Southern Gas Networks Connections Charging Methodology and Standard Condition 4B Statement

Effective from 1st October 2018

SGN

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1 Introduction

This is a Statement of the Principles and the Methods which Southern Gas Networks (SGN) will use to determine the charges specified in Standard Condition 4B of the Gas Transporter Licence. In addition this document outlines how SGN will charge for the alteration and disconnection of connection apparatus and includes information about capacity availability and meter housings.

This Statement applies to charges determined from the Effective Date, until superseded by any future Statement. It also provides information in support of the relevant Long Term Development Statement in respect of connections.

Further information relating to SGN's connection services may be obtained from sgn.co.uk**,** or by writing to the address given in Appendix G.

It's illegal for anyone to carry out any work on SGN's Distribution network system unless they are suitably qualified under the Gas Industry Registration Scheme (GIRS). A list of registered providers can be obtained at https://www.lr.org/en/utilities/gas-industry-registration-scheme-girs/search. We'll need to approve any third party's work in advance to make sure they meet all our safety requirements. If they go ahead without our approval, we may have to cut off your gas and bill you for any resulting repair work.

Please note that the provision of gas connection services is open to competition. Information of independent connection providers who hold Gas Industry Registration Scheme (GIRS) membership can be found at the following websites:

https://www.lr.org/en/utilities/gas-industry-registration-scheme-girs/search/
http://eua.org.uk

2 Principles for connection charging

2.1 Charging: general

2.1.1 Cost recovery

SGN aims to recover those costs that it reasonably expects to incur when it provides connection services. This is subject to the requirements of Standard Condition 4B (1) of our Gas Transporter Licence.

2.1.2 Basis of charges

Charges will be calculated to reflect the cost of labour, materials, and any other expenses required to carry out the work to the customer's requirements including applicable charges relating to traffic management legislation, parking bay suspensions, scaffolding etc. Each cost element will carry an appropriate level of overhead[1].

2.1.3 Standard charges

Standard quotes and standard charges will be applied for some categories of connection where the cost benefit of their use, relative to the production of non-standard quotes, is believed to be favourable.

2.1.4 Design charges

Design charges associated with non-standard quotes will be identified within the quote. Where customers do not have an appropriate credit rating, design charges may be payable in advance. Where the work is sufficiently complex, a chargeable design study will be carried out prior to a quote being issued for physical connection work. The design charge for completing the design study will be payable in advance and will include an appropriate level of overhead (see Appendix D).

2.1.5 Additional costs

SGN may carry out work additional to that requested by the customer. Where this occurs the cost of the additional work will not be charged to the customer.

2.1.6 Abortive visits

Where customers fail to communicate changes in site conditions, or agree necessary on site variations that prevent SGN from starting work, SGN may apply a standard charge for abortive visits.

2.1.7 Contract

All quotes are made subject to SGN's conditions of contract from sgn.co.uk or from the address in Appendix G.

2.1.8 Assumptions

Non-standard quotes will include any assumptions that were used in the determination of the cost. Where these assumptions are found to be materially incorrect, SGN may require the person requesting the connection to agree to a variation in price before commencing or continuing work on site. Where such agreement is not provided, SGN may terminate the job.

2.1.9 Charging document

Details of our charges are provided in our Connection Services Charges document, available on sgn.co.uk or by writing to the address given in Appendix G.

2.2 Standard connection pressure

Gas will normally be made available to consumers at a pressure that is compatible with a regulated metering pressure of 21mbarg.

[1] SGN is obliged to pass on only those costs which have been efficiently incurred.

2.3 Self-lay pipes or systems

Where customers wish to lay their own service pipe to premises expected to consume 2,196MWh per annum or less, then ownership of the pipe will remain with SGN once the connection to our system has been approved and satisfactorily completed.

For work carried out by a non-Gas Industry Registration Scheme (GIRS) organisation, adoption will be subject to a standard charge.

Where the connection is for a pipe laid to premises expected to consume more than 2,196MWh per annum or the connection is to a pipe that isn't a relevant main, self-laid pipes do not automatically belong with SGN. We will however provide a quote for adoption that is reflective of future anticipated maintenance.

SGN will provide a quote to maintain or adopt an existing private network on request. The quote will reflect the ongoing cost to upgrade the network as well as future maintenance.

2.4 Reasonable demands for capacity

In certain instances specific system reinforcement may be required to maintain system pressures for the coming winter period. Details of how SGN charge for reinforcement and the basis on which contributions may be required can be found in section 3 of this document.

Please note that reinforcement projects can have significant planning and construction lead-times and that as much notice as possible should be given. For example, the construction of high pressure pipelines or plant may require several years' notice.

2.5 P18 Pipelines

SGN has highlighted a number of pipeline systems as P18. Additional care must be afforded to these pipelines particularly when making a connection. Early notification of the intent to expose such pipelines will need to be provided to SGN as additional monitoring will be required. Additional costs may be incurred by the customer as a result of working on or near the P18 pipelines.

3 Methodology for determining connection charges

3.1 Connection design philosophy

SGN will construct apparatus on a least cost 'fit for purpose' basis. This means that where there are different design solutions that meet a customer's requirements, the one that is anticipated to have the lowest overall cost of construction will be selected.

3.2 Connection work charging

3.2.1 Basis of charges

Charges for connection work are calculated using:

- Materials – the costs plus overheads relating to the handling of materials
- Labour rates - based on direct labour rates plus overhead costs which reflect the cost of managing and delivering this connection work
- Special services – any costs (including scaffolding, premium hours such as weekends, suspension of parking bays, easements, traffic management permits etc), plus overheads
- Pressure reduction apparatus – the cost plus overheads

Larger projects such as Infills may be individually tendered or otherwise costed to take advantage of economies of scale and/or scope.

3.2.2 Public land

Where appropriate, charges for connection will include excavation, backfill and reinstatement in land dedicated to public use.

3.2.3 Private land

Charges include excavation, backfill and reinstatement on private land except where requested otherwise. The customer may request SGN to carry out permanent reinstatement of a specialist surface (eg mosaic, coloured tarmac, block paving, non-standard tiles or flagstones), however this must be requested in advance and will result in a separate charge being made. Customers who require permanent reinstatement of a specialist surface are advised to arrange for their own contractor to carry out the work. SGN can't guarantee to avoid damage to growing plants.

3.2.4 Pressure reduction apparatus

Charges for pressure reduction apparatus are as follows:

- If it forms part of the supply meter installation, then charges must be provided by a gas supplier
- If it's located along the connecting pipework, it's charged for at cost plus overheads
- If it's part of any specific reinforcement downstream of the connection charging point, it's charged for at cost plus overheads
- If it's part of any specific reinforcement upstream of the connection charging point, SGN will fund it subject to the application of the appropriate Economic Test
- If it's part of an 'alternative to reinforcement connection', then the cost is treated in the same way as the proposed alternative to reinforcement connection pipe (refer to section 3.12)

3.2.5 Service pipes

When a property already has one or more gas service pipes and the owner or occupier wishes to increase their consumption of gas, it may be necessary to replace or duplicate an existing service pipe, unless 3.2.6 is applicable.

3.2.6 Load increases

No charge will be made if the additional flow of gas is required from an existing supply meter point and the total consumption remains below 73,200kWh (2,500 therms) per annum. In other circumstances the work will be chargeable. Please note that duplicate service pipes are not permitted for domestic premises unless the second service pipe is provided for a separate building, for example a stable which is separate from the main house.

3.2.7 Pressure increases

All the costs associated with increasing the gas supply pressure from an existing gas supply pipe will be charged to the person concerned. Please note: Consumers using less than 732,000kWh (25,000 therms) per annum are not permitted to receive their gas at a pressure higher than 21mbarg nominal because of the provisions of the Gas (Calculation of Thermal Energy) Regulations.

3.3 Standard charges

Standard charges will be used for some types of connection service requests. The principles used to establish these charges are:

- The standardisation is based on an analysis of the types of work that are typically carried out in that charge category
- The analysis will be based on a statistically significant sample of completed jobs over the previous 12 month period, and will produce a weighted average component for each work type in the charge category
- Current material and contractor charges and overheads are applied to each work type
- The Domestic Load Connection Allowance is applied where applicable to that charge category
- The cost of such typical work is calculated in accordance with the principles and methods of this statement
- The resulting standard charges do not entail undue preference or undue discrimination

Details of our standard charges can be found in our Connections Charges Statement which is available on sgn.co.uk or from the address in Appendix G.

