Executive Summary

Business Plan Appendices

30 November 2011

Scotland Gas Networks
A Scotia Gas Networks Company

Contents

Introduction

John Morea, CEO

Scotland Gas Networks is the operator of the regional gas distribution network in Scotland. We operate from the Scottish borders to north of Inverness. We cover all the main cities in Scotland, including Glasgow and Edinburgh in the central belt, as well as the sparsely-populated regions of the north east. We also operate five standalone networks which serve customers in Stornoway, Wick, Thurso, Oban and Campbeltown.

It is our responsibility to ensure that our networks are developed, maintained and operated to deliver gas safely and reliably, to meet our customers' energy needs. We have done this effectively and efficiently since we were formed in 2005.

We have managed this responsibility and met our key safety obligations each year, even during the two worst winters in Scotland for fifty years. We have achieved this through efficient operational performance and strategic investment in our assets.

This document is the executive summary of our Business Plan for the eight year period from 1 April 2013 to 31 March 2021. It has been developed following detailed discussions with our customers and other stakeholders over the past year. As such, we believe it balances our shareholders' expectations with customer value for money.

As an efficient company, our revenues, profits and cashflows should allow us to raise finance on reasonable terms in the capital markets. We do not believe that Ofgem's proposed financeability package allows us to do that. We are therefore proposing a cost of capital slightly above Ofgem's proposed range, along with some other financeability adjustments to manage our cashflows.

This new price control is output-based, and this Business Plan commits to a number of deliverables for the funding we are proposing. For example, we will reduce the risk of gas escaping from our network, improve the health and condition of our assets and continue to meet all of our safety obligations.

We are committed to playing our part in helping to move the United Kingdom (UK) to a low carbon economy. As such, innovation is embedded in our culture and in our business plan. We are keen to participate in the new Network Innovation Competition and will bring forward schemes in the first year of its running.

We continue to be supportive of incentive based regulation. Indeed, we are disappointed with the range of incentives proposed by Ofgem and have, after consultation with our stakeholders, proposed an additional incentive around raising carbon monoxide awareness. We also propose to extend, rather than reduce, the very successful discretionary reward scheme.

As part of Scotia Gas Networks, we have achieved a great deal since we were formed in 2005. A number of our achievements have been recognised through industry awards:

- **Young Person's Achievement Award**, issued at the Gas Industry Awards (run jointly by the Institution of Gas Engineers and Management (IGEM) and the trade association SBGI), May 2011;
- **Occupational Health and Safety Gold Award**, issued by The Royal Society for the Prevention of Accidents (RoSPA), September 2010.
- **Achievement** category at the Gas Industry Safety Group (GISG) Awards, 2010.

Our **Vision** is to be the leading operator of gas networks in the UK. We will operate a safe and secure gas network, consisting of a predominantly polyethylene pipeline system, which has low emissions and is able to accept gas from multiple sources, including gas produced from renewable sources. We will demonstrate outstanding performance in customer service, minimise our environmental impact, operate a safe and reliable network and be responsible to the communities we serve. We want to make a real difference.

This Business Plan will deliver our **Vision** and, I believe, provide real value for money for our customers.

John Morea, CEO

This Document

This document has five sections:

Section 1. About our Business Plan
This section explains who we are, what we do and how we have developed our Business Plan.

Section 2. Meeting our Customers' Needs
Our Business Plan is underpinned by a strategic view that puts the customer at the heart of our operations. This section sets out **Our Goals** for the coming eight years to ensure the activities we carry out and the services we provide meet our customers' and stakeholders' needs.

Our Goals for 2013 onwards are as follows:
Acting safely
We will deliver the highest standards in safety across our network
Providing excellent service
Our customers expect, and we will provide, outstanding performance in all aspects of the work we do
Being good neighbours
Our business decisions will take into account the environmental impact and needs of the communities we service now and in the future
A business for the future
We will continue to lead the sector on operating efficiency; support and develop our workforce; promote innovation that results in measurable improvement in business practices and promotes sustainability

Section 3. Maintaining the Efficiency of our Business
The standards we have set are high. We plan to deliver these goals and the range of benefits set out in this Business Plan while retaining our sector-leading record on operating cost efficiency.

