

ES Pipelines Ltd
Connection
Charges
Statement



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1. INTRODUCTION



ES Pipelines Ltd, ESP Pipelines Ltd, ESP Networks Ltd and ESP Connections Ltd are Gas Transporters (GTs) licensed to convey gas to premises or to pipeline systems of other GTs connected to its pipeline system. References to ESP within this document should be taken to mean each of the four licenced GTs named above.

This Connection Charging Statement sets out the charges issued by ESP to shippers for the Provision of Connections to and from ESP Networks. It is prepared in accordance with the requirements of Condition 4B of ESP's GT Licence and the Gas Act 1986 (Gas Act). It sets out the current principles and methodology used by ESP when a request is received for a new or altered Connection to ESP's gas transportation system. It has been approved by Ofgem in accordance with Standard Condition 4B of the licence.

This document also sets out the processes and the terms and conditions applicable to the Connection service provided by ESP. It covers connections to ESP's networks only.

This Connection Charging Statement, and the methodology used, will be reviewed at least once annually and any proposed changes will become effective from the relevant date, following approval from Ofgem.

For more information on the content of this document, please contact ESP using the contact details below.

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2. DEFINITIONS

The following section sets out a list of defined terms used throughout the statement.

Abortive Visit Charge	Charges that apply to a Customer's connection offer, in the circumstances described in section 7 of this statement.
Additional Charges	Charges that apply to a Customer's connection offer, in the circumstances described in section 7 of this statement.
Adopt	The process by which ESP takes ownership of a new section of pipework or network laid by a third party subject to the works meeting industry standards
Alteration	Any change made to an existing Service and any associated equipment.
Capitalised Operational Cost	Charges that apply to a Customer's connection offer, in the circumstances described in section 7 of this statement.
Commercial Contribution	The financial contribution(s) towards Infill projects from an I&C Customer connecting to the new network.
Connected System Exit Point (CSEP)	The point(s) of connection between two GTs' networks.
Connection	A physical Connection to ESP's gas network, typically to an End User's premises or on to another GT's network.
Connection Agreement	The contract between ESP and a Customer requesting a Connection to ESP's network.
Connection Costs	The costs of a Customer's Connection work, which may include the cost of any required Reinforcement.
Customer	A person or organisation requesting Connection works.
Disconnection	The act of disconnecting a Connection, permanently preventing the flow of gas.
Domestic Load Connection Allowance (DLCA)	The contribution that ESP makes towards the cost of supplying and laying pipe in the first ten metres of land that is dedicated to public use. The allowance only applies where the premise is wholly or mainly used for domestic purposes and is situated within 23 meters of a Relevant Main.
End User	An individual or organisation that consumes the gas conveyed through ESP's pipeline system.
ESP	Individually or collectively the licenced GT companies ES Pipelines Limited, ESP Connections Limited, ESP Pipelines Limited, and ESP Networks Limited.
ESP Capital Investment	In relation to an Infill Project, the investment made by ESP in new network assets.
Far Side Connection	Where a Service to a premise is connected to mains that are located on the opposite side of the road to the location of the Meter Point.
Future Operating Costs	Future costs that ESP expects to incur in order to maintain its gas network or a new Connection. This maintenance includes the repair or replacement of assets.
Gas Industry	A scheme developed to allow Utility Infrastructure Providers (UIPs) to carry

Registration Scheme (GIRS)	out installation, commissioning and Connection of gas Mains and services as well as the Alteration and Disconnection of services to be adopted by Gas Transporters.
Gas Transporter (GT)	Companies licenced by Ofgem to provide and operate the pipelines through which gas is transported to End Users.
Gas Distribution Network (GDN)	A licenced GT appointed to operate the gas network in a specific regional area.
GT Licence	A licence granted by Ofgem to GTs.
Health and Safety Executive (HSE)	Great Britain's independent regulator for work-related health, safety and illness.
Increased Connection	Connection works to increase the capacity of the supply of gas to a premise.
Independent Gas Transporter (IGT)	All licenced Gas Transporters other than the GDNs.
Industrial & Commercial (I&C)	Used to describe either an End User engaged in, or premises used for the purposes of, organisational activity, manufacturing processes and/or business enterprise.
Infill Project	An extension of the gas network in order to provide a Connection to two or more properties built more than six months prior to their Connection to the gas network. An infill project requires the installation of new Mains.
Isolation	The act of disconnecting a Connection, temporarily preventing the flow of gas.
Kilowatt-hour (kWh)	Kilowatt-hour is the unit of energy most commonly used for recording energy consumption.
Meter Housing	The purpose built box or shelter for housing gas Meter Units. In domestic properties these are typically recessed, surface mounted, semi-concealed or universal.
Meter Point	The physical offtake point on ESP's network at which a Meter Unit is installed, enabling the consumption of gas by an End User.
Mains	Pipes that typically transport gas to two or more properties, which individual Services connect to.
Minimum Scheme	The minimum cost and design of a Connection needed to meet a Customer's requirements.
Near Side Connection	Where a Service to a premise is connected to Mains that are located on the same side of the road to the location of the Meter Point.
Net Present Value (NPV)	The value of an expected income stream determined as of the date of valuation.
Network Code	ESP's network code, as required by condition 9 of its GT Licence, comprising ESP's individual network Code, the framework agreement and the Independent Gas Transporters' Uniform Network Code (IGT UNC). These can be found here .
Network Exit Agreement (NExA)	Where required by ESP, the agreement between ESP and an End User or another GT that permits the offtake of gas from ESP's network.

New Connection	The design, provision and installation of gas network infrastructure to facilitate the Connection of a new Meter Point.
Ofgem	The Office of Gas Electricity and Markets. The independent authority responsible for the regulation of the onshore gas and electricity markets in Great Britain.
Operating Costs	The costs relating to the operation ESP's Gas Transportation System.
Peak Load	The amount of gas passing through a Meter Point or CSEP at the point in a calendar year where gas usage is at its maximum for that Meter Point.
Recoverable Cost	The total of the Additional Charges for the infill project after deduction of ESP Capital Investment, the Commercial Contribution (and Other Contributions where applicable) subtracted from the Total Mains Network Cost.
Reduced Connection	Connection works to decrease the capacity of the supply of gas to a premise.
Reinforcement	Physical works to build additional capacity into the ESP system, to enable an increase in the offtake of gas downstream of the Reinforcement works.
Relevant Main	A distribution main operated by a Gas Transporter which is being used for the purpose of giving a supply of gas to any premises in its authorised area at a rate not exceeding 2,196,000 kWh per annum, except any pipe which is not relevant in accordance with section 10(13) of the Gas Act.
Self-Lay Connection	Where approved by ESP, a Connection where the Customer has elected to appoint their own contractor to undertake all or part of the necessary work.
Service	Pipes connected to a Main, with the purpose of transporting gas to a single End User.
Standard Connection Charge	Charges that apply to a Customer's connection offer, in the circumstances described in section 7 of this statement.
Supply Contract	A contract between a gas supplier and an End User for the provision of Gas to a premise through a Meter Point.
Total Mains Network Cost	All costs associated with the installation of the gas mains for the network.
Utility Infrastructure Provider (UIP)	An organisation which designs and constructs gas network infrastructure for adoption by a Gas Transporter.
Very Large Daily Metered Consumer (VLDMC)	A consumer who consumes more than 50 million therms per annum where one therm equals 29.31 kWh.

3. Who Can Make a Connection?

ESP will comply with any reasonable request from a Customer to connect a premise to its gas transportation system, where it is economical to do so. If a property is situated within 23m of an ESP Relevant Main then ESP must offer a Connection.

A Customer may opt to construct some parts of the Connection, which can be installed by themselves or a contractor working on the Customer's behalf. Such work, normally undertaken by a Utility Infrastructure Provider (UIP), is referred to as "Self-Lay". An appropriate agreement between ESP and the party undertaking any Connection work on ESP's network must be in place prior to the design phase of any work. ESP has a duty to adopt any Self-Lay pipeline which connects a premise expected to consume 2,196,000 kWh per annum or less. For Self-Lay pipelines which connect premises expected to consume more than 2,196,000 kWh per annum, ESP will only adopt such pipelines where it is economical to do so.

The provision of gas distribution Connection services is open to competition. Details of independent Connection providers who hold Gas Industry Registration Scheme (GIRS) membership can be obtained from the following web site:

- <https://www.lr.org/en/utilities/gas-industry-registration-scheme-girs/>

4. Types of Connection Work

The following section describes the different types of connection work that a Customer may request from ESP.

Single Point Connection – A Connection onto ESP’s existing gas network that will feed a single Meter Point. A Single Point Connection can be either to Domestic or I&C premises. There are two types of quotations for Single Point Connections:

- **Standard Quotations** are provided for Connections where a desktop quotation is produced based on set rates, resulting in a standard cost. ESP will use this where:
 - The cost/benefit of using standard designs is considered to be cost effective;
 - The standard designs have been produced in accordance with the principles and methods of this statement; and
 - The resulting standard designs do not result in charges which place undue discrimination on any ESP Customer.
- **Non-standard Quotations** are provided for Connections where a bespoke quotation is required. In many cases, a Non-standard Quotation will take longer to produce than a Standard Quotation.
- **Infill Connection Projects** - These are connections where ESP has extended the gas network by laying new gas Mains to premises where there’s currently no gas. This is expanded upon under “Infill Project Connection Charges” on page 15.