3.4 Standard designs

SGN will use standard designs in respect of certain connections where:

- The cost/benefit of using standard designs is believed by us to be advantageous
- Representatives of customers, who might be quoted on the basis of a standard design, have been consulted
- The designs have been produced in accordance with the principles and methods of this statement
- The resulting standard designs do not result in charges which entail undue preference or undue discrimination

3.5 Charging for the final connection of apparatus (<7Barg connections)

In general SGN will follow the same principles that we apply to other connection work in respect of charging for final connections. Whoever requests us to carry out a final connection will be expected to complete the necessary excavation and reinstatement, and will include their obtaining suitable permissions.

3.6 Charging for minimum connections (>7Barg connections)

SGN will follow the same principles that we apply to other connection work in respect of charging for minimum connections.

3.7 Standard source pressures

SGN will use, and provide to other connection service providers, standard source pressures for the purpose of the design of certain connections. The types of connection covered by standard source pressures will have previously been subject to public consultation. Standard source pressures are published by SGN and may be subject to change from time to time.

3.8 Domestic Load Connection Allowance (DLCA)

For individual new connections to properties that are situated within 23m of a relevant main (unless the route to the property has obstacles which increase the physical pipe distance to over 23m or the obstruction acts as a barrier which is not economic to overcome) and are wholly or mainly used for domestic purposes, SGN will install the connection to the main but will not charge for the first ten metres of pipe laid upon property dedicated to public use (ie where the pipe is not laid in property owned or occupied by the person concerned). This is known as the Domestic Load Connection Allowance (DLCA).

A person may request multiple connections, each benefiting from this allowance, provided that each connection is to a different eligible property.

This allowance will not apply if the property is eligible to benefit from the fuel poor voucher (see section 3.14).

3.9 Load evaluation service

SGN will carry out basic load evaluation services in the following circumstances:

- To determine whether a potential consumer will require a PARCA
- To determine whether a potential customer will require a supply point NEXA or NEA
- Where it's necessary to determine which connection charge category a potential consumer is in

3.10 Connection design charges

Any charges made for connection design work will be calculated on the basis of the cost that SGN expects to incur and is dependent upon the information provided by the customer, other publicly available information and information relating to our pipeline system.

SGN will charge for a connections design except where there is a standard charge quote or a standard design connection.

3.11 System entry and storage connections

3.11.1 General

SGN offers a service to connect pipelines or mains laid and intended to be operated by others, which will link entry or storage facilities to its systems.

Consistent with Pricing Discussion Paper DNPD03, "Charging for LDZ System Entry Points" (available on the Joint Office website), SGN will enter into bilateral contractual agreements that will provide the most appropriate long term commercial and regulatory arrangements for these individual LDZ system entry points.

The bilateral agreement will be drawn up between SGN and the delivery facility operator. It will set out the technical, engineering and charging details of the connection. The associated work will be considered as sufficiently complex jobs (see Appendix D) and in all cases SGN will charge for a remotely operable valve and telemetry at the interface of the connecting pipeline and the system operated by the other party.

3.11.2 Requirements for entry and storage connections

In addition to the equipment provided by SGN, there are a variety of requirements (eg gas quality measurement) that a customer must fulfil to connect and operate an entry or storage facility that is connected to our system. These are not within the scope of Standard Licence Condition 4B and consequently they aren't included within this statement. Prospective entry and storage facility operators should contact SGN for details of bilateral terms and conditions using the address in Appendix G.

3.11.3 Charging for connections to entry or storage facilities

Following the principles above, charges will be set out in the Bilateral Contractual Agreement between SGN and the delivery facility operator.

Where the connection of entry or storage facilities to SGN systems triggers reinforcement of those systems, the costs of such reinforcement will be charged to the customer within the connection charge.

The operating costs of providing other services such as gas quality monitoring, metering and telemetry, and any other non-transportation services will be recovered through the bilateral agreement. It's not envisaged that any on going transportation charges would be applied to these connections.

3.11.4 Ownership of DN-embedded entry or storage connection assets
Subject to 3.15 or 3.16 as appropriate, and at the customer's option, we'll take ownership of apparatus laid by others that is intended to connect entry or storage facilities.

3.11.5 Review of system entry and storage connection arrangements
The above arrangements reflect the current market conditions. Depending on the number and take-up of LDZ system entry points, SGN reserves the right to review these arrangements should market conditions change.

3.12 Reinforcements for system exit connections

3.12.1
Reinforcement 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 specific reinforcement.

3.12.2
SGN apportions the cost of specific reinforcement according to its location in relation to the connection charging point. Specific reinforcement downstream of the connection charging point is charged to the customer. SGN funds specific reinforcement upstream of the connection charging point, subject to the Economic Test in respect of distribution network system reinforcements.

3.12.3
The connection charging point is the closest economically feasible[2] point (taking into account any customer request for gas to be made available at a particular pressure) on our system, that is deemed to have enough capacity to supply the new load disregarding existing loads. The connection charging point creates the financial distinction between connection costs that are fully chargeable to the person concerned, and upstream reinforcement costs which may be funded by SGN subject to any contractual requirements.

3.12.4
Where SGN connects premises and selects an alternative route that provides lower overall reinforcement and connection costs, the customer contribution will be based on the lower of:

- The overall costs of the alternative to reinforcement including any associated contribution towards any specific reinforcement that is associated with the alternative connection
- The connection costs plus any contribution towards specific reinforcement associated with the original connection charging point route

3.12.5
In respect of such 'alternative to reinforcement connections' by Independent Connection Providers or other Gas Transporters, they will be informed of where the connection should be made. They will then be offered a payment to offset the estimated additional cost associated with connecting at the alternative point.

3.12.6
If the customer insists on making a connection at another point which represents a sub-optimal system development solution, then SGN will charge the full cost of any associated reinforcement.

[2] A consumer's premises may be closer to a main that is on the 'wrong' side of a significant obstacle (eg a river) than it is to another main. In this case, the connection charging point would be deemed to be on the alternative main as the cost of laying a connection pipe across the obstacle would be prohibitive.

3.12.7
Where we've 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, SGN 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.

3.12.8
If any distribution network system specific reinforcement that's subject to the Economic Test doesn't pass the test, a financial contribution toward the costs will be payable by the client. In such cases details of the chargeable and non-chargeable elements will be made clear.

3.12.9
With reference to the Uniform Network Code and implementation of Modification Proposal 0090 on 1 April 2008, all loads connected to the distribution network will automatically default to firm transportation arrangements from 1 October 2011. Similarly, all new applications for connection or additional load from 1 October 2011 must be for firm capacity rights. Once firm transportation rights have been obtained, users may then be able to submit an interruption offer to designate one or more tranches of supply point capacity at an eligible supply point as interruptible through the annual or ad hoc interruptible application process, in accordance with Modification Proposal 0090 and the DN Interruptible Capacity Methodology Statement.

All connections with effect from 1 October 2011 must be for firm transportation rights. Where firm capacity can't be delivered by SGN in full within the timescale requested, SGN 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 SGN in order to meet SGN's transportation licence obligations. Compensation may be paid to the Shipper to reflect the fact that firm transportation capability won't be available.

3.12.10
Costs associated with reinforcement work that are required to increase the gas pressure at an existing supply point or connected system exit point (CSEP) will be charged to the enquirer.

3.12.11
Where requested by the customer, and where practicable and consistent with the other provisions of this statement and the Uniform Network Code, SGN will provide pressure elevation at a new supply point or CSEP, free of charge if the required pressure is predicted to be continuously available during the subsequent planning period. The planning period is five years for below 7Barg networks and ten years for above 7Barg networks. If the requested pressure is determined to be unavailable at any time within the planning period, reinforcement will be required. Subject to the exception detailed in the paragraph below, the cost of this work will be charged to the person requiring the elevated pressure.

3.12.12
SGN apply a methodology for connected system connections that derives the connection point pressure that could reasonably be expected to be available for the purpose of designing low pressure gas transportation infrastructure. Subject to the Economic Test, SGN will fund reinforcement upstream of the connection charging point designed to provide this pressure where it isn't available.

Where there's a requirement for a higher pressure than that derived by the methodology, associated additional costs will be payable by the client.

3.12.13
To ensure efficient system development, it's sometimes necessary to upsize a connection or reinforcement pipe beyond that which is required for the load. SGN 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.

SGN will fund the reasonable marginal cost of upsizing apparatus that we adopt.

3.12.14
Where any specific reinforcement involves work that is of sufficient complexity (see Appendix D) the person requesting the connection, or increase in load will give rise to the reinforcement, must pay for a design study prior to their receiving a quote. If the reinforcement subsequently proceeds with no substantive change to the load or original design, then subject to the outcome of the Economic Test, the cost of the design study may be reimbursed to the requestor.