Section 4. Dealing with Uncertainty
In developing our Business Plan, we have sought to identify and understand all the risks and uncertainties that our business will face to 2021. Where appropriate, we have included actions to either mitigate these risks or delay investment until the future becomes more certain. We have also proposed mechanisms to adjust our allowed revenue if more information comes to light.

Section 5. Delivering the Plan
Distribution transportation charges account for around 15% of the customers' charges. Energy costs are rising and we know we need to do our bit to keep our costs down. In this section we describe the assumptions we have made in our Business Plan and what this means for customers' bills.

Our Business Plan for the next 8 years sets a high standard:

- We plan to improve the service we deliver to our customers while retaining our sector-leading record on operating cost efficiency;
- We plan to invest in our assets to improve the safety and reliability of our network;
- We plan to change the way we work to minimise the impact our activities have on the environment and minimise disruption for our customers and communities; and
- We plan to implement new customer driven initiatives to reduce fuel poverty and increase awareness of carbon monoxide.

Our deliverables through to 2021 include the following key outputs:

Emergency response: we will continue to meet the 97% attendance standard for gas escapes
Risk: we will reduce the risk of incidents from iron pipes by 35%
Asset health: we will improve the health and condition of our assets, ensuring they are in a good or serviceable condition as defined by Ofgem's asset health index 'H2'
Environment: we aim to meet or beat Ofgem's target for reducing leakage from our network; we will raise awareness of the dangers of carbon monoxide
Customer service: we will reduce customer complaints by 30%; we will improve our overall customer satisfaction score to '9 out of 10'

Totex requirements
To ensure these deliverables we require an average annual Totex of **£199m**, split as follows:

Opex:	**£76m**;
Repex:	**£65m**;
Capex:	**£53m**; and
Exceptional items[1]:	**£5m**

Financeability and Allowed Revenue
Our financeability package includes a 4.6% real, post tax cost of capital and a cash neutral impact to depreciation and capitalisation policy.

This means our average annual allowed revenue requirements will be **£271m**. In addition, the new IFRS accounting policies will start to impact our tax charge from 2015/16 which, along with true-ups from the current price control, will increase our allowed revenue requirements to £286m p.a.

Impact on Customers' Bills
We believe the improvements we will deliver will have no significant impact on customers' bills. We will also seek to minimise price volatility during RIIO-GD1.

The proposals in this Business Plan will result in an average annual increase of around 1p per day for a typical household in Scotland.

[1] Land decontamination and gas holder decommissioning

Section 1. About our Business Plan

This section explains who we are, what we do and how we have developed this Business Plan.

