



# Transmission and Distribution System

## Performance Report 2012

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## Introduction

Gaslink was established under EU Gas Directive 2003/55/EC and in accordance with Statutory Instruments (SIs) No. 760/2005 and 377/2007. The unbundling requirements of this legislation place the Transmission and Distribution system operator functions with Gaslink which is legally separate from the remainder of Bord Gais Eireann (BGÉ).

In accordance with the SIs BGÉ and Gaslink entered into an Operating Agreement in 2008 that set out the terms on which each party would fulfil their respective functions regarding the BGÉ Transportation System.

Gaslink executes most of its functions through Bord Gáis Networks (BGN) as described in the Operating Agreement. The Agreement sets out the processes and support functions that are provided under contract by BGÉ (acting through its networks division BGN) to Gaslink. The Transmission System Operator (TSO) and Distribution System Operator (DSO) licences granted to Gaslink are published on the CER website<sup>1</sup>. Condition 17 of the TSO licence and Condition 19 of the DSO licence require Gaslink to report against a range of criteria in relation to the overall standards of performance of the Transmission and Distribution Systems. The performance standards have been determined by the Commission for Energy Regulation (CER) based on performance criteria which Gaslink submitted for approval by the CER<sup>2</sup>. These performance criteria may be amended by the CER from time to time by notice to Gaslink.

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<sup>1</sup> <http://www.cer.ie/en/gas-distribution-network-licences.aspx>

<http://www.cer.ie/en/gas-transmission-network-licences.aspx>

<sup>2</sup> The Gaslink Performance Criteria was approved by the Commission in August 2009 and can be found at the following link: <http://www.cer.ie/en/gas-transmission-network-decision-documents.aspx?article=d6040781-9b0c-4039-b6f0-89ad00dbab6d>

## Section 1: Transmission System

### Transmission System Data

#### 1.1.1. Throughput

Throughput is the total amount of gas transported through the Transportation System in Ireland each year.

**Table 1.1.1**

	Total Gas Transported (GWh)	Daily Average Transported (GWh)	Peak Day Transported (GWh)
<b>2009</b>	56,426	155	225
<b>2010</b>	62,316	171	258
<b>2011</b>	54,762	150	230
<b>2012</b>	*53,541	146	217

\* Total gas transported in Calendar year 2012 includes 50 GWh of fuel gas transported for NI which quantity was consumed at Beattock Compressor Station. While gas transported for RoI Power-Gen continued to show the decrease seen for 2011 against 2010, the 7% decline for 2012 against 2011 was significantly less than that for 2011 against 2010 which showed a decline of 14%. Fuel usage of 852 GWh for 2012 (which was down on the 874 GWh for fuel usage for 2011) broadly reflected the reduced Total Gas transported for 2012.

#### 1.1.2. Demand change

**Table 1.1.2**

	Demand Change (%)	Demand Change (Energy)
2009	-3.8%	-2,254 GWh
2010	+10.44%	+ 5,890 GWh
2011	-12.12%	- 7,554 GWh
2012	-2.2%	-1,221 GWh

Table 1.1.2 reflects the decreased demand for gas in 2012, down 2.2% from the previous year.

#### 1.1.3. System Efficiency

##### (a) Delivery

Table 1.1.3 reflects the amount of Gas delivered to Shippers as a percentage of the actual nomination amount.

**Table 1.1.3(a)**

KPI	Nominated vs. Delivered Target*	Actual Performance			
		2009	2010	2011	2012
<b>Moffat Delivery ±3%</b>	99%	100%	100%	100%	99.7%
<b>Inch Delivery ±5%**</b>	99%	97%	96%	96%	96.7%

\* Target is to be within KPI limits 99% of the time

\*\* Low hourly flows at Inch can lead to difficulties meeting this KPI. Low hourly flows are as a result of shipper / producer requirements.

### **(b) Shrinkage**

"Shrinkage Gas" means Own Use Gas and/or Natural Gas required to replace Unaccounted For Gas. Table 1.1.3(b) shows Shrinkage Gas attributed to the RoI system as a percentage of throughputs.

**Table 1.1.3(b)**

KPI	Target	2009	2010	2011	2012
Shrinkage as a % of Throughput	N/A	1.42%	1.41%	1.31%	1.8%*

\* The increase from previous years mostly arose from UAG increasing from -84GWhr in 2011 to +12GWhr in 2012. That is -84GWhr of UAG was "found" on the system for 2011 which when combined with actual fuel usage reduced 2011 shrinkage. Conversely +12GWhr was "lost" from the system in 2012 when combined with actual fuel usage increased 2012 shrinkage.

### **(c) Transmission Meter Read Verification**

Transmission Meter Read Verification gives an indication of the number of transmission connected gas points that require meter reading adjustments as a result of failing meter reading validation<sup>3</sup>. Table 1.1.3(c) below notes that 0.9% of all site-metering validation-checks carried out in 2012 resulted in adjustments. (i.e. approximately 18 site-metering adjustments that were performed out of 1992 validation checks in 2012)

**Table 1.1.3(c)**

KPI	Target – No. of Adjustments	2009 – Actual No. of Adjustments	2010 - Actual No. of Adjustments	2011 - Actual No. of Adjustments	2012 - Actual No. of Adjustments
Metering Data Validation	<2% of sites	1.3%	1.3%	0.9%	0.9%

<sup>3</sup> Adjustments typically arise as a result of

(i) a communications failure – e.g. a site telemetry failure resulting in advances in the site meter not properly communicated to GTMS via SCADA; or

(ii) an issue with the meter correction equipment on site.

### 1.1.4. Unaccounted for Gas (UAG)<sup>4</sup>

“Unaccounted for Gas” means Natural Gas which is lost or otherwise unaccounted for from the Transportation System or any localised part thereof.

**Table 1.1.4**

UAG	Target	%*	Energy
2009	±1%	0.05936%	+33.5 GWh
2010	±1%	0.02779%	+17.6 GWh
2011	±1%	-0.15302%	-83.8 GWh *
2012	±1%	0.02%	+12.4 GWh

This table relates to overall system throughput, i.e. gas transported for RoI, NI and IoM which in Calendar year 2012 amounted to 67,891 GWh.

\* This swing is due to measurement equipment uncertainty (see Part G of Code of Operations). The code states that the % of UAG has to be within +/- 1% of total throughput<sup>5</sup>. It just so happened that 83.8GWhr was “found” in the system in 2011. This is within the tolerance stipulated in the Code of Operations.

### 1.1.5. Carbon Usage / Emissions

This is a measurement of the tonnes of Carbon Emissions produced at each of the compressor stations based on fuel gas consumption.

**Table 1.1.5**

Compression site	2009 (tonnes)	2010 (tonnes)	2011 (tonnes)	2012 (tonnes)*
Midleton	3,073	4,932	8,528	9,707
Beattock	44,917	47,318	41,002	44,012
Brighouse	61,156	71,440	62,619	58,896

This increase in Carbon Emissions is due to the compressors operating for more hours during the year following work that was carried out in 2011 out to increase the operating envelope of the compressor station to facilitate lower flows.

<sup>4</sup> Volume as a percentage of total gas.

<sup>5</sup> Code of Operations Part G, Section 4.2 " Measurement Equipment Uncertainty"

### 1.1.6. Usage of Inventory Product and Storage

The table below outlines the amount of gas kept in storage during each calendar year.

“I/C Inventory Space” relates to the IC2 interconnector with GB.

“Inch” relates to gas that is stored in the depleted Kinsale Gas field.

**Table 1.1.6**

	2009 (GWh)	2010 (GWh)	2011 (GWh)	2012 (GWh)
I/C Inventory Space Utilised	123	42	261	106
Inch Export to Storage	1069	1468	1576	1670

### 1.1.7. Capacity bookings

Exit Capacity is the total amount of capacity booked by shippers on the transmission system.

As of 31/12/12, 190.13 GWh was reserved on the BGN (T&D) system

(Note: This excludes PTL’s booking in Scotland of 89.77 GWh).

#### Breakdown as follows:

Transmission LDM Sites (kWh)	105,207,399
Distribution LDM Sites (kWh)	2,983,552
Aggregate DM Sites (kWh)	4,578,787
Aggregate NDM Supply Points (kWh)	77,361,754

The Moffat and Inch Entry Capacity bookings on 31/12/2012 amounted to 286.73 GWh.

**Table 1.1.7**

Capacity bookings	31/12/2009	31/12/2010	31/12/2011	31/12/2012
Inch	34.82 GWh	33.53 GWh	38.54 GWh	34.00 GWh
Moffat	299.61 GWh	309.04 GWh	278.62 GWh	252.73 GWh
Total	334.43GWh	342.57 GWh	317.16 GWh	286.73 GWh

### 1.1.8. Total number of Transmission Connections (by category) at year end plus % change from previous year

**Table 1.1.8**

Category	31 <sup>st</sup> December 2011	31 <sup>st</sup> December 2012	% change
Transmission LDM	33	31	- 6.060%
Transmission DM	18	19	5.55%



### 1.1.9. Total Length of Pipeline and number of installations on the Transmission System up to December 2012

\* Denair, Rochestown, Gurteen, Portersize, Moanmore, Raheen, Finnerstown, Ories, Gribton, Blockvalve 4, BV1Vallyfield, Blockvalve3, Blockvalve2, Westerparkgate, Moneynierin, Srahyconiguan, Rockfiled, Knockroe, Beagh More.

**Table 1.1.9(a)**

Length of Onshore Pipeline (km)	2005	Decommissioned (km)	25
Length of Offshore Pipeline (km)	412	Decommissioned	0
Total Length of Pipeline (km)	2417	Decommissioned	25

## 1.1.10 Performance Standards

### (a) BGN Transmission Service Standards – Performance 2012

**Table 1.1.10(a)**

Customer Commitments	Performance Target	Actual Performance
<b><u>Maintenance Days</u></b> <sup>6</sup> Unscheduled Maintenance / Interruptions Interruptions due to maintenance	Zero 5	0 0
<b><u>Safety &amp; Quality</u></b> Reportable Safety Incidents	Zero	0
<b><u>Communications &amp; Instrumentation</u></b> GTMS System Availability	99.8%	99.98% ( equates to approx 6 hours downtime in the year)

### (b) System balancing:

A Balancing Action means a Balancing Gas Buy or a Balancing Gas Sell under a Balancing Gas contract in respect of a Day is required.