Alteration – There are two types of Alteration to a Service. Any Alteration work can comprise one or both of the following:

- **Relocation** is an Alteration to the existing gas supply so the position of the Meter Point and/or the path the service takes to the Meter Point are altered;
- **Service Upgrade** is where a consumer already has an existing Connection but wishes to increase their Peak Load to a level that the existing Service cannot accommodate, ESP will make a New Connection using a pipe with a larger diameter to accommodate the requested increased gas load. ESP may apply allowances to a Service Upgrade if it is appropriate to do so.

Disconnection – This is the permanent disconnection from the ESP Network, preventing the flow of gas to the Meter Point. ESP will disconnect Services that are fed from ESP Networks when requested to do so by the Customer. If the Customer is not the person who owns or occupies the premises, or a person acting as their agent, ESP will seek permission from the owner prior to any Disconnection going ahead. If there is a Meter Unit attached to the Meter Point, then permission must also be obtained from the relevant supplier, prior to the Disconnection taking place.

If ESP own the gas meter that is connected to a Meter Point scheduled for Disconnection, then the Meter Unit will also be disconnected during the visit.

If the Meter Unit that is attached to a Meter Point scheduled for Disconnection is the property of a third party, then the Meter Unit must be disconnected leaving the service outlet capped prior to the scheduled Disconnection. Failure to remove a third party owned Meter Unit prior to the scheduled Disconnection may result in the cancellation of the works and an Abortive Visit Charge.

CSEP Connection – A CSEP Connection describes a Connection to ESP’s network by another GT for the purposes of building and operating a downstream gas network. The CSEP Connection process is triggered by an application from another GT to connect to ESP’s network.

Network Reinforcement – Reinforcement is typically required as a result of the need for CSEP or Meter Point works where the existing upstream network is not able to meet the Peak Load required by the proposed CSEP or Meter Point.

Reinforcement work is replacement of sections of the upstream network to support an increased load. All the costs associated with Reinforcement works that are required to increase the gas pressure at an existing Meter Point or CSEP will be charged to the Customer requiring the increase.

5. Connection Application Process

■ Step 1 - Apply

Any party seeking a new, Increased or Reduced Connection to an ESP gas network should apply in writing by contacting ESP at:

ES Pipelines Ltd
Bluebird House
Mole Business Park
Leatherhead
KT22 7BA

Email: Meterworks@espug.com

To help applicants provide the necessary information, ESP requires the use of standard forms. These forms are all available under the "Services" section of ESP's website - www.espug.com/services/.

■ Step 2 – Acknowledgement

ESP will acknowledge receipt of the application and if required request any additional information as soon as practicable (normally within 5 working days).

■ Step 3 – Connection Offer

On receipt of all necessary information, a Connection offer will be sent to the applicant, which will specify:

- Terms for Connection to the network;
- Terms for ESP to carry out all Connection work (if requested); and,
- Any other relevant information, if required.

ESP will endeavour to provide the proposal within an appropriate timescale for the work required. ESP's standards of service are below:

Nature of Connection Work	Quotation Delivery Standard of Service
Single Point Connection (Domestic)	6 days
Alterations & Disconnections	11 days
Non-standard Single Point Connection	11 days
Single Point Connection (I&C)	21 days
CSEP Connection & Network Reinforcement	28 Days

■ Step 4 – Connection Agreement

By signing the Connection Agreement, the Customer will enter into a contract with ESP. The Connection Agreement sets out both parties' rights and obligations regarding the Connection and the required works.

■ Step 5 – Connection Appointment

Once ESP is in receipt of the signed Connection Agreement and the necessary payment for the works, ESP will agree an appointment date with the Customer. ESP's engineers will be on site on the agreed date(s) to carry out the agreed Connection work.

6. Terms & Conditions

Payment Terms

ESP will usually require payment for all Connection work in full and in advance, unless otherwise agreed. There may be occasions when the work will take place over an extended period of time or multiple stages. On these occasions a schedule of charges and allowances will be calculated and agreed before any work is started.

If any preparatory work is required prior to the Connection being made, ESP will agree with the party seeking the Connection the:

- Relevant preparatory costs; and
- The apportionment of any agreed preparatory costs prior to the commencement of any works.

All preparatory costs will be levied in advance. If requested, ESP will provide a detailed breakdown of the costs of the Connection.

Charges for any preparatory work carried out by ESP are considered non-refundable if the resulting Connection works are carried out as a Self-Lay scheme or by any parties other than ESP.

If the preparatory work includes a discount regarding any applicable allowance, then ESP has the right to request that the allowance be paid to ESP by the person requesting the original Connection, as ESP will no longer benefit from the transportation income that the allowance was based on.

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.

Modification of Charges

There may be occasions when the methodology and/or Connection charges will need to be modified before the annual review (as described in 1: Introduction), on these occasions all reasonable endeavours will be made to notify shippers and any other relevant parties before the changes become effective. Typically these may include the following:

- When directed to do so by Ofgem;
- Following changes in the regulations, or the law; or
- Following unforeseen expenses and significant changes in the economic environment.

Standards of Service

ESP has outlined its standards of service and this can be found in ESP Standards of Performance (Code of Practice), which is can be found [here](#). If a Customer believes that ESP has not met one or more of the standards set out in its Code of Practice, please write to ESP at the address found in Section 1 as a Customer may be owed compensation. If a Customer is not satisfied with how ESP has handled a complaint, and an agreement with ESP cannot be reached within a reasonable time or the dispute has reached 'deadlock', a Customer may ask Ombudsman Services (whose details are given in Appendix E) for assistance in resolving the matter.

Self-Lay Connections

Where a Connection is adopted by ESP, the assets installed between the existing network and the new meter point shall be owned, operated and maintained by ESP. ESP is entitled to use any adopted assets for the purpose of providing a gas Connection to others.

In circumstances where a party has opted to carry out the Connection as a Self-Lay operation, ESP reserves the right to request that:

- Additional Connection points are installed along the length of the pipeline;
- The capacity of the pipeline is increased (i.e. Reinforcement is undertaken);
- The pipeline is re-routed;
- The parties undertaking the Self-Lay works provide evidence that they are qualified for such tasks; and
- Any other work required to enable ESP to fulfil its duties.

Additional Terms and Conditions

ESP may agree to provide additional work for the Customer in the course of providing a gas Connection. This may include laying electricity cabling alongside the gas pipe or providing work Downstream of the gas meter outlet. The terms and conditions for any works not relating to the gas Connection are not covered by this Connection Charging Statement. There may be elements of the work (e.g. excavation and reinstatement) which will be apportioned to the work for the gas Connection.

A connected party must have a Supply Contract in place with a licenced gas supplier prior to gas being offtaken from ESP's transportation system. The supplier must have an appointed shipper which has agreed to the terms and conditions to enable it to ship gas through ESP's transportation system. A Supply Contract is not necessary where only a Connection is required and no meter is to be installed.

ESP reserves the right to require a Customer to enter into a supplementary agreement, for example a Network Exit Agreement (NExA).

7. Connection Charging Methodology

The following methodology will be used when calculating the cost of a Connection to ESP's network. These principles will be incorporated, where it is appropriate to do so, in the terms and conditions of the connection offer or the Connection Agreement provided by ESP.

What are the Different Types of Charges?

With respect to a Customer's Connection request, there are a number of charge components that, depending on the nature of the request, may apply. The table below summarises these charges:

Type of Connection Charge	Apply to:
Standard Connection Charges	<ul style="list-style-type: none"> ▪ Connections that meet all the following criteria: ▪ Is restricted to Low or Medium pressure tiers; ▪ Has a maximum AQ of 73,2000; ▪ Has a maximum service length of 23 Meters; ▪ Has a maximum Service diameter of 32mm; ▪ The existing main to connect to has 1.2m or less depth of cover; and ▪ That no Reinforcement is required in order to make the Connection.
Additional Charges	<ul style="list-style-type: none"> ▪ Late joiners to Infill Projects; ▪ Some cases of increases to supply capacity; or ▪ Load evaluation for Connections made by other GTs.
Capitalised Operational Costs	Where some or all of the Future Operating Costs are not to be recovered through transportation charges.
Infill Project Connection Charges	Infill Projects, where ESP has extended the gas network by laying new gas Mains to premises where there is currently no gas.
Disconnection, Isolation and Reconnection Charges	Disconnections, Isolation or Reconnection work.
Self-Lay Connection Charges	Where the Customer seeking the Connection chooses to undertake all, or part, of the Connection work themselves or through a contractor working on their behalf.
Abortive Visit Charges	Where ESP, or anyone acting on ESP's behalf, arrives on-site and ESP deems that it is not possible to complete all, or part, of the Connection work.
Reinforcement Charges	Connection requests that require work to upgrade sections of the upstream Network.
CSEP Charges	Only apply to connections that include a Connection to an upstream Network

The following subsections describe the methodology used to calculate each of the Connection charges summarised above.