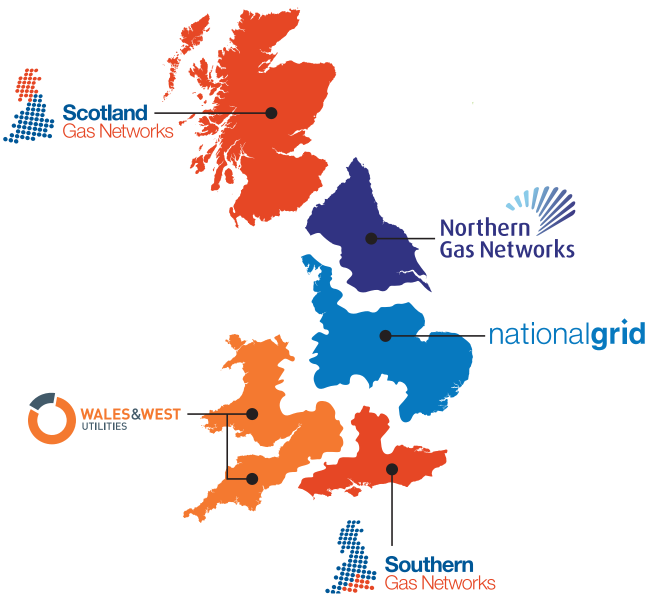
Scotia Gas Networks

Scotia Gas Networks (SGN) is the UK's second largest gas distribution network company. We are a privately owned company; our shareholders are SSE plc, Borealis Infrastructure Europe (UK) Limited and Ontario Teachers' Pension Plan Board Investments (UK) Ltd. We own and operate two gas distribution networks (Figure 1).

Scotland Gas Networks is the owner and operator of the regional gas distribution network in Scotland. This encompasses the two main cities of Glasgow and Edinburgh in the central belt, where the majority of our customers are located. We also operate five standalone networks known as the Scottish Independent Undertakings (SIUs) which serve customers in Stornoway, Wick, Thurso, Oban and Campbeltown. We deliver gas to 75% of Scottish households and serve around 1.8 million customers across the whole of Scotland.

We also own **Southern Gas Networks** which operates in the south and south east of England (see Figure 1). Southern Gas Networks delivers gas to around 90% of households in its network area and serves around 4 million customers.

Across both our networks the primary focus of our business is the same: **to deliver gas to our customers safely, reliably and efficiently**.



This focus is reflected in **Our Values** which guide how we behave as we work together now and into the future.

Our Values are:

Safety
We all take responsibility for our own safety and for the safety of others.

Performance
We strive for commercial success through efficiency, continuous improvement and innovation.

People
We work and develop together with honest communication and respect.

Customers
We listen to and understand our customers' needs, deliver a quality service and keep our promises.

Our world
We show through our actions that we care about the world and the communities around us.

These values shape everything we do and every choice we make on behalf of our company. Having a shared set of values helps us to make decisions and, in the process, we believe it makes our company better. Our values underpin our actions today, and also our plans for the future which are set out in our Business Plan.

The Regulatory Framework, RIIO-GD1

Our licence restricts how much revenue we are allowed to collect through our transportation charges. These are agreed with Ofgem through a process known as the 'price control'. The next price control will run from 1 April 2013 for the next eight years. It will be the first to be set under a new framework developed by Ofgem called **RIIO**. RIIO stands for:

Revenue = Incentives + Innovation + Outputs

The gas distribution price control that will run from 1 April 2013 to 31 March 2021 will be known as RIIO-GD1.

What our customers and other stakeholders have told us

An overview of the key issues raised in our discussions with customers and other stakeholders is provided below. This is intended to be representative rather than comprehensive.

RIIO-GD1 places a great deal of emphasis on outputs. Our Business Plan for RIIO-GD1 has been developed to deliver the outputs our customers and other stakeholders have told us they value and are willing to pay for. Our Business Plan is the result of extensive discussion with all our stakeholders over the past year. More detail can be found in the Stakeholder Engagement chapter in this Business Plan but a summary of the key stages is provided below:

- Our stakeholder engagement programme for RIIO-GD1 started with our preliminary stakeholder consultation in August and September 2010. This was used to help identify our stakeholders' priorities and thoughts on how they wanted to engage with us.
- The information we obtained from the preliminary consultation was used to develop our 'Stakeholder Live' event that was held in Edinburgh in February 2011. The 'Live' event was used to test our ideas and explore stakeholders' views in more detail. The event was well attended and we received some excellent feedback and suggestions.
- We then used the information obtained from the 'Live' event to develop other more targeted events, looking at specific issues in more detail with specific stakeholder groups e.g. customer focus groups; meetings with contractors and suppliers; staff events; meetings with local authorities, builders and planners; discussions with the Health and Safety Executive (HSE) etc. We have also engaged with Government, investors and trade associations about our Business Plan.
- All our events helped inform the development of our Business Plan and in September 2011 we issued a summary of our proposed plans for consultation. Responses to that consultation have been taken into account in finalising this detailed Business Plan.