**Table 1.1.10 (b)**

	Target	2009	2010	2011	2012
<b>System Balancing Actions</b>	48 (12 per Qtr.)	20	37	39	20
<b>Shipper Imbalance as % of total flow*</b>	N/A	0.25%	0.24%	0.14%	0.4%

\* This relates to overall system throughput, i.e. section 1.1.1 that is RoI 2012 Total Gas Transported of 53,541 GWh.

<sup>6</sup> See Code of Operations Part G Section 5.1.3(b)

## 1.2 GPRO

The GPRO is a register of Gas Points that is operated and maintained by BGN on behalf of Gaslink. Table 1.2 sets out the number of Large Daily Metered, Daily Metered, and Non Daily Metered registered Gas Points in 2012 as well as requests to change shipper and provides Historical Consumption.

**Table.1.2**

Category	GasPoints* Registered @ 31 Dec 2012	Total Gas Points Registered during 2012	Total Gas Points De-registered during 2012	Tariff Exempt <sup>7</sup> NDM Supply Points @ 31 Dec 2012	Total Tariff Exempt NDM Supply Points during 2012	Change of Shippers Jan-Dec 2012	Historical Consumption Requests Jan –Dec 2012
<b>LDM</b>	42 SPRNs (75 Streams)	0	N/A	N/A	N/A	6	11
<b>DM</b>	220 SPRNs (227 Streams)	7	N/A	N/A	N/A	42	73
<b>NDM I/C</b>	26,014	746	18	1,334	666	3,819	4,364
<b>NDM Domestic</b>	635,614	5,779	123	5,085	3,961	106,712	N/A
<b>Total</b>	661,890	6,532	141	6,419	4,627	110,579	4,448

\* Transmission and Distribution

\*\* BGN / Gaslink have not received an application to deregister a DM or LDM site in 2012

<sup>7</sup> Tariff Exempt NDM Supply Point if the following validation criteria apply: (a) there is be no End user assigned to the NDM Supply Point for at least the past 1(one) month;  
 (b) a Shipper-Requested Lock has been in place for at least two (2) months;  
 (c) there are no requests by the Registered Shipper for Operational Site works Services at the NDM Supply Point.  
 (d) there has been no consumption at the NDM Supply Point following the Service Lock.

## 1.3 Achievement of Capital Programme

**Table 1.3.1**

Reinforcement	Comment
AGI Capacity Upgrades <sup>(2 number)</sup>	Commissioned
AGI Capacity Upgrades <sup>(1 number)</sup>	Under Construction
AGI Capacity Upgrades <sup>(4 number)</sup>	Design Stage
Brinny AGI Upgrade	Commissioned
Cluden to Brighthouse Bay Pipeline	Design Stage

**Table 1.3.2**

Refurbishment	Comment
Operations Upgrades - Works identified or refurbishment or replacement of obsolete/unreliable system components identified by Operations staff. Multi location projects.	Commissioned
Operation Ugrades 2012 <sup>(4 number)</sup>	Design Stage
Ballough Bypass	Design Stage
Remote Cathodic Protection Measurement -	Commissioned
Cork Area Pipeline Marker Refurbishment	Completed
National Pipeline Marker Upgrade Phase 2	Under Construction
Waterford Replacement Pipeline	Under Construction
East Wall to Coolock Pipeline	Under Construction
Limerick Optimisation	Design Stage
Ballymun Pipeline Interchange Diversion	Design Stage

**Table 1.3.3**

Third Party	Comment
A8 Larne Diversion	Design Stage

**Table 1.3.4**

Interconnectors	Comment
1. Brighthouse Bay Bypass	Commissioned
2. Brighthouse Bay and Beattock Exhaust Stack Replacement	Design Stage

**Table 1.3.5**

New Supply	Comment
Newtownfane to Haynestown (Mullagharlin)	Design Stage*
Compressed Natural Gas (CNG) Facility, Cork	Design Stage
Great Island Power Station	Under Construction
Kilkenny OCGT	Design Stage*
Gas to Glanbia Waterford	Design Stage

\*On hold - Initial works completed on these projects additional client funding and/or statutory approvals required to progress.

## 1.4 Transmission Gas Safety

### 1.4.1 High Level Safety Statistics

#### Introduction

This section of the report is an extract from reports submitted to CER under the natural gas safety regulatory framework (the 'Framework'). All information has been provided to the best ability of BGN at the time of submittal to the CER. The report includes Key Performance Indicator (KPI) measures and statistics that have been under continuous monitoring during 2012. The purpose of the KPI's are to identify opportunities on improvement and to ensure the Network continues to be managed in a safe manner.

#### New Initiatives

Rolled out a new programme for marking of Transmission pipelines;

#### Key Performance Indicators

##### High Level Transmission Safety KPI's

The reference number (ref: 1 – 4) denotes KPI grouping under the Six Key Safety Regulatory Objectives.

**Table 1.4.1**

TRANSMISSION UNDERTAKINGS & KPI's:						
			2010	2011	2012	Notes:
T.1	Pressure Control	% of SCADA system availability	100%	100%	100%	
T.2	Gas Quality (cv , wobbe )	% Availability of the gas measurement equipment	100%	100%	100%	
T.3	Gas Emergency Exercises	Emergency Exercises planned per annum	3	2	2	
		Emergency Exercises undertaken	4	4	5	BGN broadened exercise testing in 2012. 1 NGEP/CMP exercise (May); 2. Contacts

						<p>list for LDM consumers exercise (June);</p> <p>3. Scada system disaster recovery exercise (July);</p> <p>4. NGEP exercise Titan (Sept.);</p> <p>5. Transmission operation response (urban Dublin area). Part of joint TSO / DSO exercise Colt (Sept).</p>
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**Table 1.4.2**

	KPI	Compliance Monitor	Transmission KPI's:			Notes:
			2010	2011	2012	
1A	Public Reported Escapes (Reported Leaks)	Total Reported Escapes	1	4	9	Reporting expanded to include leaks detected by BGN technical staff, BGN contractors as well as members of the public.
1B	Third Party Damage	Development enquiries requiring action	466	869	875	BGN continue high promotion levels of the 'Dial Before You Dig' phone line.
	Third Party Damage Prevention Detected Encroachment Events [United Kingdom Onshore Pipeline Operators' Association Categorisations A, B, C].	Category A - Pipeline Damage or Leak	40	0	1	Pipeline coating damage, resulting from excavation works to repair a water system
		Category B- Serious Potential for Damage		20	19	
		Category C- Limited Potential for Damage		25	22	
		Total detected encroachment		45	42	
1C	Transmission Pipelines	Line breaks (major leakage)	0	0	0	
		Line damaged (sustainable level of leakage)	1	0	1	Leak on Insulation Joint at Goat Island AGI. Item resolved.
		Line damaged (no leakage)	1	0	1	Pipeline coating damage, resulting from excavation works to repair a water system.
2A	Pressure Control	Occasions where pressure drops below minimum design pressure	0	0	0	
		Occasions where pressure is greater than 1.1 x Maximum Operating Pressure	0	0	0	
2B	Gas Outages	No. of Unplanned Outages	0	0	0	

	KPI	Compliance Monitor	Transmission KPI's:			Notes:
			2010	2011	2012	
3A	Gas Quality (C.V., Wobbe)	Number of non compliant events (constituent parts outside criteria)	0	0	0	
4A	Gas Supply Emergencies	Local Gas Supply Emergencies 1,000 - 9,999 customers affected	0	0	0	
		NGEM Emergencies > 10,000 customers affected	0	0	0	
5A	Incidents	Gas Related Incidents	0	0	0	

### Analysis of 2012 Transmission Safety KPI's

Commentary on the high level KPI's is presented under the six key Regulatory Objectives, which support the overall Strategic Objective of the Framework. This is consistent with one of the fundamental principles of the Framework: that gas safety risks must be mitigated to a level that is deemed to be as low as reasonably practical (ALARP).

#### Minimising the Risk of Loss of Containment

The high level KPI's, over the period, demonstrate consistent performance in this area. Of particular note are:

**1A.** There was nine Reported Leaks in 2012. The reported leak increase is due to BGN expanding reporting to include leaks detected by BGN technical staff, BGN contractors in addition to members of the public. Of the nine (9) below leak reports in 2012, four (4) reports were from the public and five were detected by BGN technical field personnel. The leaks reported were as follows:

1. Public Reported Escape, Ballyveelish AGI repair by Transmission call out crew. Pressure Reduction Installation (PRI) flange and compression fitting repairs;
2. Goatsland escape reported by field technical personnel, Insulation Joint root cause;
3. Public Reported Escape, Brinny AGI, report to Distribution. Class 1 Distribution escalated to Transmission, external flange issue resolved;
4. Distribution escalated to Transmission, Ballsbridge AGI - relief valve issue resolved;
5. Public Reported Escape, Little Island AGI gas leak from Boiler house, repaired by BGN technician;
6. Distribution escalation advised of report of smell of gas from Distribution Fitter at Diswellstown AGI. Small pass on the Fuel Gas Skid (25mb)
7. Leak report caused by small leak on a flange at Galvone AGI (19bar) Limerick. Transmission Fitter sent to site and completed repair;



8. Leak reported at Sir John Rogersons Quay, Dublin 1, Transmission crew investigated, isolated and repaired a nipple (19 bar) on the base of the valve;
9. Public Reported Escape at Drumgill AGI, (70 bar) leak sourced to valve riser, riser isolated and leak repaired.

**1B. Third Party Damage** - Targeted Third Party Damage Prevention initiatives, such as promotion of “Dial-Before-You-Dig” in the media and other areas had the following results:

**Table 1.4.3**

	<b>2010</b>	<b>2011</b>	<b>2012</b>
Development Enquiries requiring action	466	869	875
Detected Encroachments	40	45	42

Development works enquiries requiring action are consistent with 2011 figures. BGN maintained the level of promotion of the ‘Dial Before You Dig’ phone line. Detected encroachment numbers have remained at a consistent level since 2010.

Since 2011 BGN has classified Transmission pipeline wayleave encroachments in line with the United Kingdom Onshore Pipeline-operators Association (UKOPA) model – i.e. Category A, Category B and Category C. Category A is the most severe and would include actual damage to a transmission pipeline, wrap or sleeve.

Categories B and C relate to a level of potential damage and are differentiated by the actual activity being carried out in the vicinity of the pipeline. Category B having the greater potential and Category C having limited potential. There was one Category A encroachment in 2012. Below is a table outlining the different types of Transmission encroachments based on the UKOPA model.