3.13 Gas Infill projects

In an Infill, the calculation of any shared costs to be paid at each property is as follows:

1. The shared costs include the cost of the new mains, connecting the new mains to existing mains, installing pressure controlling apparatus that's not part of any supply meter installation, and any charges for the provision of capacity on the existing network system.
2. A survey will be conducted in the area to be supplied to assess the number of properties which are likely to connect within twenty years of the new mains being laid. It's this number which is used to apportion costs and not the total number of premises in the area.
3. The appropriate proportion of the shared costs is charged to all customers connecting in the Infill area for a period of not more than twenty years until the total cost of the mains has been recovered or the scheme closes, whichever is the earlier.
4. The twenty-year period starts on the day the relevant main is commissioned.
5. In an Infill, the cost of the service pipe will be charged on an individual basis in the same way as any other connection. Potential consumers within an Infill will benefit from the Domestic Load Connection Allowance where it's applicable.
6. Where a consumer, likely to consume more than 2,196,000kWh (75,000 therms) per annum, is situated within the Infill and will connect to gas at the time when mains are laid, they'll pay a mains contribution in direct proportion with their share of the total annual off take quantity of the Infill.
7. Where a consumer, likely to consume more than 2,196,000kWh (75,000 therms) per annum, is situated within the Infill and declines to connect at the time when mains are laid, then that consumer won't be permitted to connect to the Infill unless;

    a. Either the twenty year Infill period has expired, or
    b. They fund sufficient reinforcement to enable the remaining premises not above 2,196,000 kWh (75,000 therms) per annum within the Infill which might connect to gas, to be connected without there being any requirement for any additional reinforcement within the twenty year period.

3.14 Connections associated with fuel poor customers

To facilitate connections to fuel poor customers or network extensions to non-gas fuel poor communities, eligible enquiries will receive a voucher that can be used as full or partial payment of the cost of connection. Based on the net present value (NPV) of the connection's future net transportation income, this will be known as the fuel poor voucher and will be calculated using the fuel poor test (FPT).

3.14.1 Eligibility criteria
In order to qualify for the new arrangements enquiries must satisfy the following criteria:

- Be in receipt of certain qualifying criteria benefits or
- Assessment of household income indicates high percentage spent on cost of energy

Only existing domestic properties are eligible for the fuel poor voucher. Non-domestic and new domestic properties aren't eligible.

SGN will endeavour to mutually agree a reasonable time frame with the customer for constructing the network extensions.

3.14.2 Application of fuel poor test

With effect from 1 March 2009, the FPT will be applied to individual connections, network extensions and IGT or ICP connections to qualifying fuel poor households or communities.

For SGN fuel poor network extensions, the number of potential connections will be assessed against a twenty year horizon and all the connection, reinforcement and infrastructure costs associated with a new connection will be compared with the value of the capitalised net transportation income that will be generated by the expected total new load over its lifetime (45 years) and the value of the maximum fuel poor voucher derived.

The infrastructure and connection costs include the cost of the new mains and services, connecting the new mains to existing mains and installing pressure controlling apparatus which is not part of any supply meter installation. Reinforcement costs include any costs for the provision of capacity on the existing network system.

Within the first five years of the project commencing and regardless of the actual costs of installing the mains and services infrastructure, the customer will be able to benefit from up to the full value of the maximum fuel poor voucher.

Beyond the first five years of the project the remaining eligible one-off connections will only be able to benefit from either the lesser of the maximum fuel poor voucher or the gross cost of the service connection, and will still be required to pay a mains contribution if the mains costs have not yet been recovered and the project is still within the twenty year period.

Individual one-off connections to eligible domestic customers will be assessed against the FPT in a similar manner to network extension enquires, and qualifying connections will be able to benefit from either the lesser of the maximum fuel poor voucher or the gross cost of the service connection. The value of the Domestic Load Connection Allowance is included in the gross cost of the service connection.

Funding for the connection or network extension project will be made available up to the value of the maximum fuel poor voucher and used to offset the cost of providing infrastructure to eligible premises. Where the infrastructure cost of the project or connection exceeds the funding available, a contribution will be required towards the costs. The methodology to be applied in assessing the necessary contributions is further described in Appendix F.

3.14.3 Network extensions by IGT's

Where an Independent Gas Transporter (IGT) is proposing to undertake a network extension to a fuel poor community, then on receipt of the relevant data SGN will calculate the level of the maximum fuel poor voucher that would apply up to the CSEP. The fuel poor voucher will be equal to the lower of either the proportion of the cost of the connection based on SGN's share of the present value of future transportation revenues to be received by the GDN (ie the present value of CSEP charges), or the share of the NPV of the transportation revenue. Worked examples are shown in Appendix F.

3.14.4 Network extensions by ICP's

Subject to the provisions of section 3.15 of this statement, we will take ownership of any fit for purpose network extension to domestic non-gas fuel poor customers constructed by a third party connections provider (ICP). Where SGN takes ownership and the network extension contains premises that would have formed an eligible network extension fuel poor scheme if constructed by us, we'll make a fuel poor voucher payment to the ICP concerned at the time of adoption, subject to the paragraphs below.

We'll provide such fuel poor voucher payments only where we've received a statement from the ICP concerned, signed by a duly authorised officer of that company, confirming the following:

- The number of designated fuel poor premises connected by means of that network extension, and that those premises have met the fuel poor criteria set out in section 3.14 of this document
- The connection costs determined by the ICP in respect of each fuel poor premise connected by means of that network extension, and confirmation that these are a fair and true representation of the actual costs incurred by that company in relation to the specified fuel poor connections
- That the fuel poor voucher payment will be passed on to the relevant fuel poor customer in respect of each eligible connection in that network extension

Subject to the paragraphs above, the fuel poor voucher payment which SGN will provide to the ICP in respect of each eligible premise in that network extension, will have a maximum value equal to the lesser of the total connection costs determined by the ICP in respect of those premises, or the standard domestic NPV of transportation revenue for that DN as described in 3.14 and Appendix F.

3.15 Adoption of below 7Barg apparatus

Subject to the exception detailed in the paragraph below, we'll adopt any fit for purpose below 7Barg connections apparatus that's connected to our system and that's not intended in whole or part to be operated by another system operator (eg an Independent Gas Transporter).

We will adopt free of charge below 7Barg connections apparatus installed by Independent Connection Providers (ICP) that are registered with the Gas Industry Registration Scheme.

We'll levy a charge in respect of the adoption of below 7Barg connections apparatus that is installed by an ICP that isn't registered with the Gas Industry Registration Scheme. Details of these charges are given in the Connection Services Charges document.

Where an ICP is not registered with the Gas Industry Registration Scheme they should contact us to explain their intentions and to discuss the adoption procedure before carrying out any work in respect of the design or construction of any below 7Barg apparatus that they wish us to adopt.

SGN will make no adoption payment to any organisation for the adoption of below 7Barg apparatus unless such payments are in support of fuel poor system extensions or connections.

3.16 Taking ownership of above 7Barg apparatus

SGN do not currently adopt any above 7Barg apparatus.

Customers are strongly advised to contact us to explain their intentions and to discuss the taking ownership procedure before carrying out any work in respect of the design or construction of above 7Barg apparatus that they wish SGN to take into ownership.

3.17 Traffic management charges

SGN will pass any efficiently incurred costs and liabilities pursuant to prevailing traffic management legislation in force at the relevant date on to customers unless the work falls under section 3.8. These charges may be applicable if any abortive work falling under 3.8 means that SGN are incurred additional TMA costs. Where a job results in abortive visits by SGN that aren't due to the fault of SGN, and this results in additional traffic management costs, then these additional charges may be charged to the customer where applicable. The charges associated with the Traffic Management Act 2004 will be applied to each connections job at the rate appropriate for the highways authority in which the work takes place. This policy has been adopted because it's likely that different highways authorities will implement permit charges and at different times.

3.18 Network approach mains

In certain circumstances (in support of extensions to fuel poor communities for example), SGN may offer a service to extend our system to a CSEP.

3.19 Entry and exit agreements

SGN reserve the right to require a customer to enter into a supply point Network Exit Agreement (NEXA), Network Entry Agreement (NEA) and/or Storage Connection Agreement (SCA) as appropriate. An example of when we will make use of these rights is when a very large daily metered customer (customers taking more than 50 mtpa) is connected.

3.20 Connection – load size thresholds

Loads or sources of gas of 2,196,000kWh (75,000 therms) per annum or less shall not be connected, or be permitted to connect, to any apparatus operating at a pressure of greater than 7Barg, or which has been declared not to be a relevant main.

4 Charges for disconnections and service alterations

In general SGN will follow the same principles that it applies to connection work in respect of pricing the disconnection and alteration of services. It is possible for disconnections and alterations to be designated as sufficiently complex jobs (see Appendix D).