Standard Connection Charges

1. The charge will reflect ESP's estimated costs of the work to be done by ESP and of the assets to be installed by ESP for the specific benefit of the party seeking the Connection.
2. ESP will always calculate charges for all Connection services on a case by case basis to maximise cost reflectivity. The component costs of connection services are described in Appendix A.
3. The work and the charge payable for a Connection will depend on the requirements of the party seeking the Connection and on the nature of the gas distribution system at the point of Connection as well as other characteristics relevant to the Connection, including the effective capacity and pressure level of the relevant part of the network. A statement showing network capacity and Peak Loading on specific parts of the system and other relevant information will be provided in relation to the requirements of the party seeking the Connection on request, subject to a charge dependent on the amount of work involved.
4. ESP reserves the right to decide the terms applicable under extraordinary circumstances or where ESP has reasonable grounds for concluding that the proposed Connection would reduce the security of the system to a level below the standard required by the Gas Act, and/or the guidelines used by ESP.
5. The costs to be recovered in the charge for Connection will be determined from the estimated costs of the Minimum Scheme which are designed to meet the requirements of the Connection and for the sole benefit of the party being connected, consistent with current industry standards and legislative requirements and also subject to the specifications and standard sizes of equipment used by ESP.
6. Where the Connection is designed and/or the assets to be installed are of greater size and capacity than the Minimum Scheme required for that Connection, the costs in excess of that Minimum Scheme will normally be borne by ESP. Where the Minimum Scheme is capable of accommodating additional Connections and the relevant parties agree at the time of application to pay a share of the costs of Connection then the costs of the Connection will be apportioned accordingly.
7. Where additional design pressure is required by the Customer (i.e. above the minimum necessary for the required capacity) any work required to provide this enhancement is fully chargeable.
8. The cost of materials and labour will be calculated on an individual basis through a bespoke feasibility or conceptual design study based on the reasonable expectation of the costs likely to be achieved by an independent tender plus any expenses and overheads incurred by ESP.
9. Reinforcement of the existing system required for a new or Increased Connection will be chargeable. In addition, any charges required for Reinforcement of the GT's network to which ESP's Network is connected will be based on the terms specified by the relevant GT.
10. ESP may pay an allowance towards new and Increased Connection work, which includes any Connection work carried out as part of a Self-Lay scheme. This allowance will normally be based on the expected additional future income from the party seeking the Connection and the methodology used to calculate the allowance is detailed in the section "Methodology Used to Calculate Allowances". To calculate the allowance ESP may have to charge for any work required to carry out the analysis (e.g. administration, design work, site visit).
11. Where a Connection is requested that ESP considers to be of an unconventional standard compared to those normally provided by ESP, the charges, terms and conditions described in this Connection Charging Statement may not apply. Parties seeking such a Connection should contact ESP for guidance and the approval of Ofgem and the HSE may be required for Connections which do not meet ESP's minimum standard of security.

12. The calculation of gas consumption and Peak Load in respect of the Connection, and the treatment of any information used in the calculation of gas consumption and Peak Load will be done in consultation with the party requesting the Connection. ESP reserves the right to make the final decision on the gas consumption and Peak Load data used in the calculation of Connection charges, allowances and Additional Charges.
13. Ongoing use of system charges recover the costs associated with operating (including business rates) and maintaining Connections. Where full recovery of these costs is not expected through the ongoing use of system charges, then either:
 - The charge for Connection will include ESP's estimate of the capitalised cost of the future operation and maintenance costs that it expects will not be recovered by the ongoing transportation charges; or
 - Special arrangements may be agreed with ESP for the recovery or treatment of these costs.
14. For some categories of Connection (typically low value domestic Connections, zero to twenty three metres in length) a Standard Charge is applied. The reason for this is that although the work for an individual Connection which is shorter than average may be less expensive than the Standard Charge, once the charges for the work to compile and produce a bespoke quotation are included, it is generally found that the resulting Connection Charge is higher than the Standard Charge.
15. For some categories of Connection (for instance where the costs for highway work are not easy to extract from the Standard Connection Charge used by contractors) a standard allowance is applied. The reason for this is that although the DLCA for an individual Connection may be more than the standard allowance, once the extra ESP and contractor administration charges for the work to compile a bespoke allowance quotation (and also it is likely a bespoke Connection quotation will be required) are added to the Connection Charge, the overall Connection Charge is higher than if the lower standard allowance had been used.
16. The Connection Charge may include for the provision and installation of the Meter Housing. On completion of the Connection works the ongoing maintenance and upkeep of the Meter Housing becomes the responsibility of the Customer. There may be occasions where the Customer may want, or be required, to provide the Meter Housing. In such cases this work will be done in full consultation with ESP and ESP will only accept Meter Housing it deems to be suitable.

Additional Charges

17. Charges for a Connection are based upon the costs of the assets installed. In certain circumstances, the party seeking Connection will be required to make a payment in respect of assets which have been installed previously and which are used for the purpose of giving the supply to that party, these are referred to as "Additional Charges". These Additional Charges will be site specific to take into account individual circumstances. As a guide the following are examples of where it may apply:
 - A section of network was installed in anticipation of the party seeking Connection, as it was more economical to install it while other work was being undertaken, than to wait for the party's application for Connection; or
 - a proportion of homes in a village financed a Mains pipeline network to bring gas to the village as part of an infill project. It is considered appropriate to expect other homes in the village that connect onto the Mains at a later date to contribute to the installation of this Mains pipeline network. How these infill projects are treated regarding Connection charges is described in more detail in the following section.

As a result, the Additional Charges calculated would be primarily based on the contributions already made towards the network within the area by ESP, End Users on the network, or other parties that provided a contribution.

18. The Additional Charges will only apply for designated areas and for a specified timescale. These designated areas, and the Additional Charges applicable to them, are available upon request.
19. The Additional Charges will still be applicable even if ESP is not employed to carry out the work. Where the cost of the work is used in the calculation of the Additional Charges, ESP will calculate the value of the cost of the work in consultation with the party requesting the Connection. ESP reserves the right to make the final decision on the value of the cost of the work.
20. Where Additional Charges are applied, the standard allowances as described in the section “Methodology Used to Calculate Allowances” may not be applicable. Any modification to the treatment of these allowances will be defined with the Additional Charges described in Appendix D.
21. Where the connecting party is a GT, any applicable Additional Charges will be calculated on an individual basis as it will need to take into account additional factors such as the layout of the proposed network and allocation of costs.
22. Where appropriate, additional Charges may also apply to any requests to increase the capacity requirement of an existing Connection because the Connection will be using a greater proportion of the initial investment and costs incurred. Should a decrease in the capacity of an existing Connection be required, no form of rebate will be provided as ESP is unable recoup any initial investment made by it for the original capacity. This requirement for Additional Charges for increases in capacity will not normally be applied to individual domestic premises.
23. On a typical new network for a housing development, ESP only invests based on the number of Connections and does not make any contribution to the cost of the main and procuring additional capacity, so ESP does not need to recover this cost. With respect to Connections made by another GT to these networks, ESP will apply a standard flat rate Connection charge to allow for load evaluation. If the work required to facilitate such a Connection is considerably more than this flat rate (i.e. if a feeder main is required), then this will be assessed and charged on an individual basis. ESP will also charge for any Reinforcement work that may be required.
24. Where Additional Charges are for assets not yet installed (for example, the Network has not yet been completed) then the Additional Charges will be based on the anticipated relevant costs for these assets not yet installed. The anticipation of these costs will be on a reasonable endeavours basis, but ESP retains the right to determine all the costs involved.

Capitalised Operational Costs

25. As described in Section 4 “Types of Connection Work”, where some or all of the Future Operating Costs are not to be recovered through its transportation charges then an Additional Charge is levied on Connections to which these Operating Costs apply. It is ESP’s sole decision as to which Connections these additional Operating Costs apply.
26. Where these Operating Costs become significantly higher than those anticipated by ESP when the Capitalised Operating Costs are calculated, ESP reserves the right to recover these additional operational costs through a future Connection charge from those parties benefiting from the Connections (including from other GTs). This is normally done in consultation with Ofgem. Please note the higher Operating Costs may be a one-off occurrence or a long-term trend.
27. If the potential for these Operating Costs to escalate is in ESP’s view significant, then ESP may apply an uplift to reflect the risk to ESP.
28. Examples of Future Operating Costs that may be taken into account for paragraphs 25, 26 or 27 above includes, but is not limited to, the following considerations:

- Potential network governor costs;
- Provision for replacements;
- Potential costs associated with easements;
- Emergency cover cost increases;
- Third party damage;
- Increases in business rates;
- Insurance costs;
- High inflation rates; and
- Changes in regulation.

It may also include other associated operational costs, for example, Network Code maintenance costs, general office overheads, IT system upgrades.