**Category A – Pipeline Damage or Leak includes damage to wrap or sleeve**

<b>Number of Encroachments By Third Party</b>	<b>Third Party Type</b>		<b>Number of Encroachments By Activity</b>	<b>Activity Type</b>
1	Local Authority		1	Excavation for water works repair

**Category B – Serious Potential for Damage**

<b>Number of Encroachments By Third Party</b>	<b>Third Party Type</b>		<b>Number of Encroachments By Activity</b>	<b>Activity Type</b>
11	Contractor		7	Drainage installation
5	Landowner		3	Excavation for services
1	Local Authority		1	Circus

1	Circus		1	Excavation for survey
1	Unknown		2	Excavation for repair
			1	Fencing
			2	Installation of a Pole/Structure
			1	Cable Laying
			1	Pipelaying

**Category C – Limited Potential for Damage**

Number of Encroachments By Third Party	Third Party Type	Number of Encroachments By Activity	Activity Type
10	Landowner	2	Excavation for service
6	Contractor	13	Drain cleaning and surface works
2	Local Authority		
2	Roadways	1	Installation of a Pole/Structure
1	Gov Agency	2	Earth Moving
1	Unknown		
		2	Cable laying
		1	Excavation for survey
		1	Road Development

**1C** - Transmission Pipelines - Line breaks remained at zero in 2010, 2011 and again in 2012.

**Maintaining Safe System Operating Pressure**

All KPI's have demonstrated a very high performance with availability of SCADA systems maintained at 100%.

**Minimising the Risk of Injecting Gas of Non-Conforming Quality**

The KPI's demonstrate there were no gas quality (C.V., Wobbe) non-compliant results.

**Providing an Efficient and Coordinated Response to Gas Emergencies**

There were no reportable Transmission gas supply emergencies in 2012.

### **Minimising the Safety Risks Associated with the Utilisation of Gas**

In 2012, there were no reportable safety incidents relating to consumer installations directly connected to the Transmission network.

### **Review of 2010, 2011 and 2012 against Strategic Objective**

In line with the overall **strategic objective** of the Framework, BGN intend to continue:

*To ensure that adequate measures are taken to protect life and property from the dangers associated with natural gas by ensuring that gas related activities within the scope of Bord Gáis Networks' responsibilities are carried out in a safe manner.*

The overall strategic objective of the Framework is the desired safety outcomes of no natural gas related incidents, injuries or fatalities

There was no Natural Gas Reportable Transmission Incident in 2012.

### **Adoption of Natural Gas Safety Regulatory Framework**

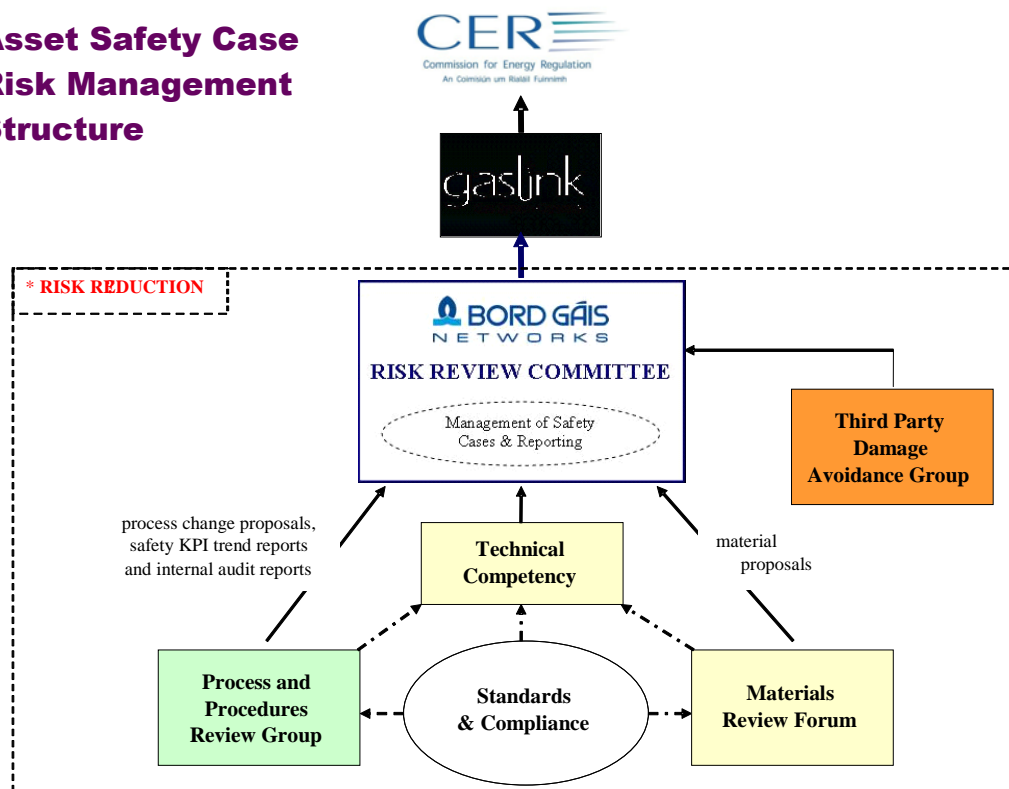
Gaslink and BGN have adopted the Natural Gas Safety Regulatory Framework. The following structure is in place within BGN to manage the Distribution Safety Case requirements.

#### **Risk Management Structure**

BGN operate the Asset/Safety Case Risk Management Structure as illustrated below. The primary objective of this structure is to manage gas safety risks to a level that is deemed to be As Low As Reasonably Practical (ALARP).

Figure 1.4.4

## Asset Safety Case Risk Management Structure



### Asset/ Safety Case Risk Review Committee

The Asset/Safety Case Risk Review Committee consists of Networks cross functions management, and is responsible for the review of findings and proposals from sub-committees.

The primary objectives of the Committee are to report on the safety KPI's, propose Safety Case material and process changes. The Committee also reviews and manages the safety case risk register, identifies new and emerging risks, coordinates cross functional activities ensuring development and maintenance of effective efficient controls and makes recommendations on procedures and processes to reflect business practice and needs. Monthly reports are provided to Senior BGN Management and quarterly reports to Gaslink.

### Risk Review Sub-Committees

The "Standards & Compliance" group consists of Bord Gáis Networks representatives on International Standards Organisation (ISO)/Central European Norms (CEN) /Marcogaz/National Standards Authority of Ireland (NSAI) technical gas committees. The primary function of this group is

- to monitor developments of gas technical standards and legislation)
- to ensure compliance of Bord Gáis Networks processes and procedures, and BGN materials selection and procurement with the relevant standards and legislative requirements.

All subcommittees are common to Transmission and Distribution except the “Materials Review Forum” which review materials, tooling and equipment relating to the specific transmission or distribution network.

### **Update on Safety Case**

Gaslink's safety case was submitted to the CER and approved in June 2009. Within the safety case framework a quarterly KPI report is submitted to CER for review. The primary objectives of the Safety Case document are:

- the safe control and operation of the transmission network;
- to ensure that BGN adequately manages the life cycle of its assets;
- to set out the emergency response and activation of the National Gas Emergency Manager (NGEM);
- that adequate communication systems, staff and risk management practices are in place.
- Provides information to demonstrate that BGN works with all other bodies that have safety duties and ensures arrangements are in place for dealing with gas escapes and investigations into incidents.

During 2012 submissions were made to the CER with respect to the Networks Service and Works Contract (NSWC), Leak Survey Policy and Standby Panel Arrangements. A revised safety case, taking account of changes related to the Networks Services Works Contract was also submitted to the CER.

During 2012, the CER were notified of changes to the Natural Gas Emergency Manager (NGEM) panel.

### **Update on National Gas Emergency Manager Activities**

Pursuant to SI 697 Section 19B of 2007 the CER appointed Gaslink as the National Gas Emergency Manager and approved the Natural Gas Emergency Plan submitted by Gaslink to the CER in November 2008. The NGEP was rolled out and published on the Gaslink website in Q2 2009.

### **Compliance with Transmission System Standards**

#### ***Transmission System Standards***

Safety is inherent in all design standards. Every effort is made by BGN and Gaslink to design the Transmission system in a safe manner and to a high standard.

This commitment is reflected in Gaslink's "Transmission System Standards" document (as approved by CER). The Transmission System Standards covers without limitation, the engineering of pipelines and associated equipment and the technical standards to be adopted for the design, construction, operation and maintenance, including standards relating to the physical durability of the transmission system (including its ability to withstand internal and external pressures, shocks and damage, whether natural or man made) and standards relating to the odourisation of natural gas.

#### ***General statement of compliance***

Gaslink are compliant with the standards set out in the Transmission System Standards document, [subject to any exceptions noted in this Compliance Statement.]

#### **Compliance with Licence Conditions**

Both Gaslink and BGN have system operator and system owner licences respectively. Both organisations maintain a log in which reported compliance breaches are noted, investigated and reported. There were no material breaches of the Transmission Asset Owner Licence Conditions or the Transmission Operator Licences during 2012.

**Other improvements/initiatives during the year**

**Code Modifications**

The following Code Modification Proposals were addressed during 2012:

**Table 1.4.5**

Total Number of New Proposals in 2012	Total Number of Outstanding Proposals in 2012 (from 2011)	Total Number of Proposals Approved	Total Number of Proposals Approved & Implemented	Total Number of Proposals Rejected	Total Number of Proposals 'on hold'
<b>6</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>2</b>

The following Code Modifications were approved and implemented during 2012:

A049'Reclassification of LDM Offtake Points'

A050 'Introduction of South-North Connected System Entry Point': Physical Forward Flow'

A051 'Virtual Reverse Flow at the South-North Connected System Point':

## Section 2: Distribution System

### 2.1 Customer Service (Performance against Customer Charter)

As service provider to Gaslink, BGN connects all natural gas customers to the network and is responsible for carrying out related work at customer premises. The services provided include: safety and emergency response, pipeline service laying and modification, and meter installations/alterations. Every effort is made to provide services in a prompt, efficient, and safe manner and to a high standard. BGN continuously seeks to improve the levels of service that it provides. The BGN Customer Charter <sup>8</sup> provides assurances to customers regarding the standards to which these services are provided. In certain circumstances, BGN will provide compensation for failing to meet these standards, where the customer makes a claim.