What our stakeholders have told us:

Our performance: Customers and other stakeholders told us our performance and efficiency when we carry out our work is important to them. Respondents to our September 2011 consultation told us they expect us to deliver value for money for end customers.

Customer service: Customers consistently told us they want us to listen to them, understand their needs, keep our promises and deliver a quality service.

Communication: Stakeholders suggested there is scope for us to improve communication in some areas of our business. They want us to make full use of new technology and more convenient and efficient methods of communication.

Safety: Along with performance, stakeholders told us safety is important to them. Feedback on our performance to date is positive but customers clearly expect us to maintain this.

Gas holder removal: Customers and other stakeholders were surprised at the age of these assets and shared our concerns regarding the environmental and safety implications. There was strong support for their removal providing this doesn't compromise network reliability.

Emergency response: Customers said they value our emergency response service. Some likened it to other emergency services. They do not want any deterioration in safety.

Mains replacement programme: Stakeholders understand the importance of our work in this area in delivering a safe and reliable network. As such, they are generally supportive of our investment plans but want us to work "smarter" and minimise disruption to road users and customers.

Gas availability: A broad range of stakeholders told us demand for gas is likely to remain strong for the foreseeable future. There was strong support for the work we have already done and encouragement to do more to find "alternative cleaner and greener energy sources" that can be "integrated into existing systems".

Network reliability: The very low level of interruption on our network was commended and taken as a good indication of network reliability. Similar to emergency response, stakeholders told us they now take this for granted, even in the most extreme conditions.

Stakeholder feedback from all our events underpins our Business Plan for RIIO-GD1.

Section 2. Meeting our Customers' Needs

For a total expenditure of £206m (including £7m spend on shrinkage and innovation) we will deliver the outputs detailed below for our customers

Scotland Gas Networks	Our Goals: Acting Safely	Providing Excellent Service	Being Good Neighbours	A Business For the Future	Safety & Reliability	
Controllable Opex Emergency Response	✓				Meet or beat the 97% standard	
Repair	✓				Maintaining the current level of residual risk score and percentage of reported escapes prevented within 12 hours.	
Maintenance	✓				Improving asset health indices from HI4 to HI2	Reducing current level of faults / interruptions
SIUs	✓				Maintain integrity of current operational assets	
Customer Service		✓				
Apprentice and Training				✓		
Work Management and Business Support	Enabling Processes					
Sub-total						
Mains Replacement Repex	✓				Reducing incident risk by 35%	
Sub-total						
Capex Capacity - LTS and Reinforcement	✓				Meeting our '1:20' Obligation	
Asset Integrity	✓				Improving asset health indices from HI4 to HI2	Manage faults and offtake metering
Network Security	✓					
Connections				✓		
Embedded Entry				✓		
Other Capex	Enabling Processes					
Sub-total						
Other Expenditure Shrinkage			✓			
Innovation				✓		
Gas Holder Decommissioning			✓		Remove environmental and safety risk	
Statutory Decontamination			✓			
Sub-total						

Output Policy Areas			Funding
Social & Environment	Customer Service		£m per annum (9/10 prices)
			15
			8
			10
			8
	Improve satisfaction scores to 9 out of 10, reduce complaints by 30%, reduce referrals to the Ombudsman by 50% and improve GSoP performance	Leading GDN on Stakeholder Engagement	2
			3
			30
			76
			65
			65
			13
			17
			0.3
Continue to serve fuel poor communities			7
Facilitating biomethane connections			Uncertainty mechanism
			15
			53
Manage leakage baseline			6
			1
Demolish 22 Holders			2
Number of sites taken off risk			3
			12

Acting Safely

Our Capacity Investment Programme

We have an obligation under the Gas Act to develop and maintain an efficient and economical pipeline system and our licences require us to plan and develop our network to meet the Pipeline System Security Standard. We have to be able to meet an expected peak day demand that is likely to be exceeded only once in every 20 years. This is known as our "1 in 20" obligation.

