (as outlined in this publication). Should this notification not be given within a sufficient notice period and ESPC has made, or committed, its capital investment (whether in whole, or partially) on the basis that an ESPC Meter Unit will be required, ESPC will be entitled to recoup its investment as specified in this publication. For clarity this will also be the case where it is intended that a meter will be fitted at some later date to the original provision of the service connection (which mainly applies to infill connections).

The investment period starts when a new Meter Unit is installed. Therefore when a Meter Unit is replaced, whether before its scheduled replacement (e.g. faulty meter), or when scheduled for replacement, the required investment period will start from the date the replacement Meter Unit is installed. In each case, ESPC has in effect made a new capital investment that it needs to recover according to the same methodology.

Because the standard meter charges do not take into account the costs incurred by ESPC associated with the removal of its Meter Unit by a third party before the end of the required investment period, this publication also provides a clear method by which these additional costs are recovered.

## 10. Gas Meter Charges

For historical reasons ESPC's meter charges were split into two types:

- Legacy: These are for supply points on networks covered by transportation methodologies developed prior to the introduction to RPC. It should be noted that these supply points will migrate to RPC pricing in the future, however they will still retain the legacy metering charges until the investment period has been completed.
- RPC: These are for supply points on networks covered by the RPC methodology for calculating the transportation charges.

Splitting the charges based on NG the revised ESPC metering charges are as follows:

### Legacy Charges

	Meter Charges	
	Pence per Day	£ per Annum
Provision	2.1175	£7.75
Installation	1.4290	£5.23
Maintenance	0.7722	£2.82
<b>Total</b>	<b>4.3187</b>	<b>£15.80</b>

### RPC Charges

	Meter Charges	
	Pence per Day	£ per Annum
Provision	2.1175	£7.75
Installation	1.4290	£5.23
Maintenance	0.0797	£0.29
<b>Total</b>	<b>3.6262</b>	<b>£13.27</b>

It should be noted that these charges cover both domestic and commercial meters and there are currently no other types of charges. However in case relevant in the future the following charges would be applicable if a corrector were fitted.

### Correctors

	Pence per Day	£ per Annum
Provision	32.6612	£119.54
Installation	13.1667	£48.19
Maintenance	22.2404	£81.40
<b>Total</b>	<b>68.0683</b>	<b>£249.13</b>

Note: Correctors are fitted to meters which are expected to pass 3,000,000 kWh per year or more.

## 11. Meter Reads

There is a requirement to read the meters at an offtake point, the conditions for which are set out in the ESPC Network Code. Shippers are required to organise the agent that will read the meters they are responsible for.

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Meter reads are separate from the provision of a meter service and so do not form part of the gas meter charges and the conditions of providing a meter service. A brief summary of the main meter reading requirements and ESPC's metering services has been included in ESPC's Gas Transportation Charges publication.

## **12. Meter Removal**

### **12.1. Introduction**

If an ESPC Meter Unit is removed by another meter operator/provider and replaced with their own, ESPC will seek to recover any costs incurred for the removal of its Meter Unit and any capital investment made in the provision of its metering service not yet recovered through its meter charges. To do this, the following methodology will be applied in order to:

- Ensure all costs are recovered consistently.
- Provide clarity as to the costs being recovered and how this is done.
- Facilitate metering competition by providing customers and other relevant parties a clear methodology by which they can assess the potential replacement of ESPC Meter Units.

It should be noted that although ESPC has now split out its metering charges into separate services this does not imply that ESPC is in any way obliged to provide these services separately for any purpose not outlined in this publication (e.g. providing a maintenance service for a third party meter).

Where there is a Corrector, and/or any other additional item charged for in addition to meter charges, the cost recovery will be on the same basis as the Meter Unit where applicable.

### **12.2. Meter Charges - Provision**

The Provision element of the meter charge is to recover the capital cost of just the meter (which excludes in most cases any associated apparatus) and ESPC's required return on that capital investment over a 20 year period from installation. After this period ESPC will assess this element of the metering charge to determine the level at which it should continue, taking into account:

- whether the required return has been recovered.
  - If not, it may extend the recovery period by up to a further 5 years (i.e. maximum investment period can be up to 25 years).
- continued reliability/accuracy.
- whether the meter is fit to remain in place for an extended period, or should be replaced .
  - If it is to remain in place, the additional costs associated with an older meter (e.g. higher maintenance, potential additional capital expenditure, any testing required, etc) must be considered.