**Table 2.1.1**

Bord Gáis Networks Customer Charter Service Standards - Performance 2012						
Section	Customer Commitments	Total Occurance	% Achieved	PPL Standard	No. Of Claims	Compensation Paid
<b>2.1.2.1</b>	<b>Call Handling</b>					
	Calls Answered <20 secs	308,590	93.31%	80%		
	Calls Abandoned	45,149	0.93%	7%		
	Mystery Shopper Calls	978	96.00%	n/a		
	Call Follow-up Surveys	1,005	98.00%	n/a		
<b>2.1.2.2</b>	<b>Quotation Issuing</b>					
	Quotations Issued <7 w/days	3,778	100.00%	100%		
<b>2.1.2.3</b>	<b>Complaint Resolution</b>					
	10 w/days	1,778	97.40%	85%		
	30 w/days	288	98.56%	85%		
<b>2.1.2.4</b>	<b>Payment Guarantee</b>					
	Compensations/Refunds Paid	47	100.00%	100%		
<b>2.1.3.1</b>	<b>Appointment Granting</b>					
	< 5 w/days	86,679	99.98%	100%		
	< 20 w/days	3,265	99.69%	100%		
<b>2.1.3.2</b>	<b>Appointment Kept</b>					
	Metering as promised	86,748	98.66%	100%	34	€1,420
	Services as promised	3,060	97.48%	100%		
<b>2.1.3.3/4</b>	<b>Reinstatement</b>					
	Temporary <1 w/day	8,118	98.38%	100%	2	€70
	Permanent <20 w/day	9,686	96.61%	100%		
<b>2.1.4.2</b>	<b>Supply Restoration</b>					
	Gas on <24 hr	14,226	99.64%	100%	11	€1,997
<b>2.1.4.1</b>	<b>Emergency Reponse</b>					
	Attend Site <1 hr	18,123	99.87%	97%		

**Table 2.1.1**

<sup>8</sup> <http://www.bordgaisnetworks.ie/en-IE/About-Us/Our-business/Customer-charter--codes-of-conduct/Customer-Charter-HTML-version/>



### **2.1.1 Customer Service – Performance on Charter Commitments**

BGN's performance across a range of customer service perspectives is measured relative to BGN Customer Charter standards and Planned Performance Levels (PPL's) agreed with the CER and published in March 2007. An updated version of the BGN Customer Charter document was published in 2012 but the commitments remained as originally agreed.

### **2.1.2 Administrative Standards**

#### **2.1.2.1 Call Handling**

There were a total of 375k calls offered in 2012. 330k of these calls were answered, and 93.3% of calls answered were done so within 20 seconds representing 308k calls. This was well within the standard of 80% minimum answering within 20 seconds.

A total of 45,149 calls were abandoned which was 12% of calls offered. Only 3,476 representing 0.9% were abandoned after the welcome message or after 10 seconds. This performance was well within the standard of 7% abandoned. The welcome message is provided in the first 20 seconds so the timing of the call answered starts when the customer connects to BGN and not after they listen to the message and pick an option. Of the 330k calls that were answered in total, 93.3% were answered within 20 seconds.

#### **2.1.2.2 Quotation Issuing**

2012 quotation performance remained highly compliant at 100% issued within 7 work days. The average turnaround was 1 day for domestic quotes and 2 days for I/C quotes. Overall there was no quotations issued outside the standard, compared to 8 of 4,779 in 2011.

#### **2.1.2.3 Complaint Resolution**

Complaints registered in 2012 were down 28% on the volume registered in 2011 with a total of 2,068 created. Resolution compliance still remained high at 97.6% compared to the Planned Performance Level @ 85% minimum. 2,066 complaints were closed-out during 2012, with 49 complaints resolved beyond the target date.

The nature and relative frequency of complaint types is registered below: \*\*\*

**Table 2.1.2**

Complaint Type	No. Of	
	Complaints	% of Overall
Meter Related	689	33%
Appointment/service	346	17%
Site Management	249	12%
Damage to Property	174	8%
Reinstatement	91	4%
Technical	92	4%
Gas Supply	109	5%
Service Quality	66	3%
Charging	81	4%
Connections	68	3%
Gaswork	45	2%
Misc (System)	28	1%
Notice of Works	28	1%
<b>Grand Total</b>	<b>2066</b>	<b>100%</b>

\*\*\*

**Site Management** – Inconvenience to the customer caused by a site currently being in or left in poor condition such as blocked access.

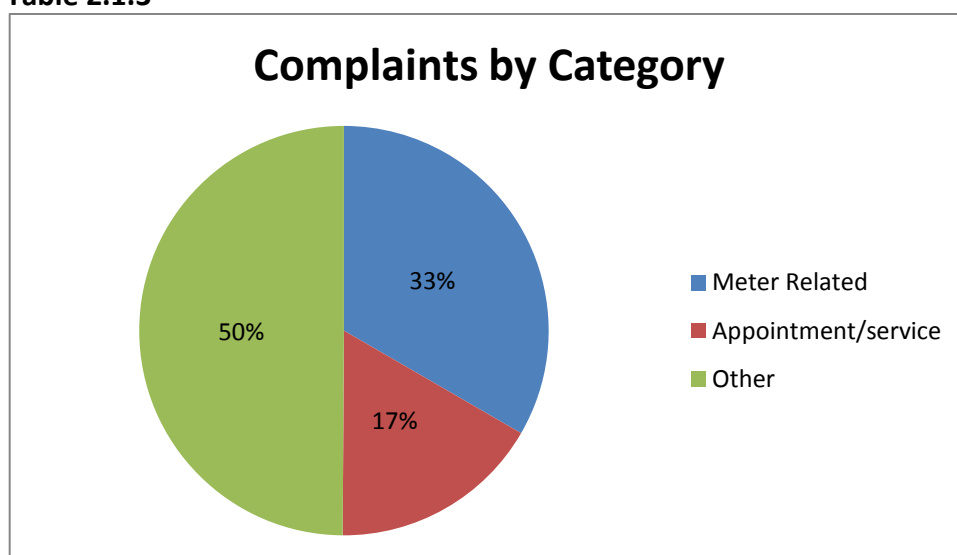
**Gas Supply** - Disruption to customer’s gas supply in the form of bad pressure or a delay in restoration.

**Gaswork** – customer dissatisfied with quality and finish of pipework after BGN works

**Misc (system)** – Lack of information due to the system not being updated in a timely fashion.

**Safety/Technical** – dissatisfied with a technical matter or an issue related to safety following BGN works or response

**Table 2.1.3**



#### 2.1.2.4 Payment Guarantee

This section relates to additional payments made if the original payment was not within 10 working days. Charter compensations for 2012 totalled 47 approved/paid (of 47 claimed, 1 rejected) for an aggregate payout of €3,487. Of the 47 compensation payments made 34 related to broken appointments, 11 to supply restoration delays and 2 to reinstatements. As all payments were made inside the 10 day criteria, there were no compensation payments made in relation to this standard.

**Table 2.1.4**

Compensation Claims		
	2012	2011
Paid	47	67
Rejected	1	2
> 10 Working Days	0	0

Payment Category		
	2012	2011
Supply Restoration	11	16
Broken Appointment	34	50
Appointment Granting	0	1
Reinstatements	2	0
Total	47	67

#### 2.1.3 Service Delivery Standards

##### 2.1.3.1 Appointment Granting

Appointment requests in 2012 were again higher than 2011 (meter appointment requests totalled 86,679 up 7% and service appointment requests totalled 3,275 down 48%). Compliance with service standards was 99.8% for 2012. Throughout the year, 10 service appointments were granted outside the 20 day standard, there were 17 meter appointments granted outside criteria in 2012. Appointment requests in 2012 were again higher than 2011 (meter appointment requests totalled 86,679 up 7%). This was mainly due to our meter replacement programme plus additional programmes that went through our appointment processes. Service appointment requests totalled 3,275 down on 2011 figures, mainly due to the ongoing downturn in our economy. Compliance with service standards was 99.8% for 2012.

##### 2.1.3.2 Appointments Kept

2012 performance achieved 98.1% compared to 97.5% in 2011. In 2012 1,176, of 87,924 metering appointments, and only 79 of 3,139 service lay appointments, were not delivered as booked. Even with the increase in appointments requested during 2012 by 7% compared to 2011, BGN managed to achieve a higher percentage compliance by over half a percentage point. The completed roll out of Hand Held technology in 2012 has contributed to on time monitoring of status transactions to ensure resources are available and on site during the allotted appointment window resulting in a higher percentage compliance.

### **2.1.3.3 Temporary Reinstatement<sup>9</sup>**

Performance in 2012 was highly compliant with 98.4% of over 8,118 temporary reinstatements conducted within the 24hr standard. Temporary Reinstatement may be completed outside criteria due to weather conditions such as heavy rain which may cause the cutting to be flooded or the contractor may have access problems (gates, cars in the way).

### **2.1.3.4 Permanent Reinstatement**

96.6% of almost 9,686 permanent reinstatement activities during 2012 were performed within the 20 working day planned performance level. Delays in permanent reinstatement can occur for a number of reasons. There may be a delay in obtaining a licence for the work or some permanent reinstatement jobs could be grouped in order to maximise the use of certain materials (e.g. asphalt). There has been a 4% increase in compliance since 2011.

## **2.1.4 Gas Supply Standards**

### **2.1.4.1 Emergency Response**

Bord Gais Networks has a statutory responsibility to respond to smells of gas reported by members of the public, across the network. These public reported escapes (PREs) occurred 18,147 times per annum and have a one hour response criteria. Only 24 of 18,147 responses in 2012 were outside the 1 hr maximum standard for 99.9% compliant performance. The average response time across all responses was 27 minutes. 4,660 of these escapes were internal, 2,605 external and 10,882 were no traces.

### **2.1.4.2 Interruption Notification and Supply Restoration**

The target set out in BGN's Customer Charter approved by the CER is to restore gas supply by midnight of the following day in the event of an unplanned interruption. Of the 14,278 loss of gas supply incidents (i.e. unplanned interruptions), only 52 were restored outside the 24 hour criteria, making the YTD performance 99.6% for 2012. These loss of gas supply incidents are referred to as "no gas" responses. The vast majority or 74% of loss of gas supply incidents related to prepaid meters. The percentage of loss of gas supply for prepayment meters has always been historically higher than credit meters because of the required customer interaction and additional technology associated with the meter. Now as the population of these meter types grows the increase in loss of gas supply incidents is to be expected. The high percentage of loss of gas supply associated with prepayment meters are as a result of a number of different reasons including tamper faults, card errors, downstream problems on single appliance situations i.e. boiler resets, boiler issues, battery issues, letting credit run out causing the boiler to lock out and meter faults.