We have been very successful in meeting this standard and our stakeholders are clear that they expect us to continue to invest in our network to maintain security of supply. Even in extreme conditions, as experienced over the last two winters, they do not expect any deterioration in this standard.

It is essential that we have confidence in our demand forecasts as they are central to our capacity plans. Our forecast for RIIO-GD1 shows that annual demand will peak in 2016/2017 then start to decline. However, we forecast a slight increase in peak day demand through the rest of RIIO-GD1.

We plan to invest £102m over RIIO-GD1 to deliver the safe and reliable network that our customers have told us they expect.

Our Asset Integrity Programme

Safety remains our top priority. Maintaining the integrity of our assets to ensure gas leaks and incidents do not happen is at the core of our safety strategy. We have rigorous process-driven procedures to monitor our assets on a regular basis and assess and prioritise maintenance and investment options where deterioration in the condition or performance of an asset indicates intervention is required. We need to increase our investment in this area during RIIO-GD1 due to the age and condition of critical assets such as governors and pressure reduction stations which are now reaching the end of their operational lives. In addition, many of the governors on our network are now obsolete or do not comply with current industry standards. We are also investing in our offtake metering systems to improve the overall meter accuracy on our network.

We have looked at alternatives but concluded that the assets need to be replaced to maintain the safety and reliability of our network. We have discussed our proposals with a range of our stakeholders. Based on the criticality of the assets there was strong support for our proposals.

We plan to invest £98m in general network integrity, £34m in governors and £6.5m in offtake metering over RIIO-GD1 in order to improve the health and condition of our assets and maintain the integrity of our network.

Our Mains Replacement Programme

We have a requirement under the Pipeline Safety Regulations to ensure that a pipeline is maintained in an efficient state, in efficient working order and in good repair. We agree our approach to iron mains with the HSE.

The HSE has recently undertaken a comprehensive review of the programme to identify the most cost-effective way to reduce the risk posed by the gas networks. We have fully supported and participated in this review.

The HSE has concluded that we should move to a "3 tier approach" to iron mains risk management, reporting on length managed. We will also agree a 'risk removed' primary output measure with Ofgem.

We have therefore developed a programme of work for RIIO-GD1 which will meet the HSE requirements whilst allowing us to develop larger and more flexible projects (including risers) that will continue to improve the safety and reliability of our network; reduce disruption for our customers and communities; and provide better value for money.

We plan to invest just under £523m on mains replacement over RIIO-GD1. This investment will reduce the risk of an incident from iron pipes by 35%.

Emergency Response and Repair

Notwithstanding the investment in our network, gas can still escape and pose a danger to the public. We operate a 24/7, 365 days a year emergency service and have a licence standard for responding to emergency calls that requires us to attend at site in 97% of cases within one hour for an uncontrolled gas emergency (two hours for controlled). In 2010/11 we received 102,517 calls which required expert attendance at site. Some of these incidents result in gas escapes which we repair to make safe.

We have met these standards despite some very difficult conditions. During the winters of 2009/10 and 2010/11 we have had to endure extreme weather conditions and overcome significant disruption to the transport infrastructure in Scotland. Due to our investment strategy and the commitment of our staff we met the standards even in such conditions.

Our stakeholders told us they value this service and would not accept any deterioration; and it is in the harshest conditions they value this service most.

However, due to its nature, the service is costly to resource. In the past we found 'filler' meter work for our first call operatives to help balance the workload and offset some of the cost, but the metering market is changing and we won't be able to combine the two tasks to the same extent in future.

In order to meet the 97% standards we need funding of £117m over RIIO-GD1, assuming we obtain c. 10% 'filler' work. We will also spend £66m carrying out repairs to make safe.

Providing Excellent Customer Service

How we perform when we carry out our work and how efficient we are was a theme discussed consistently across all our stakeholder events.