If the meter is removed before the end of this recovery period, the following process will apply:

Firstly it will be established whether the meter can be reused, and if so, whether it can be reused economically. Taking domestic and small and medium I&C meters as a specific case, it has been established that even though these can be reused physically, from an economic standpoint there is limited financial benefit in doing so, if none at all (see Appendix B for further explanation).

Therefore, for domestic and small and medium I&C meters ESPC will assume no reuse of any meters removed, but instead will take the following actions regarding the Provision element of the meter charges for the relevant meter point:

- ESPC will either need to:
  - charge upfront for the amount not yet recovered, or;
  - continue to levy the Provision charge over the original investment period to recover the cost and required return for the meter. Once this investment

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period has come to an end, ESPC will discontinue the Provision charge for the meter point.

- It is the responsibility of the party removing the ESPC meter to return it to ESPC – to a location specified and within a reasonable time period - in no worse a condition than it was found. If this is done to the satisfaction of ESPC, ESPC will only levy a charge for its handling and administration costs associated with the returned meter. Should the meter not be returned in such a way, ESPC will also charge any additional costs associated with the recovery of its meter asset. (It should be appreciated that because it is the owner of the meter, ESPC is liable to ensure its safe removal from site and appropriate disposal.)
- At ESPC's sole discretion and on a case by case basis it will evaluate whether there is an economic and practical case for the reuse of the meter, and if so it will adjust the recovery of the costs accordingly to reflect this benefit to ESPC. This will be based solely on ESPC's assessment criteria that ESPC is in no way obliged to divulge.

For the larger I&C meters ESPC will take the same course of action. However, if requested, or at ESPC's own discretion, ESPC will review individual meter removals and assess the practicalities of reusing the meter for another site. Should this assessment demonstrate that after all the reuse costs (including the costs for the assessment itself) have been taken into account, it is economical to reuse the meter, and in addition ESPC has a suitable site where it intends to reuse the meter, ESPC may adjust its payment terms to reflect this benefit. This is however limited to the larger I&C installations and ESPC will charge for carrying out the review if it is requested, regardless of its conclusions. This review will be based solely on ESPC's assessment criteria that ESPC is in no way obliged to divulge.

This method is to ensure the projected return is achieved based on the original investment proposal presented to the customer, where the meter asset was calculated to be in place for the full period. The benefit to the customer at the time of ESPC quoting on this basis was a higher capital contribution from ESPC, and hence a lower connection charge to the customer, gained from the certainty ESPC had of recovering its investment and return. Therefore, this method of cost recovery is consistent with the original capital investment criteria, and the benefits it provided the customer.

To charge for the cost recovery when a meter is replaced by a third party, ESPC has calculated an amount based on the age of the Meter Unit, since the required cost recovery will reduce with age. As the income from the meter provision charges are directly proportional to the capital recovery and return required, ESPC has established that the most efficient method to charge for the cost recovery is by expressing it as a multiple of the current meter provision charges. This has two benefits: firstly it allows a single table of values from year 1 to 20 to be used to calculate the amounts for all meter types; and secondly it provides for inflation without the amounts having to be re-calculated each time the charges are increased.

These cost recovery multiples are as follows:

### Cost Recovery Charges – Meter Provision

Age (years)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Multiple	9.7	9.5	9.3	9.0	8.8	8.5	8.1	7.8	7.4	7.0	6.6	6.1	5.6	5.0	4.4	3.7	3.0	2.2	1.4	0.5

### 12.3. Meter Charges - Installation

The Installation element of the meter charge is to recover the capital cost of the installation of the meter, the provision and installation of the associated apparatus, and ESPC's required return on that capital investment over a 20 year period from installation. After this period

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ESPC will assess this element of the metering charge to determine at what level it should continue at, taking into account:

- whether the required return has been recovered.
  - If not, it may extend the recovery period by up to a further 5 years (i.e. maximum investment period can be up to 25 years).
- continued reliability/accuracy.
- whether the meter is fit to remain in place for an extended period, or should be replaced .
  - If it is to remain in place, the additional costs associated with an older meter (e.g. higher maintenance, potential additional capital expenditure, any testing required, etc) must also be considered.