---

<sup>9</sup>Once a gas service has been installed in an excavation reinstatement of the ground takes three stages: 1. Back filling, 2. Temporary reinstatement (within 24 hours) 3. Permanent reinstatement (within 20 working days). Once the excavation is back filled, it is temporarily reinstated with tarmac to make safe. The purpose of temporarily reinstating the ground is to allow time for the backfill in the excavation to settle so there is a lower chance of the reinstatement sinking in the future. Permanent reinstatement is then carried out in the original material of the site e.g. concrete, cobble lock, etc, (within 20 working days).

## 2.2 Distribution System Data

### 2.2.1 Annual total, annual daily average and peak day flows and comparison to previous year

Table 2.2.1, outlines Distribution (DX), Daily Metered (DM), Non Daily Metered (NDM) Natural Gas flows, for both Industrial and Commercial (I/C) and Residential (RES) market sectors.

**Table 2.2.1**

<b>Dx<sup>10</sup> DM I/C</b>		<b>2011</b>	<b>2012</b>	<b>% Change</b>
Annual Total	MWh	2,997,560	3,312,979	11%
Annual Daily Average	MWh	8,212	9,052	10%
Peak Day Flow	MWh	12,149	12,668	4%
<b>Dx NDM I/C</b>				
Annual Total	MWh	3,716,728	3,990,528	7%
Annual Daily Average	MWh	10,183	10,903	7%
Peak Day Flow	MWh			
<b>Dx NDM RES</b>				
Annual Total	MWh	7,341,417	7,744,001	5%
Annual Daily Average	MWh	20,113	21,158	5%
Peak Day Flow	MWh			
<b>Dx NDM Total</b>				
Annual Total	MWh	11,058,146	11,734,529	6%
Annual Daily Average	MWh	30,296	32,062	6%
Peak Day Flow	MWh	74,481	71,705	-4%
<b>Dx Total</b>				
Annual Total	MWh	14,055,705	15,047,508	7%
Annual Daily Average	MWh	38,509	41,113	7%
Peak Day Flow	MWh	85,525	84,373	-1%

### 2.2.2 Shrinkage

Shrinkage Gas means Own Use Gas and/or Natural Gas required to replace Unaccounted For Gas.

Shrinkage as a % of total distribution throughput in 2012 = 0.94% (compared to 1.0% in 2011)

### 2.2.3 Total number of Distribution Connections (by category) at year end plus % change from previous year.

**Table 2.2.2**

<b>Connections</b>	<b>2011</b>	<b>2012</b>	<b>% Change</b>
Dx DM I/C - Connects	210	212	0.95%
Dx NDM I/C - Connects	23,694	23977	1.19%
Dx NDM RES - Connects	622,563	626785	0.68%
Dx Total - Connects	646,467	650,974	0.70%

<sup>10</sup> Distribution Network

## 2.3 Total length of pipe in distribution system

Distribution Network Lengths - Systems Lengths at end 2012\* (Material)

The distribution network operates in two tiers; a medium pressure and a low pressure. The lower pressure network is polyethylene distribution pipelines.

**Table 2.3.1**

	PE 2012	PE 2011	Other 2012*	Other 2011*	Totals 2012	Totals 2011
<b>Eastern Region (incl. Carlow &amp; Kilkenny)</b>						
Total Length (km)	<b>7772</b>	7700	<b>66**</b>	91	<b>7838**</b>	7791
<b>Cork</b>						
Total Length (km)	<b>1612</b>	1586	<b>8</b>	8	<b>1620</b>	1594
<b>Limerick &amp; S.E.</b>						
Total Length (km)	<b>1270</b>	1252	<b>8</b>	8	<b>1278</b>	1260
<b>Galway &amp; West</b>						
Total Length (km)	<b>394</b>	384	<b>1</b>	1	<b>395</b>	385
<b>Total</b>					<b>11,131 km</b>	

Key PE = Polyethylene

\*Other materials are Steel, Ductile Iron, Wrought Iron, Cast Iron and Gun Barrel.

\*\* Includes 5km of Light wall Steel Pipe De-Rated as part of Dublin 4 project.

## 2.4 Achievement of Capital Programme

### 2.4.1 Cast iron mains replacement progress

From 2004 to 2009, a total of 1,233km of old metallic mains have now been replaced, 95% of which were in the Greater Dublin Area and 5% in Cork. The programme included the renewal of approximately 49,000 old metallic services and the transfer of 34,000 existing PE services. In addition, approximately 65,000 internal inspections were conducted during the course of the programme to assure that it was safe to reintroduce gas.

Subsequent to the "Cast Iron Replacement Project", a desktop study was completed in June 2012 to determine the scope for the residual siteworks which is scheduled for completion in May 2013.

## 2.5 New connections during year (by category)

Table 2.5.1

Meters	2011	2012
One off residential	5,983	4,441
New Housing	1,097*	1,288
Industrial / Commercial	926	719

\* New housing connection records do not currently differentiate between houses and apartments.

Table 2.5.2

Capital Programme	Total 2011 Actual	Total 2012 Actual	Total 2012 Allowance	% Achieved
Total Services (nos)	5,613	4,004	5,549	72%
Total New Mains kms	19	33	43	76%
Total Mains Renewed	6	4	5	80%

72% represents the actual service connections versus those projected as part of the CER's PC3 revenue review. The difference is reflective of the changing ratio of percentage of new connection requiring new services due to meter banks, pre existing service pipes etc

BGN laid 24% less main than was provided in the 2012 allowance. This is reflective of the lower services numbers .

## 2.6 Update on new towns receiving gas

BGN has carried out numerous feasibility studies on various towns to assess the economic viability of connecting the selected towns to the Distribution Network. These studies are carried out in line with a BGN Connection Policy<sup>11</sup> approved by the CER in April 2006 and revised in 2011. At present BGN has three phases on the New Towns projects as follows:

- (i) New Towns Phase I: Mayo-Galway
- (ii) New Towns Phase II: Mayo, Galway, Tipperary and Kildare
- (iii) New Towns Phase III: Cork, Tipperary and Meath

The following is a brief update on each Phase.

### 2.6.1 New Towns Phase I

Eligible towns from New Towns Phase I with a proven anchor load have been completed with the exception of Tuam. The connection to Tuam awaits confirmation of connection to an anchor load.

### 2.6.2 New Towns Phase II

Eligible towns from New Towns Phase II with a proven anchor load have been completed.

### 2.6.3 New Towns Phase III

- Construction completed in 2011 on Kinsale, Kells, Tipperary Town.

<sup>11</sup> [http://www.bordgaisnetworks.ie/Global/Documents/Connections%20Policy%20\(Revision2,%20February-2011\).pdf](http://www.bordgaisnetworks.ie/Global/Documents/Connections%20Policy%20(Revision2,%20February-2011).pdf)

- Macroom: Anchor load connected in 2011 – extension to town scheduled for completion in January 2013.
- Cootehill: Construction to commence in February 2013.
- Wexford: Initial CER approval received in December 2012 subject to confirmation of intention to connect from the associated anchor loads.

#### **2.6.4 2012 Reinforcement Performance Review**

All of the planned reinforcements for 2012 were completed on by year end per the list below:

1. Haven View Upgrade
2. Park Drive
3. Castledawson Avenue
4. Springhill Avenue
5. Beechwalk Reinforcement
6. Merops Replacement DRI
7. Athy Road Reinforcement
8. Blackrock AGI Link
9. LIT Limerick Phase 2
10. Clontarf Road Reinforcement
11. Hampstead Avenue
12. Clanmoyle Road
13. Brinny Reinforcement
14. Park Drive

Design work has concluded on the following projects which are scheduled for construction in 2013:

1. Castledawson Avenue
2. Woodview Cottages
3. Springhill Avenue
4. Thornhill Road Reinforcement
5. O' Curry St DRI

## ***2.7 Distribution Gas Safety***

### **2.7.1 Introduction**

All information has been provided to the best ability of BGN at the time of submittal to the CER. The report includes Key Performance Indicator (KPI) measures and statistics that have been under continuous monitoring and improvement during the reported period of 2012. Safety performance is a key priority for both Gaslink and BGN.

### **2.7.2 New Initiatives**

During 2012, BGN

- provided network mapping data exchange agreements to utilities, contractors and local authorities incorporating Geographical Information System (GIS) data to a total of ten new third parties;



- issued correspondence, guidance and calendar to landowners advising them of actions to be taken on their land prior to carrying out any civil works;
- designed and aired a new TV and radio 'Gas Escapes Advert';
- marketed with a new campaign for 'Carbon Monoxide (CO) Awareness Week'; and
- delivered Carbon Monoxide (CO) alarm training to Registered Gas Installers (RGI).

## 2.7.3 Key Performance Indicators

### High Level Distribution Safety KPI's

The reference number (ref: 1 - 6) denotes KPI grouping under the Six Key Safety Regulatory Objectives. Consult section 3.2 for detailed analysis.

**Table 2.7.1**

DISTRIBUTION UNDERTAKINGS			2010	2011	2012	Notes:
d.1	Replacement Mains					
d.1.1		Remaining Cast Iron mains to be replaced in the "Cast Iron Replacement Project"	1 km		*	* 'Cast Iron Replacement Project' complete. Project as-laid data verification and G.I.S records update ongoing. Residual metallic mains replaced on discovery. A total of 1370 metres replaced in 19 locations.
d.1.2		Cast Iron Services that were replaced as part of the "Cast Iron Replacement Project"	1 km		*	* 'Cast Iron Replacement Project' complete. Project as-laid data verification and G.I.S records update ongoing. Residual metallic mains replaced on discovery. A total of 1370 metres replaced in 19 locations.
d.2	Gas Emergency Exercises	Emergency exercises Undertaken	1	2	3	

Ref	Subject	High Level KPI	Distribution:			Notes:
			2010	2011	2012	
1A	Public Reported Escapes	No. of External Leaks Detected	3668	3091	2605	
		No. of Internal Leaks Detected	3906	4693	4660	
1B	Third Party Damage	No. of Main Damages	62	89	48	
		No. of Service Damages	461	482	404	
1C	Gas in Buildings	Number of 'Gas in Buildings' events (i.e. all gas ingress from external infrastructure)	0	2	2	1.Riverdale, Leixlip; 2. Green Isle Hotel Boot Road (Third Party Damage).
1D	Evacuati ons	No. of BGN initiated evacuations	3	2	0	
2A	Gas Outages	Number of unplanned outages in the following categories:				
		> 15 Customer affected	5	1	1	The Kiln, Portmarnock (85 customers affected). Leak located on inlet to District Regulating Installation. Leak repaired and relight affected.
		> 100 Customer affected	0	0	1	Third Party Damage to 8" steel main in Mulhuddart.
		> 250 Customer affected	0	0	0	
3A	Gas Supply Emergenci es	Local Gas Supply Emergencies 1,000 – 9,999 customers affected	0	0	0	Regulatory requirement of 97% outperformed to 99.90% level.
		NGEM Emergencies - >10,000 customers affected	0	0	0	