4.1 Disconnections

SGN will disconnect service pipes that SGN owns when requested by the registered user. If someone who owns or occupies the premises, or a person acting as their agent, contacts SGN to request a disconnection, SGN will request their permission to contact the registered user and will then gain permission to disconnect from the registered user.

This document, which relates to connection services, doesn't contain any detail of meter disconnection services or charges. Please refer to our SGN Metering Charges document which is available from sgn.co.uk or from the contact address in Appendix G.

SGN will charge the cost that it reasonably expects to incur when disconnecting a service pipe. In some instances, SGN will make use of standard charges. In these respects charges will be levied in the same way as for connections and will include appropriate overheads.

SGN won't charge for the additional cost where SGN carries out work, in addition to that required by the customer, which is designed to enhance our system.

If work is unable to proceed as a result of the presence of a supply meter installation, or because outlet pipework has not been purged, SGN may charge an abortive visit charge.

4.2 Alterations

SGN will alter the position of any service pipe it owns when this is requested by the registered user or the person who owns or occupies the premises supplied by that pipe, or a person acting as their agent.

SGN will relocate the position of any supply meter installation on a chargeable basis where this is required as a result of the relocation of a gas service pipe.

SGN will charge the cost that it reasonably expects to incur when altering the position of a service pipe. In some instances, SGN will make use of standard charges. In these respects charges will be levied in the same way as for connection installations and will include appropriate overheads.

SGN won't charge for the relocation of an emergency control valve (ECV) where a qualifying person requires it. In these circumstances, SGN will provide a least cost fit for purpose solution to meet the physical needs[3] of the customer. Any additional work beyond this will be chargeable to the customer. SGN will require proof of eligibility with regard to qualification for such alterations and under these circumstances would request that this is provided along with the order documents included with the quote. Proof of eligibility could include documentation such as a letter from an appropriate medical specialist or medical certificate, a state retirement letter/card or proof of being in receipt of disability living allowance.

SGN will not charge additional cost where it carries out work in addition to those required by the customer, which are designed to enhance its system.

Alterations are deemed to be unaffected by the TMA, even where the service is re-laid. An exception to this is where the customer driven element of the work forces SGN to alter the existing service in public carriageway. In such cases, the strategy shown for non-domestic services will be applied.

[3] In this instance, 'physical needs' means that as a result of a person's physical condition, the alteration is required to allow that person or a dependant person living in that premises to operate the emergency control valve. Where the eligibility criteria for the person's physical needs are not met, SGN shall produce a chargeable quote to that person.

4.3 Competition in disconnection and alteration services

Where a <2” steel service pipe is altered by a third party, SGN may require the remaining existing metallic components of the pipe to be replaced by them. In this circumstance we will pay a fixed standard contribution to the person carrying out the alteration. Details relating to this contribution are in our Connections Services Charges document which may be obtained by writing to the address in Appendix G or from sgn.co.uk.

5 Examples of connection charges

Notes on charging examples in this document:

- Charges are indicative only, as at the time of publication, and totals may not tally due to rounding
- Examples of system extensions to fuel poor communities are specifically dealt with in Appendix F
- VAT is excluded, however it may apply in certain circumstances

5.1 Connection from a distribution network system to an existing four bedroom house

Job detail

- Premise located in a town in the Outer M25 area
- Existing premises in a street with a relevant low pressure main
- Gas main 15m from curtilage
- 5m of pipe to lay in garden
- SGN to excavate and backfill in private land
- Customer requires bolt-on meter box
- Anticipated annual consumption: 20,600kWh
- Anticipated peak flow rate: 3 standard cubic metres per hour

Quote details

Customer would receive a standard charge quote as per the relevant Connection Services Charges document. The standard charge is net of the Domestic Load Connection Allowance (DLCA).

At the time of publication (charge for Southern), quote: **£670**.

Costs shown include overheads.

5.2 Alteration of an existing service to a domestic property

Job detail

- Premise located in a town in the Outer M25 area
- Diameter of service pipe to be altered is 32mm
- Operating pressure of service pipe is low pressure
- Length of alteration required is 6m in private land only
- SGN to excavate and reinstate
- SGN to provide bolt-on meter box
- No meter move or meter reconnect is required

Quote details

Customer would receive a standard alteration charge quote as per the relevant Connection Services Charges document.

At the time of publication (charge in Southern) quote: **£904.**

Costs shown include overheads.

5.3 Connection from a distribution network system to a convenience store

Job detail

- Premise located in a town in the Outer M25 area
- Existing premises in a street with a relevant low pressure main
- Gas main 5m from curtilage
- SGN to excavate and reinstate
- Meter box will be placed on outside wall that is also on the curtilage
- Anticipated annual consumption: 35,000kWh
- Anticipated peak flow rate: 4 standard cubic metres per hour

Quote details

Customer would receive a standard quote. At the time of publication, quote: **£2,340.**

Costs include overheads.

5.4 Connection has to be upsized to enable an increase in flow rate at a factory unit that is connected to a distribution network system

Job detail

- Existing premises in a street with a relevant main
- Gas main 10m from curtilage
- From the street the existing service pipe runs for 25m across a yard before terminating in a meter house
- No anticipated difficulties associated with the construction work
- Current annual consumption: 1,350,000kWh
- Anticipated annual consumption: 2,100,000kWh
- Current peak flow rate: 38 standard cubic metres per hour
- Anticipated peak flow rate: 64 standard cubic metres per hour
- No requirement for mains reinforcement
- TMA permit required for disconnection/new connection in the street

Quote details

Customer would receive a non-standard quote. Although the existing service pipe is being upsized, charges would be applied in a similar way to the situation where a service was being laid to the premises for the first time. The cost of cutting off the existing service pipe would be included within the quote.

At the time of publication, quote:

Labour cost	£10,679
Material cost	£647
TMA charge	£276
Total charge	**£11,602**

Costs include overheads.

5.5 Connection from a distribution network system to a new housing estate

Job detail

- Proposed premises in a new development site in Outer M25 area
- 46 proposed properties, a combination of 3 and 4 bedroom houses
- Gas main 10 m from site entrance
- No anticipated difficulties associated with the construction work
- Anticipated aggregate annual consumption: 890,000kWh
- Anticipated peak 6 minute flow rate (entire estate): 58 standard cubic metres per hour
- No requirement for mains reinforcement

Quote details

First 10 properties (10 @ £1,181)	£11,810
Next 36 properties (36 @ £627)	£22,572
Design cost	£306
Total charge	**£34,688**

Costs include overheads.

5.6 Connection from a distribution network system to a new housing estate where reinforcement is required

Job detail

The estate is identical to that in example 5.5, however reinforcement upstream of the connection charging point is required.

Quote details

Customer would receive a non-standard quote. At the time of publication, quote:

Connection costs:	£33,634
Reinforcement costs:	
Labour costs	£18,944
Material costs	£735
Charge	£19,679
Allowed investment	£29,442[4]
Reinf cost charged	£nil
Total Charge	**£33,634**

Costs include overheads.

[4] This information is not normally provided to a customer.

5.7 Distribution network system connection to a village outside of the gas supply area

Job detail

- Existing premises in a village that has no gas supply
- 60 premises in the village, 59 houses and one large public house
- Nearest existing gas main 1850m from village
- No anticipated difficulties associated with the construction work
- Anticipated aggregate annual consumption (provided all premises in the village connect) is 1,312,500kWh
- Anticipated number of connections within 20 years = 42
- Number of consumers that are required to sign up and pay before main laying will start = 17
- Anticipated peak 6 minute flow rate (assuming 42 properties including the public house connect to gas) = 64 standard cubic metres per hour
- No requirement for mains reinforcement

Quote details

Potential consumers in the village are quoted on the basis of non-standard estimate of mains cost (divided by the number that are believed to be likely to connect in 20 years) and the standard charge service costs (except the public house which has a bespoke cost service quote).

At the time of publication, quote:

Mains cost:

Labour cost	£493,286
Materials cost	£35,635
Design cost	£307
Total mains cost	£529,228

Required mains contribution for each connection = **£12,600**

Potential domestic consumers would receive a standard charge quote in respect of each service pipe as per the relevant Connection Services Charges document. These standard charges are net of the Domestic Load Connection Allowance.

The owner of the public house would be charged a bespoke price for their service pipe, which wouldn't include an allowance, however as their annual consumption is likely to be less than 2,196,000kWh they would pay the same mains contribution as the potential domestic consumers.

At the time of publication, domestic service quote = **£670**

(Assumes job in Southern area and SGN to excavate).

Total payment required from each domestic consumer within the infill period would be **£13,270**

All costs shown include overheads.