If the meter is removed before the end of this recovery period, the following process will apply:

Firstly, it will be established whether the installation can be reused, and if so whether it can be reused economically. It has been established that for domestic, and small and medium I&C installations, even though the apparatus can be reused physically, there is no financial benefit in doing so (see Appendix B) . It is only when you get to the larger I&C units does the associated apparatus become of high enough value to consider its reuse. However, ESPC then has the issue of whether it has a suitable site for a unit's reuse, since the larger the I&C unit is, the more specific it becomes to an individual site's requirements.

Therefore when an ESPC meter is to be replaced by that of a third party, ESPC will take the following actions in relation to the Installation element of meter charges for the relevant meter point:

- It will either need to:
  - charge upfront for the amount not yet recovered, or;
  - continue to levy the Installation charge over the original investment period to recover the cost and required return for the meter. Once this investment period has come to an end, ESPC will discontinue the Installation charge for the meter point.
- The shipper responsible for that meter point and the party that has, or intends to, remove the meter will be informed that any remaining ESPC associated apparatus is still the property of ESPC **but** that ESPC will no longer maintain it and it should no longer be used. At the same time the following options will be offered:
  - 1) ESPC will consider, at its sole discretion, whether it will transfer the ownership of the associated apparatus to a designated party under ESPC's terms for doing so. (It should be noted that under these terms ESPC would retain no liabilities or provide any warranties, and ESPC would charge its administration and other related costs to carry out the transfer of the assets to the designated party, and only when paid will the assets be deemed to be transferred.)
  - 2) All the associated apparatus is returned to ESPC under ESPC's terms for doing so. (It should be noted that under these terms ESPC will charge to the relevant party its handling and disposal costs for the returned assets.)
  - 3) The associated apparatus can be removed and disposed of by a suitable party, but this should be done to the satisfaction of ESPC under its terms for doing so. (It should be appreciated that as these assets are still the property of ESPC, ESPC remains liable for their appropriate disposal.)
  - 4) If required, ESPC will remove and dispose of the associated apparatus itself, and will charge its costs for doing so.
- Once one of these options has been successfully carried out to a suitable point, ESPC will notify the relevant parties that it no longer has any installation assets for the meter point. ESPC will levy an administration charge to process whichever option is chosen.
- If requested, or at ESPC's own discretion, ESPC will review individual meter removals and assess the practicalities of reusing the associated apparatus for another site. Should this assessment demonstrate that after all the reuse costs (including the costs for the

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assessment itself) have been taken into account it is economical to reuse the associated apparatus, and in addition ESPC has a suitable site at which it intends to reuse the associated apparatus, ESPC may adjust its payment terms to reflect this benefit. This is however limited to the larger I&C installations and ESPC will charge for carrying out the review if it is requested regardless of its conclusions. Again, the review will be based solely on ESPC's assessment criteria that ESPC is in no way obliged to divulge.

This method ensures the projected return is achieved based on the original investment proposal presented to the customer, where the associated apparatus was calculated to be in place for the full period. The benefit to the customer at that time of ESPC quoting on this basis was a higher capital contribution from ESPC, and hence a lower up-front connection charge to the customer, gained from the certainty ESPC had of recovering its investment and return. Therefore, this method of cost recovery is consistent with the original capital investment criteria, and the associated benefits it provided the customer.

To charge for the cost recovery when associated apparatus is replaced/transferred by/to a third party, ESPC has calculated an amount based on the age of the Meter Unit, since the level of required cost recovery will reduce with age. As the income from the meter installation charges are directly proportional to the capital recovery and return required, ESPC has established that the most efficient way to charge for the cost recovery is by expressing it as a multiple of the current meter installation charges. This has two benefits: firstly it allows a single table of values from year 1 to 20 to be used to calculate the amounts for all meter types; and secondly it provides for inflation without the amounts having to be re-calculated each time the charges are increased.

These cost recovery multiples are as follows:

### Cost Recovery Charges – Meter Installation

Age (years)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Multiple	9.7	9.5	9.3	9.0	8.8	8.5	8.1	7.8	7.4	7.0	6.6	6.1	5.6	5.0	4.4	3.7	3.0	2.2	1.4	0.5

### 12.4. Meter Charges - Maintenance

The Maintenance element of the meter charge is to recover the ongoing operation and maintenance costs of the Meter Unit, ESPC's required profit for this part of the meter service and the recovery of an element of the business start up costs. When the Meter Unit has reached the end of the capital investment period ESPC will assess whether to replace it (in part or whole) or whether it can remain in place for an extended period. At this point ESPC will assess this element of the metering charge to determine the level at which it should continue, taking into account:

- The costs associated with a new Meter Unit.
- If the Meter Unit is to remain in place, the additional costs associated with an older installation (e.g. higher maintenance, potential additional capital expenditure, any testing required, etc) will be considered.