Ref	Subject	High Level KPI	Distribution:			Notes:
			2010	2011	2012	
3B	Public Reported Escapes	% attended within one hour	99.01	99.86	99.90	
4A	Incidents	Reportable under Gas Legislation	3	0	1	Riverdale Leixlip (two injuries).
	Incidents	Reportable under CER Guidelines		3	2	1. Kent Train Station, Third Party Damage downstream of meter - evacuation by management and fire brigade. 2. Third Party Damage to 8" steel main in Mulhuddart leading to 157 properties being without gas. Report issued to the CER.
	Customer installations.	Number of Gas related incidents attended by BGN and Non Gas Related) Fire Explosion Carbon Monoxide		1	0	
	Non Gas related incidents	Number of Non Gas related incidents attended by BGN		2	1	Wilton Hall Wicklow (non-natural gas related, root cause identified as aerosol canister).
5A	Emergency Reports	No. of emergency calls received via the 24-hour emergency telephone number (1800 20 50 50 )	19,663	19569	18147	
5B	Carbon Monoxide Helpline	No. of CO-related calls received via the 'Carbon Monoxide Helpline (1800 79 79 79)	1847	2298	1845	

Ref	Subject	High Level KPI	Distribution:			Notes:
			2010	2011	2012	
5C	Third Party Damage	Total enquiries to 1800 427 747 (inward communication)		1511	3442	Greater awareness of the Dial Before You Dig phone line due to delivery of presentations to Local Authority and Utilities companies. BGN continue high promotion level of 'Dial Before You Dig' phone line.
		Total enquiries to distributionDBYD@bge.ie/post/fax/calls (inward communication)		4876	4533	
		Total inward enquiries	Total 6544	Total 6,387	Total 7975	

### **Summary of 2012 Distribution Safety KPI's:**

Commentary on the high level KPI's is presented under the six key Regulatory Objectives, which support the overall Strategic Objective of the Framework. This is consistent with one of the fundamental principles of the Framework: that gas safety risks must be mitigated by the undertaking to a level that is deemed to be as low as reasonably practical (ALARP).

### **Minimising the Risk of Loss of Containment**

The majority of high level KPI's, over the period reported demonstrates considerable improvement in most areas. Please note commentary below against annual trends:

#### 1. a. - Public Reported Escapes

The number of internal escapes in 2012 was 4660 down 33 from 2011 (4693) and up 754 from 2010 (3906).

The number of external escapes in 2012 was 2605 down 486 from 2011 (3091) and down 1063 on 2010 (3668).

1. b. - Third Party Damage – No. of Damages in 2012 was 452 events (down 119 from 2011 and down 71 from 2010);

1. c. – Gas in Buildings – No. of Events in 2012 was 2 (up 2 from 2010 and equal to 2011).

### ***Maintaining Safe System Operating Pressure***

The high level KPI's demonstrate considerable improvement over the period reported. Of particular note is:

2. a. - Gas Outages – No. of unplanned outages 2 up by 1 event from 2011 down by 3 events on 2010 figures.

Gas in building events, one incident in Riversdale Leixlip and one incident in Green Isle Hotel, Boot Road

### ***Minimising the Risk of Injecting Gas of Non-Conforming Quality***

There were no non compliant events reported:

### ***Providing an Efficient and Coordinated Response to Gas Emergencies***

The high level KPI's demonstrate consistent high performance and increased improvement over the period reported. Of particular note is:

3. a. - Gas Supply Emergencies (instances where greater than or equal to 10,000 customers have gone without gas or have interruption) – No. of gas supply emergencies (Zero for 2010, 2011 and 2012);

3. b. - Public Reported Escapes - % attended within one hour for 2012 was retained above 99% See section 3B.

### ***Minimising the Safety Risks Associated with the Utilisation of Gas***

The high level KPI's demonstrate a considerable improvement on 2011 figures in most areas. Of particular note are:

4. a. - Reportable Incidents,

Reportable Under Legislations:  
One incident reported under legislation.

a. Riverdale Leixlip two injuries. Detailed report provided to CER.

Reportable Under Guidelines:  
Two incidents reported under CER guidelines.

- a. Kent Train Station, Third Party Damage downstream of meter - evacuation by management and fire brigade.
- b. Third Party Damage to 8" steel main in Mulhuddart leading to 157 properties being without gas.

Customer Installations:

No incidents reported under customer installation.

Non Gas related incidents:

- a. Wilton Hall Wicklow (non-natural gas related, root cause identified as aerosol canister).

4. b. – Zero natural gas related Carbon Monoxide incidents in 2010, 2011, and 2012.

### ***Promoting Public Awareness of Gas Safety***

The high level KPI's demonstrate considerable an improvement on 2011 figures in most areas. Of particular note are:

5. a. Emergency Calls Received – down 7% from to 2011. New 'Gas Escapes Advert' completed and aired on TV and radio in late 2012.

5. b. Carbon Monoxide Reports –

BGN are maintaining advertising campaign to ensure continuing awareness. Other initiatives included Carbon Monoxide awareness week in September 2012 and a new Carbon Monoxide Alarms promotion with members of the RGII.

6. c No. of incoming enquiries received for "Dial-Before-You-Dig" is up from 6387 (2011) to 7975 (2012), this is due to the continue Media and public awareness campaigns.

### **Review of, 2010, 2011 and 2012 against Strategic Objective**

In line with the overall **strategic objective** of the Framework, BGN intend to continue:

*To ensure that adequate measures are taken to protect life and property from the dangers associated with natural gas by ensuring that gas related activities within the scope of Bord Gáis Networks' responsibilities are carried out in a safe manner.*

Achieving the overall strategic objective of the Framework is the desired safety outcomes of no natural gas related incidents, injuries or fatalities.

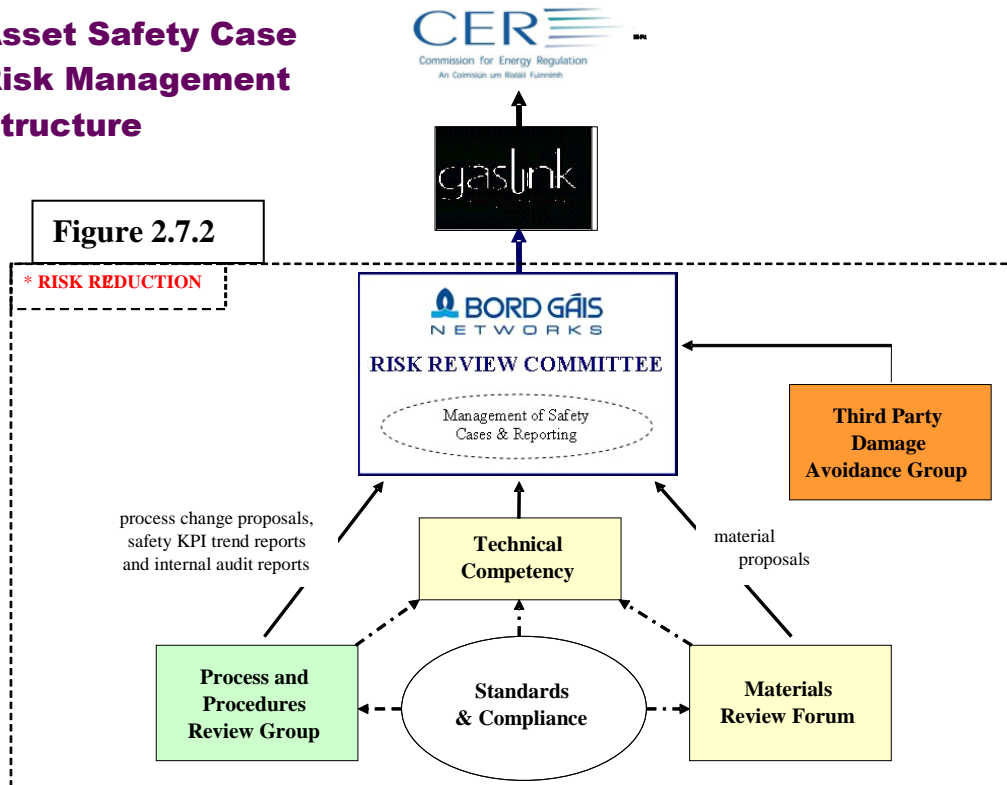
### **2.7.4 Adoption of Natural Gas Safety Regulatory Framework**

Gaslink and BGN have adopted the Natural Gas Safety Regulatory Framework. The following structure is in place within BGN to manage the Distribution Safety Case requirements.

## Risk Management Structure

BGN operate the Asset/Safety Case Risk Management Structure as illustrated below. The primary objective of this structure is to manage gas safety risks to a level that is deemed to be as low as reasonably practical (ALARP).

### Asset Safety Case Risk Management Structure



### **Risk Review Committee**

The Asset/Safety Case Risk Review Committee (A/SC.R.R.C.) consists of Networks cross functions management, and is responsible for the review of findings and proposals from sub-committees.

The primary objectives of Committee (A/SC.R.R.C.) is to report on the safety KPI's and propose Safety Case material and process changes. The Committee also reviews and manages the safety case risk register, identifies new and emerging risks, coordinates cross functional activities ensuring development and maintenance of effective efficient controls and makes recommendations on procedures and processes to reflect business practice and needs. Monthly reports are provided to Senior BGN Management and quarterly reports to Gaslink.

### ***Risk Review Sub-Committees***

The “Standards & Compliance” group will consist of Bord Gáis Networks representatives on ISO/CEN/Marcogaz/NSAI technical gas committees. The primary function of this group is to monitor developments of gas technical standards and legislation to ensure compliance of Bord Gáis Networks processes and procedures, and BGN materials selection and procurement with the relevant standards and legislative requirements.

All subcommittees are common to Transmission and Distribution except the “Materials Review Forum” which review materials, tooling and equipment relating to the specific transmission or distribution network.



## **2.7.5 Compliance with Codes of Practice**

### **Codes of Practice**

Every effort is made by BGN and Gaslink to provide services in a prompt, efficient and safe manner and to a high standard. This commitment is reflected in BGN's Customer Charter and four Codes of Practice.