5.8 Connection from a distribution network system to another Gas Transporter's system supplying a housing development

Job detail

- Gas Transporter's system situated adjacent to an existing relevant SGN main in Southern area
- Gas Transporter to install their system up to relevant SGN main
- No anticipated difficulties associated with the construction work
- Anticipated aggregate annual consumption 1,560,000kWh
- Anticipated peak 6 minute flow rate: 45 standard cubic metres per hour
- No requirement for mains reinforcement

Quote details

Customer would receive a standard quote. At the time of publication, quote: **£2,412**

All costs shown include overheads.

Appendix A - Key definitions

Alteration: Any change made to an existing service pipe, and associated equipment, to premises.

Approach main: A pipe that will become a relevant main (not necessarily a relevant main that is part of SGN's system) that is designed to connect a new system of pipes with an existing transportation system.

Bilateral contractual agreements: The bilateral contract agreement will be drawn up between SGN and the delivery facility operator and will set out the technical, engineering and charging details of the connection.

Complaint handling procedure: This procedure specifically identifies the help available should the service provided by SGN prove to be unsatisfactory in any way. The procedure is available in hard copy from the address given in Appendix G or on sgn.co.uk.

Connected system exit point (CSEP): A connection to a more complex facility than a single supply point (eg a connection to a pipeline system operated by an IGT).

Connected system: A pipework system owned and managed by a Gas Transporter/connected system operator which is connected to the SGN system by a connected system exit point (CSEP).

Connected system operator: The operator of a connected off take system.

Connection charging point: The closest economically feasible[5] point (taking into account any customer request for gas to be made available at a particular pressure) on our system, which is deemed to have enough capacity to supply the new load disregarding existing loads. The charging point creates the financial distinction between connection costs that are fully chargeable to the person concerned, and upstream reinforcement costs which we may fund subject to any contractual requirements.

Connection costs: Are, in respect of system exit connections, the costs of all physical connection work downstream of the connection charging point which may include specific reinforcement costs downstream of the connection charging point.

Design work: The design work that must occur before construction work can commence. Very small projects, such as the connection of small domestic premises, require little in the way of design and no charge is made in respect of design for these projects. SGN will apply standard design charges in respect of larger, but routine, connection projects. Larger and more complex projects are designated as sufficiently complex projects. They may require several stages of design work (eg a project may require a feasibility study before it's possible to proceed to a detailed design study).

Disconnection: This occurs when a service pipe is disconnected from the main.

Distribution network system: The relevant gas pipeline system owned by SGN within the distribution network, as defined in paragraph 1 in Special Condition E2A of the SGN License.

Diversion: A change made to the route of an existing main or the relocation of other gas transportation (not service pipe associated) assets.

Domestic Load Connection Allowance (DLCA): Is the contribution that SGN is required to make towards the cost of installing the connection from a premise to the main as required by Condition 4b paragraph 1 of its licence. The contribution is for the laying of the first ten metres of pipe in land that is dedicated to public use. The allowance only applies where the property is wholly or mainly used for domestic purposes and is situated within 23m of a relevant main. The DLCA doesn't apply where customers receive the fuel poor voucher as set out in section 3.14 and Appendix F.

DN interruptible capacity methodology statement: A methodology that sets out general arrangements for inviting and selecting applications for interruptible network capacity and arrangements for the selection and acceptance of offers for interruption.

[5] A consumer's premises may be closer to a main that is on the 'wrong' side of a significant obstacle (eg a river) than it is to another main. In this circumstance, the connection charging point would be deemed to be on the alternative main as the cost of laying a connection pipe across the obstacle would be prohibitive.

Economic Test (ET): Used to calculate the maximum economic investment we can make for any specific load. A load is deemed to be economic where the incremental transportation income from the additional load exceeds the incremental costs of the load. The test shall be applied over the anticipated life of the load.

Emergency control valve (ECV): A valve for shutting off the supply of gas in an emergency, intended for use by a consumer of gas, and being installed at the end of a service pipe or network lateral.

Final connection: Consists of the labour and materials to physically connect the pipe at the point where it interfaces with our relevant main but doesn't include costs associated with excavation, backfill or reinstatement.

Fit for purpose: This refers to a design that will safely transport the required gas at an appropriate pressure throughout the life of the apparatus taking into account our obligation for economic pipeline system development.

Fuel poor test (FPT): Similar to the Economic Test, it's used to calculate the maximum fuel poor voucher that may be applied when assessing the contribution required to provide infrastructure to eligible fuel poor customers.

Fuel poor voucher: Equal in value to either the maximum fuel poor voucher or to the gross cost of the service infrastructure, the fuel poor voucher describes the value of the connection charges that are offset as a result of the application of the fuel poor test and is determined in the manner set out in section 3.14 and Appendix F of this document. The fuel poor customer can use the voucher as full or partial payment of the cost of connection.

Gas (Calculation of Thermal Energy) Regulations: Ofgem regulations which stipulate the requirements for companies to ensure that volumetric gas meter readings are accurately converted into energy bills.

Gas Distribution Network (GDN): A specific geographic area for which Ofgem have granted a licence to provide gas transportation services. It's defined with reference to the aggregate of its local distribution zones (LDZ) as defined in the UNC.

Gas Distribution Price Control Review (GDPCR): A periodic review carried out by Ofgem to determine the revenue which the GDNs are allowed to recover from their customers, and to review the incentive regime under which they operate and the quality of service they provide.

Gas Industry Registration Scheme (GIRS): A scheme developed to allow independent Connection Providers(ICP's) to carry 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 Transporters (GTs): Provide the pipelines through which gas is transported across the country to end users. This is a licensed activity and is regulated by Ofgem.

General reinforcement: Is reinforcement of SGN's pipeline system for load growth associated with individual premises expected to consume 73,200kWh per annum or less, and for general load growth where this can't be associated with specific requests for a new or an increased load or an interruptible to firm load transfer.

Independent Connection Provider (ICP): An organisation that designs and constructs gas infrastructure for adoption by Gas Transporters. They may also offer to construct other utility related equipment (eg a water service pipe and/or install gas appliances and/or offer other services).

Independent Gas Transporter (IGT): A licensed Gas Transporter other than a GDN or the National Transmission System.

Infill: The extension of new relevant mains to an area having a number of existing premises or a combination of new and existing premises where not all the owners or occupiers of those premises have expressed a desire to be connected to a gas supply at the time the mains are laid. Individual connection charges are based on the likely uptake of gas over a twenty year period and the Infill can only progress if sufficient acceptances are received to make the project economic. The charging arrangements for Infills are covered by the Gas Connection Charges Regulations.

Interruption application process: Enables users to apply for Interruptible LDZ Capacity in respect of all relevant supply points and CSEPs with an AQ greater than 5,860,000 kWh, both firm and interruptible. Annual applications for Interruptible LDZ Capacity will occur each year, at least three gas years ahead of the applicable gas year, for example June 2013 for the gas year starting October 2016. DNs may be permitted to tender for interruptible rights in timescales shorter than three gas years through the ad hoc interruptible application process.

Interruption offer: An offer by a user to designate one or more tranches of DM supply point capacity at an eligible supply point as interruptible in any interruptible period.

LDZ: Local distribution zone.

Maximum economic investment: The maximum economic investment is the present value of the future income of the project over its estimated life based on current transportation charges, net of additional operating costs.

Maximum fuel poor voucher: The present value of the future income of a connection or system extension scheme to fuel poor communities taken over its estimated life based on current transportation charges, net of additional operating costs.

Minimum connection: The apparatus required to connect infrastructure laid by a third party to an above 7Barg system operated by SGN. We won't permit a third party to install minimum connection apparatus. Minimum connection apparatus will remain in our ownership irrespective of the ownership of the downstream system.

Multiple: The provision of more than two new services (which may include an element of mains infrastructure) to an area having new or existing premises. They may be requested by a single person or venture, or include areas where all of the owners or occupiers have expressed a desire to be connected to a gas supply. A single contract to lay all pipes will be formed between SGN and an agent, acting on behalf of all those who wish to be connected, or where all the potential consumers individually contract to be connected to gas before main laying is commenced.

Network Entry Agreement (NEA): The agreement that provides procedures and terms in respect of a system entry point so as to facilitate the safe and efficient operation of a delivery facility, the entry facility and the system.

Network Exit Agreement (NEXA): The agreement between SGN and a shipper or consumer that allows gas to flow through a CSEP and sets out matters in relation to the measurement of gas off taken by shippers and the ownership and nature of plant of the relevant plant.

Net Present Value (NPV): The net present day value of the sum of a stream of future income (treated as positive) and or costs (treated as negative) over a specified period of years and discounted using a specified discount rate.