Should the meter be removed before this period is completed the following process will be followed:

It will be assessed whether there will still be some residual operational and maintenance costs that ESPC will be required to pay even though the Meter Unit is no longer ESPC's. It has already been determined that for all supply points there are costs incurred by ESPC from its responsibilities as a GT (see Appendix C for examples). This is in contrast to a third party meter owner that would no longer incur any operational costs if it were to cease to be the meter operator for a supply point. Even without its own meter in place, ESPC would

## ESP Connections Ltd - Gas Meter Charges

retain some residual costs associated with metering activities as the operator of the supply point.

The profit element of the maintenance charge must be recovered for the remaining investment period. Additionally, the business start up costs used in original investment evaluation will need to be assessed and recovered.

So, when an ESPC meter is to be replaced by that of a third party, ESPC will take the following actions in relation to the Maintenance element of meter charges for the relevant meter point:

- It will either need to:
  - charge upfront for the amount of required profit and start up costs not yet recovered and an amount that will take into account the long-term residual costs incurred as the incumbent GT;
  - or continue to levy a portion of the Maintenance charge over the original investment period to recover the required return for the Meter Unit, start up costs and residual costs. Once this investment period has been completed, ESPC will reduce the Maintenance charge for the meter point to recover only the residual costs incurred.

This method ensures the projected return is achieved based on the original investment proposal presented to the customer, where the associated apparatus was calculated to be in place for the full period. The benefits to the customer at that time of ESPC quoting on this basis was a higher capital contribution from ESPC, and hence a lower up-front connection charge to the customer, gained from the certainty ESPC had of recovering its investment and return. Therefore this method of cost recovery is consistent with the original capital investment criteria, and the benefits it provided the customer.

To charge for the cost recovery when a Meter Unit is replaced by a third party, ESPC has calculated an amount based on the age of the Meter Unit, as the cost recovery will reduce with age. As the income from the meter maintenance charges is directly proportional to the residual costs incurred and profit required, ESPC has established that the most efficient method to charge for the cost recovery is by expressing it as a multiple of the current meter maintenance charges. This has two benefits: firstly it allows a single table of values from year 1 to 20 to be used to calculate the amounts for all meter types; and secondly it provides for inflation without the amounts having to be re-calculated each time the charges are increased.

These cost recovery multiples are as follows:

### Cost Recovery Charges – Meter Maintenance

Age (years)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20+
Multiple	5.1	5.0	5.0	4.9	4.8	4.7	4.6	4.5	4.4	4.3	4.1	4.0	3.9	3.7	3.5	3.3	3.1	2.9	2.6	2.3

### 12.5. Other Costs

In addition to the cost recovery of the capital investment and required return there will be other costs associated with the removal of the Meter Unit that will need recovering (some of which have already been outlined), for example:

- Handling and administration costs associated with the returned assets.
- Costs associated with the recovery of ESPC assets where required.
- Assessing the practicalities of reusing Meter Unit assets for another site.

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- Work required to carry out any assessments of individual circumstances to determine the appropriate methods used in the calculation of the charges.
- Transferring ownership of associated apparatus to a designated party.
- Disposal of assets by ESPC or a suitable party. This includes ESPC's costs in ensuring assets are suitably dealt with by the party removing them.
- Communications with the new meter provider and any third parties to manage the process.
- Updating ESPC's database to change the details of the Meter Unit.
- Raising invoices and the financial controls for the recovery of the charges.
- Other administration, operational and third party costs incurred.

Please note that this list is not exhaustive. There may be other incurred costs that ESPC will seek to recover.

ESPC is still in the process of reviewing how much it expects to charge for each type of additional cost incurred from the removal of its Meter Units. For the moment, many of these charges will be assessed on a case by case basis. This is likely to remain the case until more experience is gained as the metering market evolves over the coming years. However, over a period of time ESPC expects that specific costs will start to be identified and published, to provide a guide as to how much ESPC would charge for each activity. As a starting point, ESPC has endeavoured to compile a number of guideline costs, which should however only be used as estimations.