The BGN Customer Charter benchmarks the performance standards that BGN strives to achieve and provides assurance to customers of BGN's commitment to these standards. The four Codes of Practice outline the procedures and processes BGN adheres to in each of the relevant areas.

The BGN Customer Charter and Codes of Practice can be found on the BGN website<sup>12</sup> and are as follows:

- Customer Charter
- Vulnerable Customer guide
- Complaints Handling Code of Practice
- Disconnection Code of Practice

In accordance with the Transmission & Distribution System Owner / Operator Licences, (Compliance Officer Condition), the Compliance Officer produces an annual report as to its compliance during the relevant year.

Compliance training was rolled out to all Networks Employees.

### **General statement of compliance**

Gaslink and BGN provide services in a prompt, efficient and safe manner and to a high standard, in accordance with the arrangements set out in the BGN Customer Charter and in line with the principles set out in the Codes of Practice.

General levels of performance compliance (performance relative to published Planned Performance Levels or Service Standards) for 2012 are as outlined in the statistics on pages 22 to 26 of this document.

Non-compliances of a procedural nature relating to the conduct of activities covered by the charter & codes listed are added as they arise, to the Regulatory & Compliance general register of non-compliances, maintained by Bord Gais Networks.

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<sup>12</sup> <http://www.bordgaisnetworks.ie/en-IE/About-Us/Our-business/Customer-charter--codes-of-conduct/>

### **Vulnerable Customer guide.**

A vulnerable customer is a person who is particularly vulnerable to disconnection during winter months for reasons of advanced age or physical, sensory, intellectual or mental health. (S.I. No. 463 2011)

BGN has implemented a Special Services Register (for customers who are listed as vulnerable). As of the 31<sup>st</sup> of December 2012, there were 7,458 vulnerable customers registered on the Special Services Register.

**Table 2.7.3**

<b>Number of vulnerable customers 31<sup>st</sup> December 2012</b>		
<b>Type</b>	<b>Description</b>	<b>Total Customers</b>
1	Visually Impaired	148
2	Mobility Impaired	475
3	Hearing Impaired	261
4	Elderly	6,574
	Total Types	7,458

### **Complaints Handling Code of Practice**

BGN has implemented a Complaints Handling Procedure. A report on the complaints received and compensation paid as a result of the introduction of this Code are outlined in section 2.1.2.4.

### **Disconnection Code of Practice**

The disconnection of gas supply at an End User's premises may be required under a range of circumstances. Because of the inconvenience caused to end users by disconnection a set of practices is set down and followed to ensure that the reason for disconnection is validated, appropriately communicated to the End User and carried out in the correct manner.

**Table 2.7.4**

<b>Disconnection of gas supply</b>	<b>2010 Actual</b>	<b>2011 Actual</b>	<b>2012 Actual</b>
Total number of Lock Requests Dispatched	9214	9538	15570
Total number of Locks failed *	4295	5323	7988
Total number of Successful Locks	4912	4215	6851

2012 saw an increase of 38% in lock requests dispatched reflecting current economic climate. The number of lock failures remained proportionally the same at 44% based on difficulty accessing premises to lock.

\* A lock may fail for a number of reasons e.g. No access to meter - nobody at home, access denied etc. in 2012, 731 Lock Requests were dispatched but cancelled late by the supplier and therefore were unsuccessful.

## **2.7.6 Compliance with Licence Conditions**

Both Gaslink and BGN have system operator and system owner licences respectively. Both organisations maintain a log in which reported breaches of compliance are noted, investigated and reported on. There were no material breaches of the Distribution Asset Owner Licence Conditions or the Distribution Operator Licences during 2012.

## **2.7.7 Other improvements/initiatives during 2012**

### **Customer Service**

#### ***Service Quality Improvements***

#### ***Satisfaction Monitoring***

W5, BGN's independent survey company, phone customers who have contacted the BGN call centre within one week of the customer's initial contact to ascertain the level of customer satisfaction with the service provided. Call Back monitoring for 2012 yielded overall satisfaction of 98% out of 1,005 callbacks.

Mystery Shopper surveys are carried out by W5 staff who phone the call centre posing as customers and ask a series of questions to evaluate the quality of service provided by the agents. Mystery Shopper satisfaction achieved an overall performance of 96% in 2012 out of 978 surveys.

W5 also carry out surveys to determine satisfaction levels in relation to complainants (65%), field operations (86%), Public Reported Escapes response (94%), Meter Replacement (86%) and Connection Reps (100%).

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#### ***Service Information Improvements***

The Customer Care team within BGN continue to put in place initiatives to improve the overall Customer experience.

##### ***Customer Information***

Customer surveys across ten different BGN activities were conducted in 2012, and satisfaction results for all surveys exceeded our 2011 outturns, with a combined improvement, across all survey types, of 20%.

This year was the first time we asked customers about the level of effort required to interact with us. Overall we scored very favourably here across all of our processes with an average of 3.03 in 2012. (On a scale of 1-5, 1 being lowest customer effort, 5 being highest) The activity requiring least effort was the Contact Centre, with the complaints process requiring the highest level of customer effort. We will continue to monitor this to identify areas where effort could be reduced.

Every month all the satisfaction results and the key words identified by customers are circulated to the relevant operation managers with detailed analysis of the results provided.

In order to ensure engagement across the whole of the Networks business, the scores and key words are also published on the zone and uploaded to every screensaver for the month. We have received very positive feedback about the screensaver and the customer experience section on the zone has the most views of any other information area on the zone.

We conducted four Customer Experience days in 2012, with a typical attendance of 50 managers from across the business to focus on improvement initiatives to benefit our customers.

The Customer Information team provided all content for the connection, meter and customer section of the new Bord Gáis Networks website and developed a brand new commercial section with informative graphics and an online application form. We refreshed 14 Networks brochures and published them on the new site.

We partnered with Corporate Affairs and IT Security to draft a Social Media Plan, with the aspiration of providing a new customer communication channel in 2013. We are currently monitoring comments on social media sites relating to Bord Gáis Networks.

The 'Vulnerable Customer guide' and 'Customer Charter' were refreshed and approved by the CER for publication.

We submitted five articles about customer experience activities to Network News and translated two brochures to Chinese, Polish, Russian and French to further improve communication with our customers.

**Dial a Read and Web a Read**

**DAR**

Dial a Read (DAR) launched in September 2009. This is a self service solution for facilitating the input, by customers, of their meter readings to an automated system. There are many benefits, some of which include increased accuracy of the estimation process and a reduction in telephone calls directly to the Contact Centre. The number of calls from customers to the Dial a Read service decreased by 8.2% in 2012 to 116,633 calls. 82% of calls that were not user disconnected resulted in a successful completion, and 17% of the 18% were transferred to a Customer Service Representative to complete their meter read entry. Our Service Level Agreement (SLA) has a target of 80%. The remaining 1% were using the service outside the working hours of the Contact Centre.

<b>Online Self Service (DIAL A READ)</b>	<b>2012</b>
Calls Presented	116,633
Calls Abandoned (User Disconnects)	24,083
Calls Answered Excluding User Disconnects	92,550
<i>Calls Answered But Transferred</i>	15,775
Successful Completion Through DAR	75,927
<b>SLA (Target 80%)</b>	<b>82%</b>

### Web-A-Read

In October 2011 we successfully launched Web-A-Read (WAR) which is an online version of the DAR functionality. Throughout 2012 we have identified and implemented improvements in our Meter Reading Services processes to encourage customers to use the Web-A-Read offering, and recorded 9,121 successful meter read entries versus 1,849 Failures (83.1%)

Online Self Service (WEB A READ)	YTD
<b>Online Failures</b>	1,849
Failed at identification (abandoned)	429
Failed at Meter Reading (abandoned)	1,419
Completed form, Meter Read not successful	198
<b>Successful Completion</b>	9,121

### Businesslink

The number of calls from commercial customers decreased by 9% in 2012 to 24,104 calls. The service was set up in 2010 to provide a direct line for business customers without Interactive Voice Response (IVR). There was a big increase in the dial before you dig volumes and outbound calls in 2012.

Businesslink Inbound Call Performance				
Year	DBYD	Businesslink Direct	BGN #2	Total
2012	3,458	9,842	10,804	24,104
2011	1,515	8,678	13,859	24,052

Businesslink outbound calls								
	Design	Project Quot.	Contrib Recd	Service complete	Fit Meter Call	Buddy Calls	Txt	Totals
2012	161	434	592	215	1,050	1,455	420	4,327
2011	-	386	491	-	681	879	-	2,469

Businesslink Fulfilment			
2012	Siteworks Quotes	Welcome Pack	Total
	714	592	1,306

- Please note a dash in the table means the factor was not measured in 2011

## **Customer Service Awards**

The Customer Information Team submitted seven entries to awards schemes in 2012 and were successful shortlisted for six of these submission. For the first time, three of these submissions related to work conducted outside of the customer care team.

- **European Call Centre Awards:** The Meter Replacement Programme Team in our contact centre were shortlisted for team of the year in the esteemed 'European Call Centre Awards' in London, alongside very prominent brand names however they did not win the overall accolade. We were also named finalists for Small Contact Centre of the Year at the European awards.
- **Irish Customer Contact Management Association awards:** At the Irish Customer Contact Management Association awards, the Meter Replacement Programme team were again shortlisted but unsuccessful on the night.
- **Customer Service Training Awards:** At the prestigious Customer Service Training Awards in London, our submission, on behalf of the training team, on their training programme of field operatives in the use of handheld terminals was announced as a finalist; however it did not win the overall prize.
- **Process Excellence Awards:** A submission on the introduction of systemised emergency call scripting was shortlisted at the Process Excellence Awards (International Quality and Productivity Centre) in London.
- **Customer Contact Awards:** For the Customer Contact Awards in Glasgow we submitted the businesslink team for their efforts facilitating the commercial connections process and Team workflow, as a non-customer care submission. The businesslink team were successfully shortlisted and were awarded '*highly commended*' at the awards.

### **2.7.8 Siteworks Performance**

The BGN Customer Charter incorporates explicit commitments in respect of a range of customer facing services. The prices included in the Site works charging regime<sup>13</sup> have been determined in the context of continuing to provide these customer facing services in line with those published commitments.