Infill Project Connection Charges

For an Infill Project, any charges to be paid for each Connection will be calculated as follows:

29. The cost of installation and provision of new Mains, connecting the new Mains to existing Mains, installing pressure controlling apparatus (not part of any Meter Unit Installation) and all other cost associated with the new Mains.
30. As part of its initial evaluation, ESP will conduct a survey of the area to be supplied to assess the number of premises likely to connect within twenty years of the new Mains being laid. It is this number which is used to apportion costs, not the total number of premises in the area.
31. ESP will take into account the income it anticipates the Infill Project will generate for it within twenty years of the new Mains being laid, a proportion of this income is used to reduce the Additional Charge as it allows ESP to invest its own capital in the Infill Project (ESP Capital Investment). How ESP calculates the ESP Capital Investment is done at the sole discretion of ESP. In doing so, ESP takes into account (but is not limited to) such factors as required rates of return, Operating Costs and other capital investment required by ESP in the Infill Project (including the DLCA).
32. There may also be an I&C customer that is likely to consume more than 2,196,000 kWh per year within the Infill Project area that requires a Connection while the new Mains is being installed. I&C customers may also provide a contribution towards the new Mains; the contribution is subject to commercial negotiation between the Customer and ESP. The total amount of the contribution(s) from the I&C Customer(s) where provided is the "Commercial Contribution".
33. In addition, there may be other parties who are willing to contribute towards the new Mains. Examples of these parties are Councils, Housing Authorities and Government bodies providing grants. The total of these contributions is the "Other Contributions".
34. The ESP Capital Investment, the Commercial Contribution and the Other Contributions (where they are applicable) are then subtracted from the Total Mains Network Cost and the remaining amount "the Recoverable Cost" will be the total of the Additional Charges for the Infill project.
35. The Recoverable Cost will then be divided equally by the number of premises which are likely to connect within twenty years of the new Mains being laid. This amount is the Additional Charge which will be added to the Connection Charge for each Meter Point when they are connected.
36. Subject to the Gas (Connection Charges) Regulations 2001 as amended, the Additional Charge is applied to all Customers connecting in the Infill Project area for a period of not more than twenty years until the Recoverable Cost of the Mains is fully recovered or the Infill Project closes, whichever is earlier.

37. The twenty year period starts on the day the Relevant Main is commissioned.
38. In an Infill Project the cost of the Service will be charged on an individual basis in the same way as any other Connection. Potential consumers within an Infill Project will benefit from the Domestic Load Connection Allowance, where this is applicable.
39. Where an I&C consumer, likely to consume more than 2,196,000 kWh per annum, is situated within the Infill project, and declines to connect at the time when Mains are laid then that consumer will not be permitted to connect to the Infill Project unless:
 - There will still be sufficient capacity to enable the remaining Connections within the Infill Project with an AQ below 2,196,000 kWh which may request a Connection, to take a Connection without there being any requirement for any additional Reinforcement, or if not then;
 - Either the twenty year Infill Project period has expired; or
 - The I&C consumer funds sufficient Reinforcement to enable the remaining Meter Points with an AQ below 2,196,000 kWh within the infill project, which may request a Connection, to be connected without there being any requirement for any additional Reinforcement within the twenty year period.

Disconnection, Isolation and Reconnection Charges

40. Where a temporary Isolation of a Meter Point is carried out for the purposes of enabling Connection work to be carried out, it is considered to be part of that Connection work and not a Disconnection.
41. Disconnections can only be carried out by ESP as set out in the ESP Network Code; therefore, Disconnections cannot be carried out as a Self-Lay scheme. Disconnections cannot be carried out without the permission of the registered shipper for the Meter Point.
42. The costs to be recovered in the charge for Disconnection will be determined from the estimated costs of the Minimum Scheme which would be designed to meet the requirements of the Disconnection, consistent with current industry standards and legislative requirements and also subject to the specifications and standard sizes of equipment used by ESP.
43. Permanent Disconnection or temporary Isolation (and subsequent reconnection) at the request of a shipper, supplier or Customer will be at the expense of that shipper, supplier or Customer.
44. If works are unable to proceed as a result of the presence of a third party Supply Meter Installation (i.e. where ESP is not responsible for it), or because outlet pipework has not been purged, ESP will seek to recover its reasonably incurred costs.
45. Permanent Disconnection or temporary Isolation (and subsequent reconnection) resulting from the failure by a shipper, supplier or Customer to comply with the terms of their use of system or Connection Agreement as the case may be, will be at the expense of that shipper, supplier or Customer.
46. ESP retains the right to remove its equipment from an isolated Meter Point. Assets that are not cost effective to recover (e.g. buried pipes) will be made safe and normally left on site (unless they are required to be removed for safety or legal reasons). If the Customer requires ESP to remove them, the cost of removal will be payable by the Customer. All such equipment will remain the property of ESP until otherwise agreed in writing by ESP.
47. When a Meter Point is Isolated but it remains physically connected to ESP's network, it may need to be physically disconnected from the ESP network within a set period of time, as defined in ESP's Network Code. If ESP is required to, or is requested to take such actions to disable the flow of gas as required by its Network code, the full costs of taking such actions, including internal administration and technical work, will be charged to the party that requested the Disconnection, unless otherwise agreed by ESP.

Self-Lay Connection Charges

48. A party may opt to carry out those parts of the Connection which can be undertaken by themselves or a contractor working on their behalf providing the party has consulted with, and received approval from, ESP prior to undertaking the work. If deemed necessary by ESP, an appropriate agreement with ESP must be entered in to by the Customer and/or the party undertaking the Connection work.
49. Where ESP is asked to Adopt gas pipelines installed as a Self-Lay scheme, ESP applies a charge for the work required to be undertaken by ESP, or third parties employed by ESP, in the adoption of the gas pipeline.
50. Charges for adopting and taking ownership of assets installed as part of a Self-Lay scheme form part of the Customer quotation and are payable on acceptance of the quotation.
51. Where ESP is required to provide a Connection point to its Network for the Self-Lay scheme to connect to, ESP reserves the right to require that the party requesting the Connection point carry out the excavation and backfill (this includes obtaining suitable permissions) for the Connection point.

Abortive Visit Charges

52. Where ESP, or anyone working on ESP's behalf, arrives on-site and cannot complete all, or part, of the Connection work, ESP will charge the Customer for the abortive visit and any associated costs if the Customer is deemed to be at fault.
53. In all instances where an Abortive Visit Charge is applied, ESP will only recharge costs reasonably incurred by ESP and any party working on behalf of ESP.

Reinforcement Charges

54. An upgrade to an upstream section of the gas network required to enable the Connection of identified new consumers, or to permit an increase in flow rate in respect of an existing consumer, is known as Reinforcement.
55. ESP apportions all costs associated with any required Reinforcement to the customer requesting the new or Increased Connection. Such costs will be calculated on a time and materials basis and charged through to the Customer on a 'pass through' basis.
56. If the Customer insists on making a Connection at another point which represents a sub-optimal system development solution, then ESP will charge the full cost of any associated Reinforcement. All costs associated with Reinforcement incurred by any upstream GTs as a direct result of a Customer's Connection will be chargeable to the relevant Customer.
57. Where ESP has already planned and financially approved general reinforcement of a distribution network system which is to be installed prior to the winter following connection of the new load request, and which obviates the requirement for specific reinforcement, ESP shall fund the full cost of the general reinforcement. Where a general reinforcement project that has already been planned and financially approved has to be upsized prior to construction, only the additional costs necessary to meet the customer's load shall be deemed specific Reinforcement.
58. All connections with effect from 1 October 2011 must be for firm transportation rights. Where firm capacity can't be delivered by ESP in full within the timescale requested, ESP may agree to connect sooner on an interruptible basis until firm capacity can be delivered. The number of days of interruption will be determined by ESP in order to meet ESP's transportation licence obligations. Compensation may be paid to the shipper to reflect the fact that firm transportation capability won't be available.

59. Costs associated with Reinforcement work that are required to increase the gas pressure at an existing Meter Point or connected system exit point (CSEP) will be charged to the Customer.
60. Where there's a requirement for a higher pressure than that derived by the methodology, associated additional costs will be payable by the Customer.
61. To ensure efficient system development, it is sometimes necessary to upsize a connection or reinforcement pipe beyond that which is required for the load. ESP will do this when the anticipated cost of subsequent Reinforcement is greater than the predicted cost of upsizing apparatus, taking into account the time value of money and the probability that subsequent reinforcement will be required.
62. ESP will fund the reasonable marginal cost of upsizing apparatus that ESP adopt.
63. Where any specific reinforcement involves work that is of sufficient complexity (see Appendix D) the person requesting the connection, or increase in load which gives rise to the reinforcement, must pay for a design study prior to receiving a quote. If the reinforcement subsequently proceeds with no substantive change to the load or original design, the cost of the design study may be reimbursed.