### **Guideline additional costs**

For a standard low pressure domestic Meter Unit returned to ESPC (both meter and associated apparatus) in the correct manner, a basic minimum handling and administration charge of £20 will always be applied. An additional amount will be added to this basic charge for any other work carried out, or where the basic charge does not cover all the costs incurred (for example disposal costs).

For any other Meter Unit an individual cost will be calculated on a case by case basis as follows:

- The basic minimum handling and administration charge of £20 will always be applied.
- The administration requirements will be assessed individually, however as an indication of the costs involved, typically £29 per man-hour will be charged. Also there will be other costs taken into account which may include postage, stationery, office overheads and other ancillary costs.
- Professional charges will be based upon an hourly charge out rate of £43 per hour where this can be resourced internally.
- Where external resources are required these charges will be levied according to the cost to ESPC, and overheads will be applied at the appropriate rate.

**13. Useful Contacts and Addresses**

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KT22 7AA**

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Web Site: [www.ESPCipelines.com](http://www.ESPCipelines.com)**

**Ofgem  
9 Millbank  
London  
SW1P 3GE**

**Tel: (0207) 901 7000  
Fax: (0207) 901 7066**

**Health and Safety Executive  
Rose Court  
2 Southwark Bridge  
London  
SE1 9HS**

**Tel: (0845) 345 0055**

**Gas and Electricity Consumers Council (GECC)  
4th Floor  
Artillery House  
Artillery Road  
London  
SW1P 1RT**

**Tel: (0207) 931 0977**

**Energywatch  
Tel: 0845 9060708  
Website: [www.energywatch.org.uk](http://www.energywatch.org.uk)  
E-mail: [enquiry@energywatch.org.uk](mailto:enquiry@energywatch.org.uk)**

## 14. Glossary of Terms

<b>Word / Acronym</b>	<b>Definition</b>
DN	Distribution Network
DN Operators	National Grid and the iDNs
ESPC	ESP Connections Ltd
Utilities Act	Utilities Act 2000
HSE	Health and Safety Executive
iDN	A licensed regional independent (gas) distribution network.
iGT	Independent Gas Transporter (all licensed gas transporters except The DN Operators)
I&C	Industrial and Commercial
Meter Unit	Meter and associated apparatus (e.g. pressure regulator & couplings).
NG	National Grid (formally known as National Grid Transco)
Ofgem	The Gas Regulator
GT	Gas Transporter
Qmax	The meter's "badged capacity"
Reinforcement	Physical works to build additional capacity into the ESPC system

## Appendix A: Examples of Charges

There follows examples demonstrating how the meter charges are calculated.

### **Domestic Connection - Legacy**

A domestic customer requires a credit meter on a network covered by Legacy transportation charges therefore their shipper will be charged **£15.80** per year.

### **Domestic Connection - RPC**

A domestic customer requires a credit meter on a network covered by RPC transportation charges therefore their shipper will be charged **£13.27** per year.

There follows examples demonstrating how the cost recovery charges are calculated.

### **Domestic Meter Unit - Legacy**

A standard domestic meter on a network covered by Legacy transportation charges and its associated apparatus is removed and returned to ESPC in the required manner. The Meter Unit was installed 3 ½ years prior to its removal.

The cost recovery multiples used are those based on the 4 year age sets and therefore the cost recovery amounts are calculated as follows:

Provision:	Recovery Multiple 9.0	x	Current Charge £7.75	=	Cost Recovery £69.75
Installation:	Recovery Multiple 9.0	x	Current Charge £5.23	=	Cost Recovery £47.07
Maintenance:	Recovery Multiple 4.9	x	Current Charge £2.82	=	Cost Recovery £13.82

**TOTAL = Cost Recovery £130.64**

As the Meter Unit was returned to ESPC in the correct manner the basic minimum handling and administration charge of **£20.00** will be applied.

There will be a further charge of **£10.00** for the Meter Unit disposal and other costs (only an indicative amount as an illustration, not to be assumed as the actual disposal charge).

The total Cost Recovery Charge will therefore be **£160.64**.

### **Domestic Meter Unit - RPC**

A standard domestic meter on a network covered by Legacy transportation charges and its associated apparatus is removed and returned to ESPC in the required manner. The Meter Unit was installed 3 ½ years prior to its removal.