Customers who responded to our preliminary stakeholder consultation told us our performance was the most important thing to them. They expect us to listen to them; understand their needs; keep our promises; deliver a quality service; take their comments and complaints seriously; and act quickly to put things right. Our Business Plan takes these comments into account and reflects our proposals to provide outstanding performance in all aspects of the work we do.

Dealing with Complaints

We are committed to increasing customer satisfaction across all our activities and are proud of our performance to date. However, we can still get things wrong. We are always disappointed when we receive a complaint but we take it very seriously and always strive to deal with customers' concerns thoroughly and promptly. In 2010/11 we received 404 complaints, as reported under our Guaranteed Standards return. This was down 23% compared with the previous year. We aim to provide a substantive response to complaints within 10 working days but where we need to carry out further enquiries or a site visit, the standard is 20 working days. We currently meet this standard most of the time. In 2010/11 only one complaint was not dealt with within the standard.

We have listened to our customers' comments and going forward we want to improve on these results. Our strategy is to deliver a revised operating model for RIIO-GD1 which will improve our overall customer satisfaction, reduce customer complaints and deliver a robust ongoing stakeholder engagement programme.

Improving Customer Satisfaction

Our Business Plan sets out our proposals to conduct regular research and customer satisfaction surveys to get customers' views on our performance and how we can improve. We also plan to expand our work to review feedback we receive from customer contact with frontline staff and use this to develop our staff training and customer service programme. We want to be able to identify problems as they occur and take action to resolve the situation quickly. We are also committed to meeting our customers' and other stakeholders' expectations by providing timely information so they can see how we are performing and develop a better understanding of what we do. A key part of this will be the publication of our Report Cards. They will be published on an annual basis and will set out our performance against our targets for each of our goals.

Better Communication

Feedback from our stakeholders shows that they want choice in the way we communicate with them. They also expect us to embrace new technology. Given that RIIO-GD1 stretches out to 2021, we believe we need to plan to ensure we are geared up:

- To make more static and dynamic information available on our website such as "film clips" showing customers what to expect during mains replacement and making information available on current replacement projects.
- To provide online connections services, including application, quotation, payment and planning options
- To make use of text and other forms of electronic messaging and communication for emergency, replacement and connections work.

Benefits and outputs will be measured through improved customer satisfaction and reduced complaints.

Ongoing Stakeholder Engagement

We plan to develop and deliver a stakeholder engagement programme that will allow us to continuously test and explore all our stakeholders' views about us and the services we deliver. We will use this information to ensure we deliver the services they want and value most in an efficient and cost-effective way.

Further information

More detail on how we intend to improve our customer service can be found in **Chapter 5**. Details of our planned expenditure to improve communication is provided in our section on Information Technology (**Section 9.2**).

Being Good Neighbours

We recognise the importance of ensuring our network is able to meet the needs of current and future customers. Our Business Plan aims to ensure that we maintain our efficient operational performance while reducing our environmental impact and recognising the needs of the communities we serve. It also sets out our plans to develop our workforce and promote innovation.

Reducing our Environmental Impact

As gas is being transported a small amount leaks as it moves through the pipeline system. Some gas is used in the transportation process and some gas is also stolen. Collectively this is referred to as shrinkage, which accounts for about 0.5% of our throughput and 98% of our business carbon footprint.

We have already done a great deal to reduce shrinkage, building up a good understanding of where and how it occurs and fitting new pressure management control systems. We want to build on these achievements and our mains replacement and asset integrity programmes, along with maintaining and repairing our pressure management systems, will help us to meet or beat Ofgem's shrinkage target.

Carbon Monoxide Strategy

Each year Carbon Monoxide (CO) poisoning results in fatalities and serious injuries in homes, businesses and industrial premises. HSE statistics show that around 15 people die from CO poisoning each year across the UK.

The All Party Parliamentary Gas Safety Group issued a report in October 2011 which concluded as part of its review that there is a real need to raise awareness of the dangers of CO amongst the general public.