CSEP Charges

64. ESP has no obligation to offer a service to extend its system to a CSEP. However, ESP may provide a design and quotation to lay a main infrastructure only. Where pressure reduction equipment is also to be installed to feed a new mains infrastructure, ESP may include future operating costs in its charges. ESP does not offer a service to complete part of a system of pipes that is being constructed, or that is proposed to be constructed, by a UIP.
65. ESP reserves the right to require a customer to enter into a NEXA, Network Entry Agreement (NEA) and/or Storage Connection Agreement (SCA) as appropriate. Network Exit Agreements are required to be in force in respect of:
 - Any CSEP;
 - Unless ESP otherwise determines in any case, any Meter Point comprised in a VLDMC Meter Point;
 - Each Inter-System Offtake; and
 - Each Seasonal Large Meter Point.
66. ESP reserves the right to issue a charge to validate the Connection design for all CSEPs to its networks in order to ensure the Connection design meets the quality set by current industry standards and legislative requirements, and is subject to the specifications and standard sizes of equipment used by ESP.
67. The charges for work undertaken by ESP to evaluate, process and approve CSEP Connection requests are based on an hourly charge out rate, for design staff. Rates for internal and externally outsourced staff may differ. Where external resources are required these charges will be levied according to the cost to ESP, and overheads will be applied at the appropriate rate.
68. Wherever ESP is able to resource design staff internally, ESP bases the charge on an average of 4 hours at the prevailing rate at the time of the Connection request is received.

Methodology Used to Calculate Allowances

69. Allowances are typically based upon the present value to ESP of the future usage of the system and the regulated transportation income it expects to realise from the new or increased gas supply from a Connection point on ESP's existing gas network. The Domestic Load Connection Allowance (DLCA) is an exception to this and is based on the costs incurred by ESP for supplying and laying the relevant section of an eligible Customer's Connection.

Domestic Load Connection Allowances

70. There is a statutory DLCA, which applies to all domestic premises consuming 73,200 kWh per annum or less which are within 23 metres of an ESP main. This allowance is applied so that the first 10 metres laid within land that is dedicated to public use outside the consumer's premises will be free of charge, which includes the cost of the final Connection and is subject to the following;

- The premises are used or proposed to be used mainly or wholly for domestic purposes;
- There is no existing gas supply to the premises;
- The individual premises does not form part of a multiple development; or
- The individual premises does form part of a multiple development, however, the party owning or occupying each premises can be identified (evidence of the owner or occupier will be required). Note that housing developers, landlords or an agent working on behalf of a developer or landlord are not eligible; and
- Any exclusions as defined in the Gas Act, Utilities Act 2000, ESP's GT licences and the Gas (Connection Charges) Regulations 2001 as amended.

(Note: the DLCA cannot be used in conjunction with the Infill Network Extension Scheme allowance)

71. Calculating a DLCA on an individual basis is not considered cost efficient for the consumer for the following reasons:

- The prices provided by a contractor are for a complete job that encompasses all aspects of the work and does not have the work done in land dedicated to public use priced separately;
- To split this element of the work out is not normally possible with any reasonable accuracy as contractors will provide a standard quote for Connection "types";
- This is because for a contractor to provide a bespoke quotation (particularly where they have to also split out the costs with reasonable accuracy) for each individual Connection is not a cost effective method as it entails too many additional costs (e.g. extra design and administration work, a pre-site visit). Therefore, any benefit in cost accuracy is lost because the Connection Costs will increase significantly. It should also be noted that different contractors have different ways of allocating costs which means there will be no consistent method used to split out the work done in land dedicated to public use.; and
- To provide a bespoke allowance cost will also incur additional costs for ESP as this will require more administration work than when a Standard Connection cost is used as it requires an analysis of the costs to establish which should be allocated to work in land dedicated to public use.

72. ESP considers that it is more cost efficient to calculate a Standard Domestic Load Connection Allowance (SDLCA). In the calculation of the SDLCA it is recognised that a consumer who requires a road crossing would receive a higher DLCA, as more of the work will be in the highway compared to a consumer whose property is on the same side of the road as the Relevant Main. As this party will also incur a higher Connection charge because of the extra length of service it is considered appropriate to split the Standard Domestic Load Connection Allowance into three types:

- Near Side Connection Allowance;
- Far Side Connection Allowance; and
- Average Connection Allowance (used where the Relevant Main is in the middle of the road; or the contractor's quote does not distinguish between near and far side).

SDLCA Assumptions

73. The method to calculate these is as follows:

- The average road width is 6 metres;

- The average path width and/or verge is 1.8 metres;
- The average length of service laid on the land of typical house to frontage is 6 metres;
- The price based on average quotes for services up to 23 metres are based on the average of the standard engineer rates procured by ESP;
- Other costs, such as the cost of provision and installation of meter housing and the cost of connecting a Service on to Mains, are used in the calculation of the SDLCA;
- Most services that are laid use a technique called moling, so reinstatement costs will be for the launch pit in the highway/path and the receiving pit at the front of the house. Although the cost of reinstatement of a receiving pit can be high (i.e. concrete or bitmac driveway) it is acknowledged that on average the reinstatement of the highway will be higher in cost, therefore a premium is added to take this into account; and
- For a Near Side Connection it is assumed that the Connection is in the side of the road, and therefore 0.4 metre of Service will be in the road, 1.8 metres in the pathway/verge and 6 metres on private land.

SDLCA Methodology

74. First the cost of the meter box, Connection to Mains and the premium for the highway reinstatement is subtracted from the Near Side service costs. From the remaining value, 27% is attributed to works in public land. This is because a Near Side Connection assumes that 2.2 metres of the gas service is in the public highway and 6 metres on private land which gives a split of 27% in public highway and 73% in private land.

The cost of the meter box, Connection and premium for reinstatement is added to this, giving the cost for the highway work, which is the Near Side Connection Allowance.

The difference in the initial service cost between a Near Side and Far Side Connections is assumed to all be for public land works so this amount is then added to the Near Side Connection Allowance to give the Far Side Connection Allowance.

The Average SLDCA is calculated from the above Near and Far Side Connection Allowances.

Fuel Poor Network Extension Scheme

75. Where an existing property is designated eligible for the Fuel Poor Network Extension Scheme (FPNES), then the cost of the Connection may be discounted by a contribution received by the GDN in line with the process set out by Ofgem. ESP will work with an impartial, Ofgem approved, qualifying partner to determine eligibility.

Allowances will be granted in the form of a voucher, which will pay for a proportion of the cost of the Connection to the gas network, up to a maximum value of the cost of the Connection.

Individual Customers may be eligible for the FPNES voucher where:

- A Customer must be eligible for support under Home Heating Cost Reduction Obligation in England, Wales or Scotland, Nest in Wales or the Home Energy Efficiency Programmes in Scotland;
- A Customer must be in fuel poverty based on the latest government definition or indicator. This currently is:
 - In England, the Low Income High Cost Indicator where a household is considered to be fuel poor if its income is below the poverty line (taking into account energy costs) and its energy costs are higher than is typical for its household type; or
 - In Scotland and Wales, a household spends more than 10% of disposable income on all household fuel.

The FPNES allowances are based upon the value to ESP of the future usage of the system and the income it expects to realise from the new or increased gas supply from a Connection point on ESP's existing gas network. It must also factor in the proportion of total use of system income for ESP's network and the upstream network. Worked examples are provided in Appendix C.

Where the infill development is not designated to be eligible for the FPNES, Customers may be entitled to a Standard Domestic Load Connection Allowance (SDLCA). For clarity, the FPNES voucher may not be used in conjunction with the SDLCA (see 74), nor can it be used for connecting new housing developments or I&C Connections (see 76).

Existing households may qualify for financial assistance if they are eligible for measures under the Welsh Government Warm Homes Scheme - 'Nest', or the 'Warmer Homes Scotland' scheme - 'HEEPS'.

In addition, a Customer requesting a Connection to an infill network may qualify for additional financial assistance towards the cost of the gas Connection. Customers wishing to access this funding will need to apply directly to the relevant funding body and will be assessed for eligibility on an individual basis.

Commercial Connection Allowance

76. When considering what capital contribution ESP is prepared to make towards an I&C Connection, it is at ESP's sole discretion as to the amount it will provide by way of an allowance. This is because each request has to be assessed on its individual merits and the economics of the network it is connected to. The factors considered include, but are not limited to the following:

- The forecast of the gas load of the Connection and the certainty that this will be achieved;
- The transportation income ESP will receive from the Connection, which is limited by the GDN's Equivalent Charges (as defined by Relative Price Control) and the GDNs' charge to the CSEP;
- Any additional operational costs ESP will incur from the Connection;
- Possible additional benefits other consumers on the network will receive from the Connection (for example it may extend the network so other premises can connect to a gas supply); and
- The commercial viability for the commercial consumer involved.

It is therefore not possible to publish any set allowances regarding allowances to commercial premises. Instead these will be based on commercial negotiations undertaken by ESP and the Customer involved.