The cost recovery multiples used are those based on the 4 year age sets and therefore the cost recovery amounts are calculated as follows:

Provision:	Recovery Multiple 9.0	x	Current Charge £7.75	=	Cost Recovery £69.75
Installation:	Recovery Multiple 9.0	x	Current Charge £5.23	=	Cost Recovery £47.07
Maintenance:	Recovery Multiple 4.9	x	Current Charge £0.29	=	Cost Recovery £ 1.42

**TOTAL = Cost Recovery £118.24**

As the Meter Unit was returned to ESPC in the correct manner the basic minimum handling and administration charge of **£20.00** will be applied.

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There will be a further charge of **£10.00** for the Meter Unit disposal and other costs (only an indicative amount as an illustration, not to be assumed as the actual disposal charge).

The total Cost Recovery Charge will therefore be **£148.24**.

## **Appendix B: Reuse of Meter Units**

It may be that the total costs associated with reusing the Meter Unit are higher than the recovery and disposal of the Meter Unit and the calculated value of the Meter Unit (based on the cost of the Meter Unit when new, minus the depreciation in value). If this is the case, instead of charging the costs associated with the reusing of the Meter Unit ESPC will charge for the recovery and disposal of the Meter Unit and the cost recovery of the Meter Unit.

### **The Meter**

To establish whether the meter can be reused, and if so whether it can be reused economically, the following needs to be considered:

- Does ESPC have, or anticipate having, a suitable site that will require that specific type of meter? For domestic and smaller I&C this would in almost all instances be the case, but for the larger I&C meters where the designs are much more specific to the individual site's requirements, this may not be the case for some considerable time.
- Are there enough sites for the returned meters to go to, as even with domestic meters if large numbers are returned ESPC may not have sufficient sites to reuse them all.
- What would be the handling costs associated with taking the meter back and managing the process to ready it for reuse (this includes the assessment process itself).
- What condition will the meter reasonably be expected to be in, and what costs would be incurred to bring it up to a standard for reuse (does it need testing, will parts be required to make it a complete kit, etc?).
- The location the meter is left by the removing party and whether there are any recovery costs involved.
- What would be the storage and stock administration costs.
- What are additional logistical requirements to manage the reuse of the meter.
- Any new specifications introduced that require the Meter Unit to be modified.
- Delivery costs to site.
- The contractual relationship with the parties ESPC deals with regarding the installation of the network and meters (and theirs with other parties they contract to) as this may not allow for the use of these meters.
- The loss of warranties from the original provider of the meter that would be provided if a new meter was used. This would result in ESPC taking full financial liability if the meter is faulty.

Taking domestic and small I&C meters as a specific case it has been established that even though these can be reused physically, from an economic standpoint there is no financial benefit in doing so in the majority of cases. This is because the cost of a new meter delivered to site would on average be no more expensive, and in all likelihood be less expensive, than the reuse costs associated with a removed meter. The following reasons apply:

- When receiving a returned meter, ESPC has no way itself of knowing how it has been handled during removal and transportation. As ESPC would be responsible for the meter when reused, it would be liable for the accuracy and safety of its use. Therefore, unless ESPC can be given sufficient assurance from the party responsible for the removal and return of the meter that it is fit for purpose, ESPC would need to test the meter on its return, the cost of which alone would make it uneconomic to reuse. Even if sufficient assurance is given, ESPC will still need to carry out a brief inspection of each meter to check its general condition and asset details before being packaged for storage.
- If reused, the life span of the meter will be shorter than a new meter and so will require replacing sooner. This will result in the installation and other associated costs normally recovered over the period of a new meter not being recovered fully if the meter Installation charges to do so are not increased. Because ESPC has standard meter Installation charges this is not a practical option, and even if it were, it would increase

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another meter user's charges because an un-associated meter user had their meter replaced. This would clearly be inequitable. So, this under-recovery would appropriately need to be recovered as part of the Provision charge, reducing the value of the meter.