**Table 2.7.4**

<p><b>Bord Gais Networks Site-works Services Standards – Performance 2012</b></p>
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<sup>13</sup> <http://www.cer.ie/en/gas-distribution-network-current-consultations.aspx?article=bb4768ef-ab2f-403b-aecd-ae1a3d763f59>

<b>Supplier Requested Work Returns</b>		
<b>Meter Related Activity Domestic &amp; Commercial</b>	<b>Standard</b>	<b>Performance</b>
Confirmation Out-turn/Read from Activity * -Special Read Requests. **  -All Other Requests. ***	90% ← 5 w/days. 100% ← 10 w/days.  90% ← 10 w/days. 100% ← 20 w/days.	98.4% ← 5 w/days. 98.4% ← 10 w/days.  99.4% ← 10 w/days. 99.6% ← 20 w/days.
Appointment Grant for Requests -Special Read Requests  -All Other Requests	100%← 5 working days.  100%← 5 working days.	100% ← 5 working days.  100% ← 5 working days.
<b>Supplier Requested Work Access Standards</b>		
<b>Meter Related Activity Domestic &amp; Commercial</b>	<b>Standard</b>	<b>Performance</b>
Isolation/ Disconnection  Attended As Appointment Access % Achieved  All Other Activities  Attended As Appointment Access % Achieved.	100% 60%  100% 100%	100% 44%  100% 98.7%



\*Out-turn is the message sent back to the shipper (complete or no access). There were commissioning issues relating to the transition of data through new computer systems that delayed the reporting of completed activities.

### **\*\*Special Reads**

Special reads are reads requested by customers through their shippers. Special Reads are carried out in instances of dispute with the customer regarding their bills. BGN carried out 61 of these requested jobs in 2012 up from 24 in the previous year. Special reads are charged to the customer.

\*\*\* Meter fits, locks, unlocks exchanges etc.

### **Debt management**

The low rate of access (44%) on shipper requested credit locks in 2012 is due to meters being located inside customer's homes combined with a further deterioration in household economic circumstances. When a BGN representative calls to lock the meter they maybe refused access. If the meter is outside, the BGN representative can attempt to lock the meter but must always tell the customer upfront as to why they are there. The Code of Disconnection states that BGN must inform the customer when they arrive on site as to what their intention is. In December we introduced a Pay Before lock system which allows the BGN representative to offer the customer the facility to ring the shipper/supplier before the lock takes place to agree to a payment plan. If no agreement is reached the representative locks the meter unless access is denied.

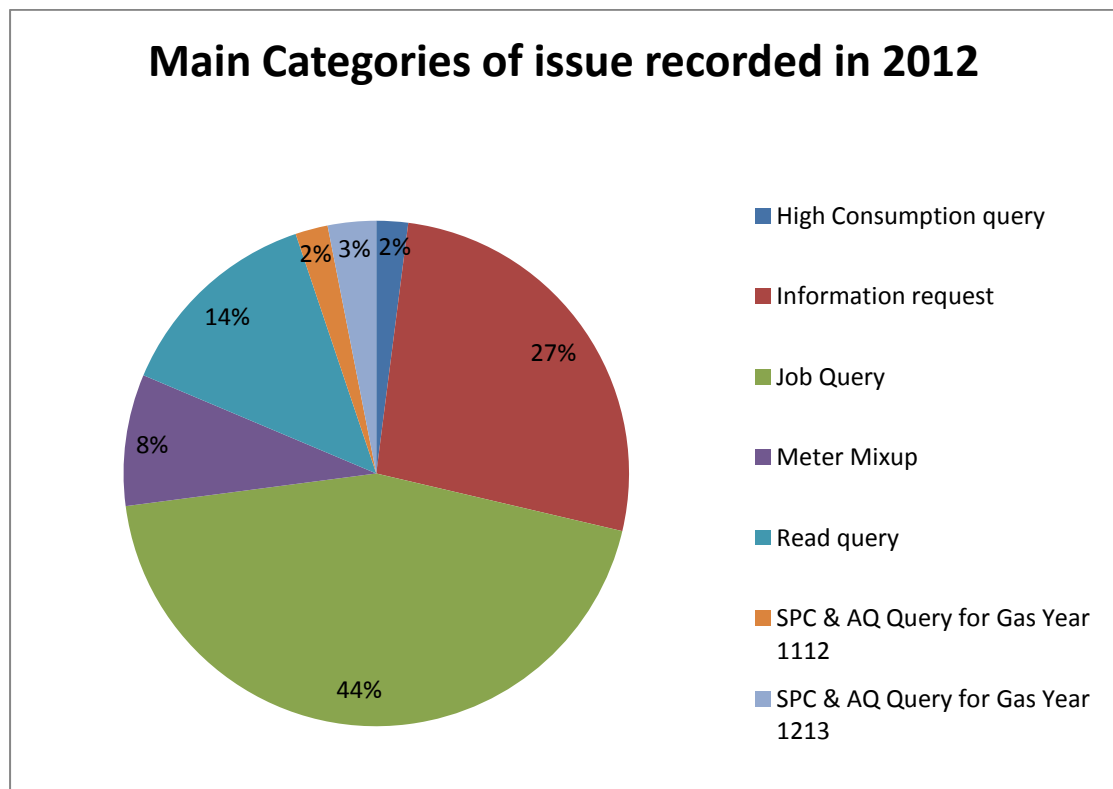
## Section 3: Other Performance Criteria

### 3.1 Shipper Issues

#### 3.1.1 Breakdown of Opened Shipper escalations by type

There were 2584 issues escalated to Shipper Services Key Account Management in 2012.

The main categories of issue recorded were:



**Figure 3.1.1**

There are a wide variety of issues escalated to the Shipper Services Key Account Management function, in addition to the day to day operational issues.

BGN and Gaslink are currently working with industry at the Gas Market Arrangements Retail Group (GMARG) and Code Mod Forum to agree process changes to reduce some of these issues. BGN and Gaslink continue to work proactively with Shippers on initiatives to identify possible issues in advance of problems occurring.

### 3.1.2 Average number of business days that a Shipper Issue was open (by issue type)

The average length of time that a Shipper issue was open was 5 business days.

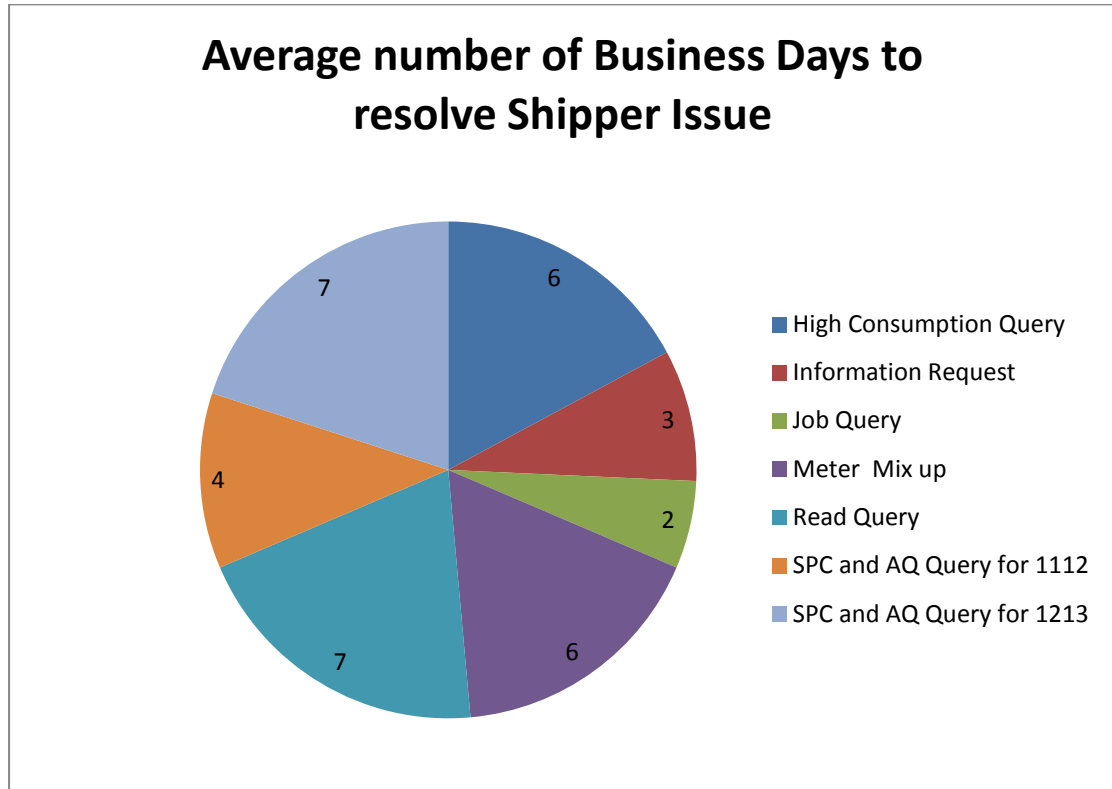


Figure 3.1.2

### 3.1.3 Shipper Issues Management

All Shipper issues are systematically logged by the Shipper Services Key Account Management function on the Shipper Issues system. Every issue is assigned a unique issue number and Shippers where requested receive an email confirmation of each issue and status within 3 business days. BGN provide each Shipper with an issue update every 20 business days thereafter as long as the issue remains open on its system.

### 3.1.4 Other BGN Service Standards – Performance 2012\*

Table 3.1.3

Customer Commitments	Performance Target	Actual Performance
<b>Shipper Operations</b>		
DM Change of Shipper	100%	100%
Entry Capacity Booking Requests	Process <= 20 days - 100%	100%
Exit Capacity Booking Requests	Process <= 20 days - 100%	100%
<b>Trading and Settlements</b>		
Invoice circulation	By 12 <sup>th</sup> day of month	100%
Provision of shrinkage gas quantity/cost estimates	Prior to October billing	100%
<b>Meter Reading Services</b>		
Access Rate	80%	86.2%
Read Rate	Average 3.2 Reads per site per year	3.47
Forecasting, Allocation and Reconciliation (FAR) Domestic reconciliation	80% within accuracy of 1,250 kWh	92.43%
FAR IC reconciliation <sup>14</sup>	80% within accuracy of 4,500 kWh	74.54%

<sup>14</sup> The IC Band (AQ between 73,000 kWh and 5,500,000 kWh) is larger than RD (0 to 73,000 kWh) so more difficult to measure the metric. A reconciliation difference of 10,000kWh may be very acceptable for a site consuming millions of kWh, but not acceptable for a site consuming only a few tens of thousands kWh so the performance target is not as reflective of the IC sector as for RD.