Non-standard quote: Any quote other than a standard quote.

Ofgem (The Office of Gas and Electricity Markets): Is the organisation responsible for economic regulation of the energy (gas and electricity) markets. Ofgem's principle objective is to protect the interests of consumers, present and future, wherever appropriate by promoting effective competition. Ofgem is required to carry out its functions in the manner in which it considers best calculated to contribute to the achievement of sustainable development and to secure a diverse and viable long-term energy supply.

P18 Pipelines: SGN's Work Procedure for Working on Pipelines Containing Defective Girth Welds or Girth Welds of Unknown Quality. T/PR/P/18

Physical connection work: Work to supply and lay gas services and mains, including any associated equipment and work to reinforce SGN's system.

Planning and advanced reservation of capacity agreement (PARCA): A PARCA is a bilateral contract that allows long term National Transmission System (NTS) entry and/or exit capacity to be reserved for a customer

while they develop their own project, before they buy that reserved capacity. A PARCA is required when a load is to be booked firm (this includes load increases and interruptible to firm transfers) and specific reinforcement upstream of the charging point is required. A PARCA will oblige the person making the connection (or load increase or transfer) to either ensure that their registered user books firm capacity (in respect of their supply point, to at least the level of the PARCA) or to pay SGN an appropriate amount to compensate for the loss of transportation revenue. Each PARCA will remain in force for the time specified within it.

Private land: Property owned or occupied by the customer.

Qualifying person: A person who requires the relocation of their gas meter and/or emergency control valve because of his or her physical condition, who is either of state pensionable age, registered disabled or chronically sick.

Registered user: User in whose name the supply meter point is registered.

Reinforcement: Systems affected by the connection of a new load (or an interruptible to firm load transfer or an increase in load at an existing connection) may require reinforcement of the pipeline system, prior to the load being taken off. This reinforcement may take the form of new pipelines being laid or the installation or modification of other equipment to increase the pressure within the pipeline system.

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 1986 as amended by the Gas Act 1995.

Special services: Bought in service costs to cover charges to complete connection work (eg scaffolding, premium hour working etc).

Specific reinforcement: Reinforcement required when we have to undertake system reinforcement, or additional system reinforcement, as a result of one or more of the following:

- An increase in the rate of gas consumption at a supply point
- An increase in the rate of gas consumption of a connected system
- The connection of a new supply point where the consumer in question is anticipated to be likely to consume more than 73,200kWh per annum
- The connection of a connected system
- Where there has been an interruptible to firm load transfer

Standard quote: A desktop or website quote that results in the application of standard pricing methodology.

Storage connection agreement: The storage connection agreement relating to a storage connection point and shall constitute both the Network Entry Agreement and Network Exit Agreement for the purposes of Network Code, between the Gas Transporter and the connected system operator and the delivery facility operator.

Sufficiently complex jobs (SCJ): See Appendix D.

Supply meter installation: Is the gas meter and associated apparatus used to measure the volume of gas off taken at a supply point.

Supply point: System exit point comprising the supply meter installation.

Typical Domestic Consumption Values (TDCV): Industry standard values for the annual domestic gas and electricity used by a typical consumer.

Traffic Management Act 2004 (TMA): Legislation introduced to tackle congestion and disruption on the road networks. The Act puts a duty on the local traffic authorities to ensure movement of traffic in their areas and surrounding areas. TMA provides additional powers to the local traffic authorities to manage coordinated streetworks, enforce utilities, highway authorities (and others) to apply for permission to carry out work in certain roads by means of permit schemes, lane rental and manage parking policy.

Uniform Network Code (UNC): Means the uniform network code prepared by SGN (together with the other relevant gas transporters) pursuant to Standard Special Condition A11(6) of its Licence.

Weighted Average Cost of Capital (WACC): Is the average rate of return a company expects to compensate all its different investors. The weights are the fraction of each financing source in the company's target capital structure.

Winter: Is defined as the period from 1 November in any year until and including 30 April in the following year.

Appendix B - Additional points relating to capacity

Capacity booking
The provision of a connection to SGN's system does not confer any rights on a party to off take or introduce gas. Gas may only be off taken/introduced by a registered user who is a party to the Uniform Network Code and has been licensed by the Gas and Electricity Markets Authority to do so.

Allocation of available capacity
SGN will allocate available capacity on a first come first served basis. This means that (except where an ARCA is applicable) where a main or other apparatus has surplus capacity, that capacity will be provided to the first registered user who books it in accordance with the Uniform Network Code. Capacity will be allocated on the basis of the date when a registered user confirms their site nomination and has nothing to do with any connection contract.

In any situation where the Acceptance of a Quote impacts upon the availability of capacity on the network, to the extent that there would be a change to the reinforcement contribution or the lead times quoted of any other live Quote on the same network, those Quotes will be withdrawn and requoted. Such Quotes would be considered 'Interactive', with the available capacity being provided on a 'first past the post' basis.

In such an event, the revised Quote will state that there have been other demands for the capacity that was available at the time of their Quote.

Construction of capacity
It's sometimes necessary for SGN to reinforce its system to enable additional gas to be off taken or to permit gas to be introduced into its system. This work, particularly where it affects an above 7Barg system, may take a period of time to complete. We'll endeavour to inform customers as soon as is reasonably practical, how long a proposed reinforcement project is likely to take, and consequently the likely date when gas may be off taken/introduced.

Appendix C - Provision of meter houses/boxes

SGN will provide meter houses/boxes to customers who have requested a service pipe from SGN on a chargeable basis with, the exception of cavity/inset meter boxes, which the customer must obtain and install before SGN commences engineering work.

For the purpose of this statement, a meter box refers to a meter housing which is designed to contain a gas meter of a volumetric flow capacity of six standard cubic metres per hour or less.

Meter housings refer to all other structures, which are purposely designed to contain gas meters. Please note that these will need to comply with GDN/PM/GT2 – Management Procedure for Approval a Meter Housing Design available from the Energy Networks Association website;
http://www.energynetworks.org/gas/regulation/gas-transporter-procedures.html

SGN will fit bolt-on and/or uniboxes as part of our standard offering for domestic services. SGN will not install cavity meter boxes.

All charges made in respect of the installation of meter houses/boxes will include applicable overheads.

A meter housing or box becomes the property of the owner of the premise after it's been installed, and thereafter maintenance is the responsibility of the premise owner.

SGN offers a one year guarantee in respect of meter boxes that it supplies, however this is invalidated if any defect or damage has been caused other than by fair wear and tear. SGN doesn't offer a guarantee in respect of meter houses.

Some retail outlets will stock certain types of meter box.

Appendix D - Sufficiently complex jobs

Connection and reinforcement work may be considered as sufficiently complex when they're of significant value or are technically challenging. Where a project includes both reinforcement and connection work then each part will be considered separately and may be deemed sufficiently complex. For consistency, the following criteria are used to determine whether a request is sufficiently complex.

Connections are sufficiently complex when they are connected to an above 7Barg system, or where there are known obstacles on the proposed route of the new apparatus and the anticipated total cost of the construction work including applicable overheads is expected to exceed £10,000, or where the total construction costs including applicable overheads is expected to exceed £100,000.

Reinforcements are sufficiently complex when the reinforcement includes any apparatus that's designed to operate at above 7Barg or where there are known obstacles on the proposed route of the reinforcement apparatus and the anticipated total cost of the construction work including applicable overheads is expected to exceed £10,000, or where the total construction costs including applicable overheads is expected to exceed £250,000.

All entry and storage connections are treated as being of sufficient complexity.

When a project is determined to be of sufficient complexity, SGN will quote, charge and having received payment, will carry out the design of apparatus prior to estimating the cost of constructing any equipment. SGN may decide that it's appropriate to split the design work into stages (feasibility study, conceptual design study etc) with each stage being quoted, charged and completed before commencing a subsequent phase unless extenuating circumstances apply.

Sufficiently complex jobs are charged on the basis of anticipated cost plus applicable overheads.

As indicated above, SGN will supply the customer with a design study in respect of sufficiently complex connections. Apart from any minimum connection work, the customer may use this information under licence, to independently construct the connection apparatus. SGN will not provide a design report in respect of sufficiently complex reinforcement work.

Any charge made in respect of sufficiently complex reinforcement may be refunded subject to the Economic Test, where applicable, when the project proceeds.

List of obstacles

The list below details those obstacles which have the potential to determine a project is sufficiently complex. Projects which have at least one obstacle and which are exclusively <7Barg will only be determined to be sufficiently complex if they're likely to cost in excess of £10,000 including overheads.