- When sent to site the meters are provided as a "kit" that includes for example the pipe-work, governor, and valves, so that all the required fittings to be installed are to hand. Providing these fittings separately is less cost-efficient. Upon return of a meter, these fittings may not be with the meter as they are part of the installation, therefore when the meter is repackaged these will need to be included to produce a kit ready for delivery to site. It should be noted that as an ad hoc purchase (as ESPC cannot predict its requirements and will need to order when meters are returned) the fittings will be significantly more expensive to ESPC than when supplied in bulk as part of a meter kit.
- The cost for administering the meter when returned includes taking delivery, logging the receipt of the meter, inspecting it, repacking it with fittings as a kit, storing of the meter kit, taking out of stock and despatching it, and administering a database system to manage the meters in these processes. There are also the related activities to consider, for example the ordering and storage of the fittings, the invoicing and payment requirements (to buy fittings, packaging material, delivery of meters, etc). None of these activities ESPC currently carries out, therefore all the costs associated with them (including the set up costs of IT systems, administration systems, storage and transportation, etc) are specific to the return and reuse of meters.
- Currently, the typical system for managing the ordering and delivery of meters to site is carried out through direct communication between a meter supplier and the company responsible for installing the meters. Because of this, for ESPC to reuse meters it will need to set up a method of overriding this system so that returned meters can be sent back out when required, on what would be an ad hoc basis. It should be noted that ESPC's process of reusing meters would be significantly more costly than a meter supplier's equivalent process to provide a new meter kit. Such a supplier's systems will be simpler, will have a more consistent and predictable work flow, and will benefit from economies of scale gained from the larger quantities involved.

### The Installation

To establish whether the installation can be reused, and if so, whether it can be reused economically, broadly the same issues as described for the meter were considered, however with one significant difference in that the installation cost includes:

- The labour to put the meter and associated apparatus in place.
- The administration and management costs associated with organising the installation and registration of the Meter Unit.
- For infill and I&C projects there is normally a pre-visit to the premises to agree the location of the Meter Unit before it is fitted. This is a cost associated with the initial installation of the Meter Unit.

This element of the installation is not a physical piece of apparatus that can be transferred for reuse and so is a capital cost that cannot be recovered on another site.

Taking domestic and small I&C installations as a specific case, it been established that even though these can be reused physically, from an economic standpoint there is no financial benefit in doing so. This is because the majority of the cost is for the labour and upfront work to install and the remaining value of the associated apparatus is too low to be economical to reuse (as described above).

Even for the medium size I&C installations, the majority of the installation is the labour cost to install, therefore for these units the associated apparatus is also not of a high enough value to reuse. It is only when you get to the larger I&C units does the associated apparatus become of high enough value to consider its reuse. However, in such cases ESPC then has the issue of whether it has a suitable site for its reuse. The larger the I&C unit is, the more specific will be the apparatus to the site's requirements, and so the more unlikely it becomes that ESPC will have a suitable site on which to reuse the governor and apparatus.

## **Appendix C: Residual Maintenance Costs**

The Maintenance element of the meter charge is to recover the ongoing operation and maintenance costs of the Meter Unit and ESPC's required profit for this element of the meter service. Should the meter be removed it must be considered whether there will still be some operational and maintenance costs that ESPC will be required to pay, despite the existence of a third party meter. ESPC has established that even though it no longer holds responsibility for the Meter Unit, there will still be some residual operating costs incurred as a result of that meter being connected to an ESPC gas network. For example:

- Managing the database requirements and other data flows associated with the third party meter owner.
- ESPC would consider that a portion of the business rates it pays should be allocated to the Meter Unit as it represents a significant portion of the capital investment made and income received for a connection.
- As a GT, ESPC is ring fenced and so is required to keep an amount equivalent to 6 months basic operational costs in escrow (or equivalent facility) which includes the operation of the Meter Unit. As this requirement cannot be transferred to the third party meter owner who does not have any ring fencing obligations ESPC would still retain the costs associated with the upkeep of the escrow amount.
- Although the new meter operator will take on the responsibility of providing an emergency service for the Meter Unit ESPC will still incur some costs dealing with emergency call outs to do with the Meter Unit. (For example where ESPC's emergency service provider has to provide a service for the Meter Unit that ESPC has to charge for to recover costs.)
- Because ESPC is the GT it has the regulatory requirement to be the meter provider of last resort and so must always maintain the ability to provide a meter service for all the meter points on its networks. This includes requests by shippers to provide a metering service and to take over the operation of the meter assets of a third party meter owner should they be unable to manage them themselves. This ability has an associated ongoing operational cost (e.g. database/systems, emergency cover, MAMCoP registration, technical support, etc) even if the Meter Unit is not actually owned and operated by ESPC.
- There will need to be an element of insurance paid for to protect ESPC from any incident caused by the Meter Unit even if the Meter Unit does not belong to ESPC. Additionally, ESPC will need to have an insurance policy in place to cover all Meter Units to enable it to comply with its obligation of meter provider of last resort should it be required.
- The upkeep of the meter box could require ESPC to incur costs as although some repair expenditure can normally be recovered from the property owner, this is not always the case.