Allowances for Reinforcement Work on ESP's Existing Gas Network

77. If Reinforcement of the existing ESP system is required for works for a new or Increased Connection an additional allowance may be provided in addition to those in the previous sections, the "Reinforcement Allowance". The application of this Allowance is at ESP's sole discretion as each request has to be assessed on its individual merits and the economics of the network it is connected to. These include, but are not limited to the following:

- The additional transportation income ESP will receive from the additional gas consumption on the network and the GDNs' charge to the CSEP;
- Any additional operational costs ESP will incur from the Reinforcement; and
- Possible additional benefits other consumers on the network will receive from the Reinforcement (for example it may provide additional capacity to enable other consumers to connect to the network).

If the Reinforcement is part of a New Connection request then the cost of Reinforcement will normally be taken into account as part of the cost of Connection. As such the calculation of the Connection Allowance will take into account the Reinforcement, therefore, no Reinforcement Allowance will apply.

It should be noted that a Reinforcement Allowance is unlikely to be applicable to single domestic Connection requests because they rarely require Reinforcement and the applicable ESP capital contribution has been already accounted for in the SDLCA. A Reinforcement Allowance is normally applicable where it is required to increase the capacity for an existing Connection (e.g. industrial premise with a significant Peak Load), or is required for a Connection point to extend the gas network (e.g. new housing estate).

Special Conditions

78. The following special conditions only applies to Infill connections:

- If the cost of the Connection for a Customer is less than the applicable allowance, then the Customer is not due payment of the difference. Instead the Connection Charge for the Customer in this case will be zero;
- In certain circumstances ESP may provide a higher allowance to a Customer if it believes there is merit in doing so. For example its Connection may extend the network to allow other consumers to connect to the network, ESP wants to secure the Connection for strategic or commercial reasons, the consumer is vulnerable and ESP chooses to provide a lower cost Connection;
- For any Connection carried out as a Self-Lay scheme ESP will provide the appropriate allowance, as ESP deems applicable, to the party requesting the Connection, or the party carrying out the Connection work; and
- For the avoidance of doubt it should be noted that if the Connection work is carried out as a Self-Lay scheme, it is still ESP's estimated costs of the work and of the assets to be installed for the specific benefit of the party seeking the Connection which determines any limit to the allowance, not the cost of the Self-Lay scheme.

Exclusions to the Standard Principles Used to Calculate the Allowances

79. The allowances set out in this statement will be used in the majority of cases. In a small number of cases, allowances may have to take into account unusual circumstances, which will affect the amount payable. Examples of such cases are:

- Temporary and other short term Connections;
- Seasonal and standby supplies;
- Where the standard allowances are not appropriate to the anticipated use of gas through the Connection;
- Where Additional Charges are applied;
- In cases where a Customer installs Connection equipment which will reduce ESP's normally expected future operation and maintenance costs, an additional allowance may be given;
- If any required Reinforcement of the GT's network (to which ESP's network is connected) specifically benefits the party seeking the Connection. Any allowances, given by that GT will be treated on an individual basis taking into account the terms and conditions of that GT; and
- If the party requiring a Connection is a GT, allowances will be paid only in circumstances where ESP will receive additional transportation income from the new or Increased Connection.

ESP allowances are based upon the present value to ESP of the future use of system income it expects to realise from the new or increased Connection. If the arrangement for shippers to bring gas to the Connection point precludes ESP charging them a transportation charge, then ESP has no additional income on which to base its allowances.

8. Appendices

The following appendices are provided for the purpose of supporting ESP's Connection Charging Statement. Where there is a conflict between the main body of ESP's Connection Charging Statement (sections 1 to 7 above) and these appendices, the information set out in sections 1 to 7 above shall take precedence.

Appendix A: Costs Associated with ESP Connection Charges

To give a schedule of rates for Connection work is not practical, as there are many factors which influence a project and its costs. However, the following section provides a guide to the type of considerations taken into account when pricing Connection work with examples of costs where appropriate. It should be noted that this information is only a guide and therefore will not be used by ESP as a basis for pricing Connection work. The information used for pricing the Connection work will be detailed in the quote as part of a request for a Connection.

Standard Domestic Connection Charges

Quotes from contractors for most domestic Connections are based on standard Connection "types". For example, in a defined geographical area for all services up to 23 metres in length and terminating at the front of the property contractors may provide a single price for a Near Side service and a single price for a Far Side service. This is the most efficient way of costing this type of work as to give individual prices would be too resource intensive in extra administrative and design work. Therefore contractors tend to take a balanced approach where they assess the work to ensure the Connections work is profitable overall, not based on individual jobs. This also benefits the Customer, as the Connection charges passed on will be cheaper on average.

If as many services as possible are carried out in one visit to a defined geographical area the Connection Costs can be further reduced through economies of scale (mainly obtained from the mobilisation and demobilisation costs being spread over more than one service). ESP endeavours to try and ensure as many Connections are carried out at the same time in an area as possible, mainly through mailshots informing Customers of when ESP's contractor will be in the area.

ESP has compiled a set of standard Connection charges with chosen contractors for a number of ESP's networks and has a set of prices (which are being used to quote Customers). ESP does not intend to publish these prices, as it cannot guarantee they will be applicable when a request is made.

Pipeline and Trenching Costs

Pipeline costs are based on using manufacturers' standard dimensions and include material, installation, and testing. Trenching costs are based on the excavation and backfilling of unmade ground typically encountered, however these costs can vary considerable depending on the ground conditions. The costs do not include for sand surround and protective tiles which may be required depending on the ground conditions

Reinstatement Costs

Reinstatement costs are those costs associated with making good the surface of the backfilled trench (e.g. resurfacing roads with bitmac). These costs can vary considerably, depending on the surface type.

Charges include excavation, backfill and routine reinstatement on private land except where requested otherwise. When specialist surfaces e.g. a mosaic, coloured bitmac or tiles are encountered within private land the Customer may choose to pay the standard charge (where applicable) and have excavations reinstated with black bitmac or re-laid modules or they may choose to pay a supplementary charge that will pay for the employment of a specialist reinstatement contractor. ESP will charge in respect of the hire of the specialist contractor, and there is no guarantee that an exact match can be achieved particularly if the existing surface is weathered or the original surfacing material is no longer manufactured.

Customers are advised to relocate or protect growing plants because although ESP will make every effort to avoid damaging growing plants, ESP will not replace them if they are destroyed or damaged.

Work Undertaken by Party Requesting Connection

Even if the Connection is not to be done as a Self-Lay scheme, to help reduce costs ESP will permit the party requesting the Connection to do some of the work required themselves. This is normally restricted to the excavation of the trench and some reinstatement work where it is on the party's own land. It is entirely at ESP's discretion what work the party will be able to undertake and the party must agree with ESP what work they intend to do beforehand.

Connection to the Mains

The work required to physically connect to the existing gas Mains will vary considerably. For example it may only require a relatively inexpensive fitting which can be connected as part of the installation of the pipeline, however in some circumstances the work required can be significant. Therefore the Connection cost will be priced on a project by project basis.

Connection to an existing New Housing network by another GT

On a typical new housing network, ESP only invests based on the number of Connections and does not make any contribution to the cost of the main and procuring additional capacity. This is generally paid for by the developer. Consequently, ESP does not need to recover this cost from a third party at a later date. So, for Connections by another GT to these networks, ESP applies a standard flat rate Connection charge to allow for load evaluation. If the work required to facilitate such a Connection is considerably more than this flat rate, in particular if a feeder main is required, then this will be assessed and charged on an individual basis. ESP will also charge for any Reinforcement work that may be required. Please note that there may be some developments where future additional capacity was planned for at the initial stage. In these circumstances, charges may be calculated by the method described for Infill Connections.

Labour Costs

Most of the direct labour costs have been included in the costs quoted for the pipeline, trenching and reinstatement; however there will be additional direct labour costs if the work requires it. Other labour costs which are normally added, in addition to the direct costs, are such things as supervision, project management and any other work required as part of the Connection works.

Meter Housing

The Connection charge usually includes for the provision and installation of the Meter Housing, however on completion of the Connection works the Meter Housing becomes the responsibility of the Customer and they are responsible for the ongoing maintenance and upkeep. ESP offers a 1 year guarantee in respect of meter boxes that are supplied by ESP; however this is invalidated if any defect or damage has not been caused by fair wear and tear. ESP is not obliged to provide a meter box and/or transport it to site unless it is also going to be installing it; however ESP may at its discretion provide either service if requested.

There may be occasions where the Customer may want, or be required, to provide the Meter Housing. In such cases this work will be done in full consultation with ESP, and ESP will only accept Meter Housing it believes is suitable. There may not be a discount from the standard charges if the Customer procures their own Meter Housing.

For domestic Connections ESP will normally only provide multi boxes installed at ground level or "bolt on" surface mounted meter boxes, therefore where a "built in" meter box is required a Customer must arrange for the provision of the box and undertake its installation prior to ESP beginning the engineering works.

Mobilisation and Demobilisation Costs

These are the costs associated with bringing the required material, equipment and labour to and from the site. It also may include setting up on site porta-cabins, provision of storage facilities to house equipment or materials (and security if necessary) and utilities if required. These costs depend very much on the Connection work and therefore meaningful costs cannot be given as a guide.