List of obstacles:

- Work which involves the crossing of, or which is affected by, the presence of motorways, dual carriageways or highways, and which have been designated by the Highway Authority to have special engineering difficulties
- Work which involves the crossing of, or which is affected by, the presence of a railway line or tramway
- Work which involves the crossing of, or which is affected by, the presence of a river, stream, estuary or canal (navigable or otherwise), body of water, aqueduct, or a drainage channel
- Where work is in, or likely to affect, a site of special scientific interest (SSSI), nature reserve, scheduled monument or archaeological site
- Where work is situated within, or likely to affect, a woodland, marsh, peat bog or coastal wetland
- Connections to blocks of flats where any service pipe will terminate more than five stories above the adjacent ground level
- Work which involves any requirement for a public enquiry or planning permission, including planning permission associated with any buildings including meter houses

- Where the route of any apparatus involves a significant (greater than 2m) change in elevation within a short horizontal distance (eg a cliff or retaining wall)
- Where any apparatus will be laid in contaminated ground, disused slag heaps or rubbish dumps
- Where any apparatus will be laid in land likely to suffer from severe subsidence or other significant ground movement including the laying of apparatus near to disused mine shafts/workings
- Where work is likely to be affected by special security provisions (eg military bases, prisons etc)
- Where work will take place within top tier COMAH sites
- Any other work where special difficulties or unusually high costs might occur

Appendix E - Description of Economic Test

Background

The Economic Test (ET) is a financial assessment tool that is designed to ensure Gas Distribution Network (GDN) owners meet their Gas Act obligations to develop and maintain an efficient and economical pipeline system for the conveyance of gas (Gas Act, section 9(1)(a)), and to comply with any reasonable request to connect to its system any premises or any pipeline system operated by an authorised transporter (Gas Act, section 9(1)(b)).

The ET is used to identify requests for new capacity which would be uneconomic because the revenue from the new load will not provide the allowed rate of return on the level of investment required to supply the new load. If such projects proceed without any contribution from the connecting party the shortfall in return will be made up by a rise in the average level transportation charges to all transportation customers. To avoid this, the connecting party is asked to make a capital contribution to fund the uneconomic part of the investment. The ET therefore avoids existing GDN customers having to subsidise investment in uneconomic new loads through higher transportation charges.

Contributions, if payable, are made by means of an up-front payment, enabling the standard transportation charges to be applied when the new load is connected.

Please note that both the cost associated with additional NTS exit capacity bookings and the revenue attributable to the ECN transportation charge introduced with effect from 1 October 2012, are excluded from the Gas Distribution Economic Test. As Gas Distribution Networks are allowed to fully recover the costs, revenue and costs are assumed to be equal with a nil cost impact for the individual load.

Methodology

The ET compares the cost of system reinforcement specifically required to take on the new load with the additional transportation revenue from the load net of the additional operating and system costs caused by the new load. The net annual transportation revenue is capitalised over a period of 25 or 45 years, depending on the size of the load, at the rate of return allowed in the Price Control. Where the reinforcement cost is greater than the capitalised net transportation revenue, the annual revenue from the load will not provide the allowed rate of return on the investment. To avoid the shortfall in return being recovered by increased charges to other customers, the customer is required to pay a contribution towards the cost of the reinforcement. This contribution will be equal to the difference between the reinforcement cost and the capitalised net transportation revenue.

Reinforcement costs

Specific reinforcement costs are the engineering costs of providing capacity for the new load. The treatment of specific reinforcement costs depends on whether they're upstream or downstream of the connection charging point (CCP), which is the point on the transportation system that is deemed to have enough capacity to supply the new load disregarding existing loads. Reinforcement costs downstream of the CCP are always fully chargeable to the connecting party as part of the connection costs, and so aren't included in the ET. Reinforcement costs upstream of the CCP are included within the ET, but only the cost of reinforcement specifically required to provide capacity for the new load is included.

Net income

The purpose of the ET is to determine the level of return provided by the new load. Therefore the income used in the ET is the annual transportation income from the new load but with any additional operating or system costs caused by the new load netted off. These costs are:

Operating costs
The ET includes those operating costs that are estimated to increase as a result of the new load:

- Commodity costs. These are the additional shrinkage and odourisation costs which will be caused by the increased throughput
- Formula Rates (business rates). The amount of business rates that a network has to pay is linked to the regulatory asset value (RAV) of the business and increased investment will increase the RAV

System costs
The ET includes those system costs that are estimated to increase as a result of the new load. These are the capital costs of developing additional capacity within the system to support the new load. The costs are based on the business plan submission for or the latest five-year price control.

Capitalisation factor
The annual transportation income expected from the new load is capitalised over 25 or 45 years, depending on the size of the load, at the rate of return allowed in the PCR. New loads up to an estimated AQ of 58,600MWh are capitalised over 45 years. New loads with AQs above that are capitalised over 25 years. Ofgem introduced this distinction following a recommendation in their February 2006 document 'Conclusions on the review of the structure of gas distribution charges'.

The most appropriate rate of return for the purpose of capitalising future income streams is deemed to be the vanilla weighted average cost of capital of 3.89% (GD1 PCFM 2014-15). At this rate of return the capitalisation factor over 45 years is 21.09 and over 25 years it is 15.81. This means that to arrive at the value, which has to be compared with the investment cost, the net annual income is multiplied by 21.09 or 15.81 depending on the size of the load.

Comparison of costs and income
Before comparing the annual revenue from the new load to the reinforcement cost, the annual operating costs are netted off the annual revenue, and then the net revenue is capitalised. The system costs, which are already capital costs, are then also netted off against the capitalised revenue. This gives the net capitalised revenue which can be compared to the investment costs.

The capitalised net income is equivalent to the maximum level of investment on which the net transportation revenue provides the allowed rate of return. It therefore becomes the maximum economic investment for the transporter. The actual level of investment required is then subtracted from the maximum economic investment. If the difference is positive (actual investment is less than maximum economic) then the new connection is economic without a contribution to the reinforcement costs. If the difference is negative (actual investment is greater than maximum economic) then connection is not economic without a contribution being paid. The level of the contribution will be equal to the difference between the actual investment and the maximum economic investment.

Technical points in the comparison of costs and income:

- Both income and costs are assumed to be constant in real terms over the appraisal period
- It is assumed that terminal values will be recovered from all customers after the end of the appraisal period
- A depreciation period of 45 years is used. This means that when a 25-year appraisal period is used, not all the initial allowed investment is recovered during the appraisal period

Appendix F - Fuel poor assessment

The fuel poor test (FPT) is used to calculate the maximum fuel poor voucher that may be applied against all the connection, reinforcement and infrastructure (mains and services) costs associated with the project or connection. These costs will include:

- Provision of the new mains and/or services
- Connecting the new mains or services to existing mains
- Installing pressure controlling apparatus - which is not part of any supply meter installation
- Any costs for the provision of capacity on the existing network system (reinforcement)

For eligible consumers, funding will be available for all the project or connection costs up to the value of the maximum fuel poor voucher. Any funding shortfall will be met by customer contributions.

Application of fuel poor discount

The fuel poor voucher will be available to eligible existing domestic consumers on the following basis:

1. The calculation of contributions for network extensions to fuel poor communities will be assessed over a twenty year horizon:
    a. The twenty year period starts on the day the relevant main is commissioned
    b. Where customers at eligible premises wish to connect within five years of the relevant main being commissioned, and provided the mains cost have not yet been recovered, then the connection charge will consist of a relevant share of the mains cost plus the current cost of laying the service, less the value of the maximum fuel poor voucher
    c. Once the cost of the mains infrastructure is fully recovered, eligible domestic connections within the network extension area can still benefit from the value of the allowable maximum fuel poor voucher, provided the five year network extension period has not expired
2. The maximum fuel poor voucher is calculated using the fuel poor assessment and will be based on the transportation charge rates applicable at the time that the extension project or connection is quoted, and will be based on transportation charges for a domestic customer with a typical AQ of 12,000kwh (Figure based of the Ofgem medium value from the gas Typical Domestic Consumption Value (TDCV) from September 2017) using a discount rate of 3.89%, being equal to the pre-tax WACC assumed in the derivation of the present Distribution Price Control (2013-21) over a period of 45 years. (The TDCV will be periodically updated, the WACC is revised annually, both of these values are published by Ofgem)
3. For network extension projects, the full value of the voucher will only be available in the first five years of the project and will not vary throughout the five year period.
4. All eligible consumers within the fuel poor area will receive a voucher which can be used within the first five years of the project. The voucher can be used to offset the infrastructure cost. If, after taking account of the fuel poor voucher, there's a shortfall in meeting the cost of the project infrastructure, then a customer contribution will be required.
5. Beyond the first five years of the project, qualifying connections will only be eligible to receive the lesser value of the gross cost of the service connection or the fuel poor voucher.
6. Non-domestic properties situated within the network extension won't be eligible for a fuel poor voucher, and those consuming greater than 2,196MWh (75,000 therms) per annum will pay a contribution towards the full cost of the mains in direct proportion with their share of the total annual off take quantity of the network extension.
7. Where a consumer likely to consume more than 2,196MWh (75,000 therms) per annum is situated within the network extension, and declines to connect at the time when mains are laid, then that consumer will not be permitted to connect to the network extension unless:

- Either the twenty year network extension period has expired, or
- The mains contribution has been recovered, or
- They fund sufficient reinforcement to enable the remaining not above 2.196MWh (75,000 therms) per annum premises within the network extension which might connect to gas, to be connected without there being any requirement for any additional reinforcement within the twenty year period.