It can be seen from the above points that the residual operating and maintenance costs that would be incurred by ESPC are primarily from its responsibilities as a GT. This demonstrates that unlike a third party meter owner that would no longer incur any operational costs if it were to cease to be the meter operator for a supply point, because ESPC is the GT it would retain some residual costs.

## **Appendix D: Modification of Metering Charges**

In response to the changing environment ESPC has reviewed its current metering charges to allow for greater flexibility, as described in this publication.

It was noted that NG splits out its metering charges into the three elements of the service provided as follows:

- Provision
- Installation

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- Maintenance

It was felt that to follow the same format as NG would better enable ESPC to detail its recovery of capital investment and costs should an ESPC meter be removed and replaced by a third party meter. It also allows ESPC do this in a way that is consistent with the other Gas Transportation companies within the ESP Gas Group, of which ESPC is one. Therefore it was decided that the ESPC metering charges should be split into the same three elements.

This change in the format of the metering charges has in no way changed the total charge for the ESPC metering service only the way that total is split up, nor has there been a change to the way they are increased with inflation each year. Therefore there has been no material change to the methodology, just the way the charges are presented.

### Original Formats

From the 1<sup>st</sup> April 2007 the metering charges using the original format were as follows:

#### Legacy Sites

Capacity Charge = 3.4592 pence/day  
Operational Charge = 0.8595 pence/day

For legacy sites the metering charges were based on the same format used for the transportation charges in that the:

- Capacity Charges are to recover the capital investment over an initial 20 year period, that can be extended by up to a further 5 years should the recovery of capital and the required return on that capital not be achieved in the first 20 years.
- Operational Charges are to recover the costs associated with the operation of the Meter Unit including overheads, the recovery of business start up costs and a profit element.

#### RPC Sites

Total Meter Charge = 3.6262 pence/day

For RPC sites the metering charges were not split into separate parts for the recovery of capital and operational costs.

### New Formats

As NG's charges were used as the original benchmark it was decided that the current NG charges would be a suitable starting point to split the charges into the three elements. To do this the same charges that NG uses for the Provision and Installation were used by ESPC, the remaining metering charge was then put into the maintenance charge. The charges have consequently been split as follows:

#### Legacy Charges

	Meter Charges	
	Pence per Day	£ per Annum
Provision	2.1175	£7.75

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Installation	1.4290	£5.23
Maintenance	0.7722	£2.82
<b>Total</b>	<b>4.3187</b>	<b>£15.80</b>

It should be noted that the Provision and Installation are the capital recovery elements of the charges that are equivalent to the original Capacity Charges. These two charges added together is 3.5465 pence/day, which is 0.0873 (2.5%) above the original Capacity Charge. Likewise the Maintenance charge is to recover the operational costs and so is equivalent to the original Operational charge. This charge is now 0.0873 (10.2%) below the original Operational charge. Therefore overall there has been a small re-allocation of the operational charges to the capital charges to facilitate the splitting into the three elements, by maintaining the same Provision and Installation charges as NG. This demonstrates that the original allocation of capital charges was closely aligned to NG's and the significant difference was the much higher operational costs. The difference in the operational costs has been put down largely to the recovery of the start up costs as the Legacy sites are from the early days of ESPC's development, subsequently the RPC charges (see below) have much lower operational costs.

### RPC Charges

	Meter Charges	
	Pence per Day	£ per Annum
Provision	2.1175	£7.75
Installation	1.4290	£5.23
Maintenance	0.0797	£0.29
<b>Total</b>	<b>3.6262</b>	<b>£13.27</b>

Taking the original RPC charge and allocating the same amounts to the Provision and Installation elements as NG's, leaves 0.0797 pence / day for the Maintenance. This implies that ESPC's operational costs are only 52% as much as NG's, which is not the case and in reality the Maintenance charge should be closer to NG's. However this is only a small discrepancy that does not make a material difference to the overall charging methodology, and is outweighed by the benefits of aligning them with NG's and the Legacy charges. Also it should be noted that as the original charge was within 2% of NG's total charge it demonstrates that the RPC meter charge was already closely aligned to NG.