Lane Rental Charges

There may be Highway Authority Lane Rental Charges applicable and these incurred costs will be charged for.

Administration and Design Costs

Administration requirements will be assessed on a project-by-project basis, however as an indication of the costs involved, typically £30.00 per hour will be charged. There will be other costs taken into account which may include postage, stationery, office overheads and other ancillary costs.

Standard design and network analysis charges will be based upon an hourly charge out rate, for design staff, where this can be resourced internally. Where external resources are required these charges will be levied according to the cost to ESP, and overheads will be applied at the appropriate rate.

If requested ESP will carry out Network Analysis to determine a precise source pressure, however a charge will be made for this service which may be required to be paid before the work is undertaken if the costs incurred are anticipated to be significant.

The charges for this type of work, particularly where it is required to be paid up front, will be calculated on the basis of the costs that ESP expects to incur in carrying out the work. Accordingly, any charge made may be a combination of administration and design costs.

For avoidance of doubt it should be noted that if the Connection work is not carried out, whether by ESP or as a Self-Lay scheme, the charges for any preparatory work carried out by ESP (e.g. Administrative, Design and Network Analysis work) will not be refundable. ESP may however at its own discretion decide to refund all or part of these charges.

Overheads

Each cost element will have an appropriate level of overhead added.

Reinforcement Costs

If Reinforcement of ESP's existing network is required the costing for this work will need to be done on a project by project basis and therefore it is not possible to give any indication of what these costs would be. This also applies if Reinforcement work is required on the GT's network to which ESP's network is connected.

Load Evaluation Service

ESP does not have an obligation to provide a load evaluation service to determine individual or groups of Customers' gas load requirement. ESP may still provide this service, or provide help to the party investigating the load requirement (e.g. gas shippers), where it considers it has the resource to do so. Normally the load evaluation will be a basic evaluation only and where this service represents a significant amount of work ESP may choose to levy a charge.

Other Costs

It is not feasible to cover every possible variable which may be required as part of a Connection project. However, listed below are some additional costs that have not been covered in the charges previously discussed:

- Negotiation and payment of wayleaves and easements;
- Negotiation and payment of planning consents;
- Valves;
- Pressure regulating equipment and its housing (which is not part of a meter unit);
- Traffic management;
- Treatment of contaminated ground;
- Serving notices to the Highways Authority; and
- Acquiring plans of other utilities' plant equipment.

Factors Influencing Costs

Although this should not be regarded as a comprehensive list, the following is a guide to the factors which influences the costs that have been described:

- Length of pipe required;
- Ground conditions for excavation;
- Type and extent of reinstatement and the need for road crossings;
- Size of Customer demand in relation to available capacity of existing network, taking into account the age of the assets and the condition of the network;
- Standards governing the system;
- Availability of wayleaves and easements for pipelines, including any planning consents;
- Availability of suitable sites for equipment, including any planning consents;
- Restrictions in working space;
- Necessity of overtime working;
- The time of year the work is carried out.
- The labour rates in different parts of the country;
- Connections at pressures greater than 2 bar (gauge) usually require special consideration and may require special equipment; and
- Obstacles on route (e.g. railways, rivers, sites of special scientific interest).

Disconnections, Isolations, Reconnections and Alterations

Isolating a Meter Point is a temporary way to halt the supply of gas and generally consists of simply capping off the supply at the meter. Alternatively, a Disconnection is considered to be a more permanent solution and it may mean removal of pipeline from the premises.

This will also apply to renewing or altering a Connection to a site, therefore any charges involved for the work will be assessed individually.

ESP will charge the cost that it reasonably expects to incur when carrying out the work and this charge will include appropriate overheads.

Provision, Return and Repositioning of Meters

The provision, return and repositioning of meters for existing offtake positions is not covered by this publication. Provision of meters and any pressure regulating equipment which forms part of the meter unit for any New Connections are not covered by this publication.

Appendix B: Connection Charges and Allowances - Examples

The following are examples of how Connection charges and allowances are calculated. It should be noted that the applicable allowances and Additional Charges have also been included in this section, to demonstrate what the overall charge to the party requesting the Connection will be. (Note that the costs shown do not include VAT, however it may be applicable depending on circumstances.)

The costs described are indicative only. They are included in this publication to serve as examples and should not be used to evaluate the accuracy of actual quotes provided by ESP.

Standard, Single Point Domestic Connection

A house requires a Connection from an existing low pressure gas main.

Job Details:

- Located in the South East of England;
- The length of Service is 8 metres to the front of the property;
- The existing gas Main is on the same side of the road as the property;
- Customer requires a bolt on meter box;
- The anticipated annual consumption is 19,350 kWh; and
- The request is one of three other requests within the same area.

Quote Details:

- ESP has procured a quote from its contractor of £1,890 per Near Side standard Connection (i.e. service is of a typical domestic type, up to 23 metres in length) where 4 domestic services are laid in the area at the same time;
- ESP has included an additional £30 for its administration and overheads costs;
- The Standard Domestic Connection Allowance for a Near Side Connection is £667.91; and
- This is not in an infill area so there is a Zero additional charge.

Connection Cost:

Contractor's Costs	£1890.00
ESP's Costs	£30.00
Allowance	-£667.91
Additional Costs	£0.00
TOTAL COST	£1252.09

Infill Domestic Connection

A house requires a Connection from existing low pressure gas Mains.

Job Details:

- Located in the Highlands of Scotland (Note: a remote area which requires a significant trip to site).; length of Service is 17 metres to the front of the property;
- The existing gas main is on the other side of the road from the property;
- The Customer requires a bolt on meter box;

- The anticipated annual consumption is 23,450 kWh;
- The request is the only one within the same area; and
- The property will connect to an infill network.

Quote Details:

- ESP has procured a quote from its contractor of **£3,540** per Far Side standard Connection (i.e. service is of a typical domestic type, up to 23 metres in length) where only one service is to be laid within the area during the contractor's visit;
- ESP has included an additional **£30** for its administration and overheads costs;
- The Standard Domestic Connection Allowance for a Far Side Connection is **£1,966.86**; and
- The works are located in an infill area so there is an Additional Charge towards the Mains of **£123.30**.

Connection Cost:

Contractor's Costs	£3,540.00
ESP's Costs	£30.00
Allowance	- £1966.86
Additional Costs	£123.30
TOTAL COST	= £1,726.44

CSEP Connection

Another GT requires a Connection from existing low pressure gas Mains to enable it to service a new housing estate with a gas network.

Job Details:

- Located in South West Scotland;
- It will connect to an infill network;
- It will be a housing estate of 50 houses;
- The Connection point will require ESP to provide a peak hourly rate of 62.5 standard cubic metres per hour; and
- ESP will need to provide a 90mm Connection point off its network in the road terminating in the footpath outside the site. This will require ESP to carry out a live Connection and the laying of 8 metres of pipe in the highway.

Quote Details:

- ESP has a total peak hourly rate requirement of 300 standard cubic metres per hour for all the Connections off its own network. Therefore the total peak hourly rate at the GDNs' Connection point for ESP's and the GT's network is 362.5 standard cubic metres per hour, of which 17.2% is for the GT;
- ESP spent about 5 hours carrying out the required network analysis to provide a quote and another 2 hours to process the quote. With overheads that produces an ESP charge of **£319.20**;
- ESP broke the pipeline from the GDN's Connection point to the GT's Connection point into 3 sections. For each section ESP calculated what percentage of the capacity that section has allocated for the gas to be delivered to the GT's network based on peak hourly rates;
- ESP allocated a proportion of the cost of installing each section to the GT based on the percentage of the capacity allocated to it, and a proportion to ESP;

- As ESP will not benefit from any additional income from the transportation of the gas to the GT's network there is no allowance applicable; and
- All the Future Operating Costs for the network are expected to be recovered through transportation charges; therefore ESP has decided not to include an Additional Charge for Future Operating Costs.

Connection Cost:

GDNs' Connection	=	£2,000	x	17.2%	=	£344.00
Section 1	=	£9,500	x	17.2%	=	£1,634.00
Section 2	=	£5,400	x	25.5%	=	£1,377.00
Section 3	=	£3,800	x	65.0%	=	£2,470.00
ESP Costs					=	£319.20
Provision of Connection					=	£950.00
TOTAL COST					=	£7,094.20

Single Point Commercial Connection

A commercial premise requires a Connection from a gas Main 200 metres away using a 125 mm PE pipeline operating at 2 bar (gauge) pressure.