Illustrative examples of system extensions to fuel poor communities

Example 1

- Existing premises in a village with no gas supply that is classed as fuel poor
- 100 premises in the village, all domestic
- No anticipated difficulties associated with the construction work
- Anticipated aggregate annual consumption (provided all premises in the village connect) is 1,900,000kWh
- Anticipated peak flow rate: 92 standard cubic metres per hour
- Anticipated number of connections within five years is 100
- No requirement for mains reinforcement

Quote details

Based on the assumed penetration level, the individual value of the fuel poor voucher is calculated from the fuel poor test. This is then used to offset the cost of the mains and service infrastructure as described below.

NPV of future transportation	£1,500
Individual value of fuel poor voucher	£1,500
Mains infrastructure	£100,000
Cost of mains per property	£1,000
Cost of services per property	£ 500
Total cost per property	£1,500

Each eligible consumer within the project will receive an individual voucher equal in value to the NPV of future transportation income. Within the first five years of the project the consumers may use their voucher to offset the cost of connection. In this example the value of the voucher equals the individual cost of connection. Therefore, no further customer contribution is required.

Example 2

- Existing premises in a village with no gas supply that is classed as fuel poor
- 100 premises in the village, all domestic
- No anticipated difficulties associated with the construction work
- Anticipated aggregate annual consumption (provided all premises in the village connect) is 1,900,000kWh
- Anticipated peak flow rate: 92 standard cubic metres per hour
- Anticipated number of connections within five years is 100
- No requirement for mains reinforcement

Quote details

Based on the assumed penetration level, the individual value of the fuel poor voucher is calculated from the fuel poor test. This is then used to offset the cost of the mains and service infrastructure as described below.

NPV of future transportation	£1,500
Individual value of fuel poor voucher	£1,500
Mains infrastructure	£100,000
Cost of mains per property	£1,000

Cost of services per property	£ 900
Total cost per property	£1,900

Each eligible consumer within the project will receive a voucher equal in value to the NPV of future transportation income. Within the first five years of the project the consumers may use their voucher to offset the cost of connection. In this example the value of the voucher is less than the individual cost of connection. Therefore an additional contribution of £400 per property is required.

Example 3

- Existing premises in a village with no gas supply that is classed as fuel poor
- 80 premises in the village, all domestic, all eligible
- 20 premises in the village non-domestic and not eligible
- No anticipated difficulties associated with the construction work
- Anticipated aggregate annual consumption (provided all premises in the village connect) is 2,500,000kWh
- Anticipated peak flow rate is 115 standard cubic metres per hour
- Anticipated number of connections within five years is 100
- No requirement for mains reinforcement

Quote details

Based on the assumed penetration level, the value of the individual fuel poor voucher is calculated from the fuel poor test. This is then used to offset the cost of the mains and service infrastructure as described below:

NPV of future transportation	£1,500
Individual value of fuel poor voucher	£1,500
Mains infrastructure	£100,000
Cost of mains per property	£1,000
Cost of services per property	£500
Total cost per property	£1,500

Each eligible consumer within the project will receive a voucher equal in value to the NPV of future transportation income. Within the first five years of the project the consumers may use their voucher to offset the cost of connection. In this example the value of the voucher equals the individual cost of connection and no additional contribution is required from the domestic consumers. Non-domestic consumers however, will be required to pay their shared mains contribution charge and the full cost of their service, which in this example is £1,500.

Example 4

One–off connection standard charge eligible.

Eligible premise within 23m of a relevant main.

Fuel poor voucher	£1,500
Gross cost of service	£1,200

Gross cost of service is less than the fuel poor voucher. No additional charge is required. Where the gross cost of the service is greater than the fuel poor voucher, a customer contribution will be required to make up the difference.

The value of the Domestic Connection Load Allowance is included in the gross cost of the service connection.

Example 5

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
NPV of future transportation income	£1,500
IGT receives 40% of NPV of future transportation income	£600
SGN receives 60% of future transportation income	£900
SGN connection contribution to IGT = £1,200 x 60%	£720
Amount put into RAV	£720

SGN will make a contribution of £720 towards the fuel poor voucher, 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 6

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
NPV of future transportation income	£1,500
IGT receives 40% of NPV of future transportation income	£600
SGN receives 60% of future transportation income	£900
SGN connection contribution to IGT = 1,500 x 60%	£900
Amount put into RAV	£900

SGN will make 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 7

One-off connection to an IGT:

One premise located 12m away from the relevant main.

Gross cost of service pipe (standard connection charge plus 10m allowance)	£800
NPV of future transportation income	£1,500
IGT receives 40% of NPV of future transportation income	£600
SGN receives 60% of future transportation income	£900
SGN connection contribution to IGT = £800 x 60%	£480
Amount put into the RAV	£480

SGN'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.

Appendix G - Contact information

Please contact our Customer Service Centre where our dedicated team will be happy to deal with your enquiry:

Post:	SGN
	Inveralmond House
	200 Dunkeld Road
	Perth
	PH1 3AQ
Telephone:	0800 912 1700
Fax:	0800 912 1701
Email:	customer@sgn.co.uk

Appendix H - Complaint handling procedure

Step 1

We always aim to provide the best possible service and if there is a problem, we will do all we can to put things right for you.

Our representatives on site will be happy to speak to you, or you may prefer to call our Customer Service team on 0800 912 1702 (option 1), alternatively you can email or write to us at the following address:

Email: customer@sgn.co.uk

Post: SGN, Inveralmond House, 200 Dunkeld Road, Perth PH1 3AQ

It would be helpful if you could provide the following information as this will enable us to deal with your complaint more efficiently:

1. Full contact details (name, company name (if applicable), address, telephone number and email address)
2. Full site address and postcode
3. Any relevant reference numbers

We use the information gathered from enquiries and complaints to continually improve the services we provide to our customers.

The following information can be obtained in Braille, audio or large print on request and assistance can also be provided where English is not the first language.

What we will do to put things right

We treat all complaints seriously and confidentially and your complaint will be handled in a courteous, prompt and straightforward manner.

We will investigate your complaint fully, and provide a substantive response within 10 working days or 20 working days where a site visit or third party enquiry is required.

The different resolutions that you can expect from our complaints are:

- An apology where we've failed to provide a satisfactory level of service
- An explanation addressing the issue(s) you've raised
- Taking any appropriate remedial action
- Awarding compensation, in the appropriate circumstances, under our Guaranteed Standards of Service as prescribed and monitored by our regulator Ofgem, and
- Awarding a goodwill payment, if appropriate to the circumstances

Step 2

If you cannot reach agreement with our Customer Service team or our local depot representatives, the matter can be escalated to the Head of Customer Experience who has the authority to review your complaint and take an independent view.

The Head of Customer Experience will investigate your complaint fully, and provide a substantive response within 10 working days or 20 working days where a site visit or third party enquiry is required from receipt of your escalated concern(s).

The contact details are:
Head of Customer Service
SGN
Inveralmond House
200 Dunkeld Road
Perth
PH1 3AQ

Email: headofcustomerexperience@sgn.co.uk

Step 3

Independent review – Ombudsman Services: Energy
We recognise that we may not always succeed in wholly resolving your complaint.

If you are not happy and we have not reached a satisfactory resolution within 8 weeks of you making your complaint, or we've issued a deadlock letter, you can seek the assistance of the Ombudsman Services: Energy,an independent dispute resolution service.

The Ombudsman Services: Energy will investigate your complaint but will expect you to have first approached our company and followed this Complaint Handling Procedure.

The Ombudsman Services: Energy will make a final decision and inform you of the outcome.

Ombudsman Services: Energy can be contacted as follows:

Ombudsman Services: Energy
PO Box 966
Warrington
WA4 9DF

Telephone:	0330 440 1624
Fax:	0330 440 1625
Email:	enquiries@os-energy.org
Website:	www.ombudsman-services.org/energy.html