90 metres will be in the road and will cost:

Pipe	=	£20.00	x	90 metres	=	£1,800.00
Trench	=	£9.80	x	90 metres	=	£882.00
Reinstatement	=	£67.00	x	40 square meters	=	£2,680.00

The Connection is a straightforward top T done at the same time as the work in the road:

Top T and fitting						£325.00
Valve and valve pit at Connection point						£270.00
Additional reinstatement work						£430.00

80 metres is across a farmer's field:

Pipe	=	£20.00	x	80 metres	=	£1,600.00
Trench	=	£9.80	x	80 metres	=	£784.00
Easement	=	£6.00	x	80 metres	=	£480.00
Legal Costs					=	£972.00
Temporary Fencing	=	£2.00	x	160 metres	=	£320.00

30 metres is across the commercial premises' front lawn, the owner of the premises is to excavate and backfill the trench and reinstate the lawn:

Pipe	=	£20.00	x	30 metres	=	£600.00
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Trench	=	To be done by Customer	=	£0.00
Reinstatement	=	To be done by Customer	=	£0.00

Mobilisation and demobilisation includes for bringing the teams and equipment to the site for 5 days work:

Travel to and From site	=	£450.00 x 5 days	=	£2,250.00
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ESP administration charges for the project totals 20 hours work:

Administration	=	£30.00 x 10 hours	=	£300.00
Project Management	=	£42.00 x 10 hours	=	£420.00
Overheads (20%)	=	£720.00 x 20%	=	£144.00

Additional costs include some sand surround for a section of the pipe and traffic management for the road works:

Sand surround and delivery	£210.00
Traffic lights hire and labour	£210.00
Storage and security on site	£850.00

There is a Reinforcement cost relating to a modification to a gas regulator on the ESP existing network to allow for the additional gas flow.

Labour	=	£900.00 x 1 day	=	£900.00
Replacement parts for governor Unit	=		=	£1,600.00

ESP will provide and install a single stream meter unit free of charge; however the Customer requires it to be twin stream and housed in a kiosk.

Extra to provide additional stream	£1,500.00
Meter Kiosk	£2,500.00

From an economic analysis where ESP took into account the extra income it will receive from the Connection (which is anticipated to take a gas load of 7,500,000 kWh per year with a load factor of 75%) it is prepared to give an allowance of **£3,500.00**.

Therefore, the total cost of the connection will be **£18,527** as allocated below:

Cost of connection in the road	=	£5,362
Cost attributed to Top T fitting, Valve and related costs	=	£1,025
Cost attributed to 80m of pipe in the farmer's field	=	£4,156
Cost attributed to 30m of pipe in the front lawn	=	£600
Cost attributed to mobilisation of personnel	=	£2,250
Cost attributed to ESP administration	=	£864
Cost attributed to traffic management for section of the road works	=	£1,270
Cost attributed to reinforcement	=	£2,500
Cost attributed to the provision of a meter	=	£4,000
Cost Allowance	=	(£3,500)
Total Cost	=	£18,527

Spine Main Connection

A spine main has been installed to service a number of plots that will either be developed by ESP itself, another GT or another party wishing to make a single Connection for a premise serviced directly from the main. Therefore this example is the basis for the Connection cost for all three types of "connecting parties" (for ESP this Connection cost will be included in its overall installation cost for the network or service quote provided to the developer or other party).

Job Details:

- A spine main installed for a lead developer to service 19 plots of land that it intends to sell off to other developers to build flats, homes and commercial premises;
- For this type of network it was decided that the appropriate format for allocating the costs of the spine main to connecting parties is by a simple allocation of the investment and costs incurred by ESP based on the proportion of the total peak hourly rate the connecting party requires (Note the length of spine main used from the GDNs Connection to connecting party's Connection point will not be taken into account);
- Should the connecting party require an increase in its capacity requirement for the Connection in the future, an additional Connection contribution would be required based on the same allocation for the additional amount;
- Should the connecting party require a decrease in its capacity requirement ESP, at its **own discretion**, may provide a rebate for the reduced amount; however it would normally expect that the connecting party would take the commercial risk for any decreases in capacity requirements;
- ESP will need to provide a 125mm Connection point off its network in the footpath outside the site. This will require ESP to carry out a live Connection and lay of 2 metres of pipe into the site; and
- The Connection point will require ESP to provide a peak hourly rate of 3,000 kW (includes diversification).

Quote Details:

- ESP designed the spine main for a total peak hourly rate of 31,773 kW (includes diversification) for all the Connections off the spine main. This is the total peak hourly rate contracted to the GDNs at the Connection point to the GDNs' network. Therefore the connecting party will be using **9.44%** of the total peak hourly capacity of the network;
- ESP spent about 2.5 hours carrying out the required network analysis to provide a quote and another 1 hour to process the quote, with overheads that produces an ESP charge of **£159.60**;
- The ESP investment and costs incurred for the spine main in total is £35,000; however a further £25,000 expenditure is anticipated to complete the spine Mains therefore the total used is **£60,000**;
- It is assumed this is a GT Connection therefore ESP will not benefit from any additional income from the transportation of the gas to the connecting party's Connection, and so no allowance is applicable ; and
- The Future Operating Costs for the spine main will not be recovered through ESP's transportation charges therefore an Additional Charge will be levied based on a total capitalised charge of **£20,000**. This mainly comes from the maintenance of a network governor (includes replacement of parts and emergency cover).

Connection Cost:

Spine Main	=	£60,000	x	9.44%	=	£5,664.00
Future Operating Costs	=	£20,000	x	9.44%	=	£1,888.00
ESP Costs					=	£159.60
Provision of Connection					=	£600.00
TOTAL COST					=	£8,311.50

Appendix C: Example of connections benefitting from the Fuel Poor Network Extensions Scheme (FPNES)

The allowances are based upon the value to ESP of the future usage of the system and the income it expects to realise (NPV) from the new or increased gas supply from a connection point on ESP's existing gas network to the point where the gas is offtaken. It must also factor in the proportion of total use of system income for ESP's network and the upstream network. The allowance is calculated from the lower value of the cost of connection, or the NPV of future transportation income.

- **#Example 1:** Community based project connecting to an iGT where cost of Connection is less than NPV of future transportation income

Cost of mains and Services (per Customer)	=	£1,200.00
NPV of future transportation income	=	£1,500.00
IGT receives 40% of NPV of future transportation income	=	£600.00
GDN receives 60% of NPV of future transportation income	=	£900.00
GDN Connection contribution to IGT	= £1,200 x 60% =	£720.00

The GDN will be expected to give to the iGT a contribution of £720 towards the fuel poor discount, which the iGT will use to discount the cost of the Connection. This leaves a shortfall of £480 in the cost of the Connection, which the iGT can meet by offering a Connection discount to the Customer.

- **Example 2:** Community based project connecting to an iGT where cost of Connection is more than NPV of future transportation income

Cost of mains and Services (per Customer)	=	£1,600.00
NPV of future transportation income	=	£1,500.00
IGT receives 40% of NPV of future transportation income	=	£600.00
GDN receives 60% of NPV of future transportation income	=	£900.00
GDN Connection contribution to IGT	= £1,500 x 60% =	£900.00

The GDN will be expected to give to the iGT a contribution of £900 towards the fuel poor discount, which the iGT will use to discount the cost of the Connection. This leaves a shortfall of £600 in the cost of the Connection, which the iGT can meet by offering a Connection discount to the Customer.

■ **Example 3: One-off Connection to an iGT**

One premise located 12m away from the Relevant Main

Gross cost of Service:- standard Connection charge	=	£300.00 plus	=	£800.00
		10m allowance		
		(£500)		
NPV of future transportation income	=			£1,500.00
IGT receives 40% of NPV of future transportation income	=			£600.00
GDN receives 60% of NPV of future transportation income	=			£900.00
GDN Connection contribution to IGT	=	£800 x 60%	=	£480.00

The GDN's Connection contribution to the iGT is £480, which leaves a shortfall of £320 in the cost of the Connection, which the iGT can meet by offering a Connection discount to the Customer.

Appendix D: Additional Connection Charges

Treatment of Additional Connection Charges

Most of the additional Connection payments received by ESP for a designated area will, depending on the circumstances, be treated as follows:

- **Type 1:** Some, or all, of the additional Connection payment will be used to reduce the contribution made by ESP towards the network when it was initially installed. This is where the calculation of the gas transportation charges and, or, any other charges used by ESP to recover its capital investment were adjusted to take into account this gradual recovery over time of some of its investment through the additional Connection charges. This type of additional Connection charge is for infill areas and so is applied under the Gas (Connection Charges) Regulations 2001 as amended.
- **Type 2:** If ESP has an agreement that additional Connection payments will be used to reduce the contribution made by other End Users on the network, some, or all, of the additional Connection payments will be distributed among these End Users as a rebate.
- **Type 3:** Where a speculative contribution was made by ESP towards the network which was not used in the calculation of the gas transportation charges and, or, any other charges used by ESP to recover any of its contributions, some, or all, of the additional Connection payment will be used to reduce this ESP speculative contribution. This type of speculative investment by ESP is based on the expectation of additional income should the Connection(s) be made, or at least recovery of the capital investment (and where applicable Future Operating Costs) made where there will be no additional income. An example of this is recovery of spine Mains costs from individual End Users or other connecting GTs.

The above principles are expected to be used for most designated areas; however there may be a variance to these principles in the future depending on the circumstances and considerations which need to be taken into account.



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