We agree. Increased public awareness of the dangers of CO could help reduce risk and the number of incidents. We have already implemented a number of initiatives and have also issued all our front line staff with Personal Activation Monitors (PAMs) which provide early warning where CO is detected in the atmosphere.

Our stakeholders are very supportive of the work we have done to date. However, throughout all our discussions they told us they did not support an extended role for the GDNs regarding CO, but they would like us to do more to raise awareness. As such our Business Plan sets out our proposals for an incentive mechanism so that GDNs can develop and implement targeted awareness campaigns that include giving advice when attending emergency calls, providing metering services, connections work etc.

Gas Holder Removal

Our above ground gas holders are used to store gas to help manage flows on our network and changes in daily demand. Compared with the rest of our assets, gas holders represent a heightened safety and environmental risk. They are old (some more than 100 years old), their condition is deteriorating and they require significant maintenance to keep them in a safe state. They also tend to be located close to communities and are unsightly.

We plan to dismantle and remove all 22 gas holders located on our network by 2021. This programme will enable us to remove the societal, environmental and safety risks associated with these ageing assets. We have consulted with our stakeholders, including the HSE, who fully support our proposals in this area.

We plan to spend £20m over RIIO-GD1 removing 22 holders from our network. This will improve safety and environmental impact and will reduce maintenance costs in the long term.

Fuel Poor Connections

The number of households in the UK in fuel poverty has been rising since 2004. Official government statistics put the number of households in the UK in fuel poverty in 2009 at around 5.5m. The number is thought to have risen in 2010 and is forecast to continue to rise during 2011.

Since April 2009 we have been working with local authorities and housing associations to support the government's 'non-gas fuel poor network extension scheme' to connect vulnerable and fuel poor customers to our gas networks and ensure they have access to more efficient and more affordable energy. To date we have connected more than 4,000 households in Scotland. We plan to have connected a total of 8,000 by the end of current price control period.

Our stakeholders support our work in this area and confirmed we should do more. As a result our Business Plan takes into account the needs of the communities we serve and sets out our plans to connect a further 11,000 households over the RIIO-GD1 period. We will continue to work in partnership with third parties who can help ensure our actions are targeted at the most needy and ensure in-house works (installing boilers and heating systems) are carried out and the full benefits of installing a gas connection are realised.

We plan to spend £23m over RIIO-GD1 connecting a further 11,000 vulnerable and fuel poor households to ensure they have access to more efficient and more affordable energy.

A Business for the Future

Our stakeholders have told us that they believe gas will remain the fuel of choice for the foreseeable future. Gas networks are flexible and in the short to medium term we believe they will be vital for the supply of low carbon heat, transporting biomethane, regarded as one of the lowest cost and most scalable forms of renewable and low-carbon heat. In the longer term, more substantial impacts for the networks are likely if national carbon targets are met. There are a number of innovative low carbon technologies including micro CHP, fuel cells and hydrogen which all require reliable networks.

We need to ensure our activities are flexible and our network remains fit for purpose beyond 2021. We need to be adaptable to accommodate whichever energy scenario evolves for 2050. As such our Business Plan sets out our intention to work with other industry players to explore and help facilitate all options for the future.

Embedded Entry

As part of SGN we have already started work in this area. Southern Gas Networks worked with Thames Water and Centrica to develop and deliver the UK's first 'green gas' project to take biomethane from sewage waste directly into the distribution network.

We welcome Ofgem's decision to fund connection costs if there is a move from a 'deep' to a 'shallowish' connection boundary for injecting gas into the networks.

We are forecasting the connection of 26 new embedded biomethane plants during RIIO-GD1 with a total expenditure of £21m.

Providing Connections to our Network

We currently provide around 12,000 new gas connections each year for domestic and commercial businesses. Some of our work is provided under licence, where there is no alternative service provider, but other activities are fully contestable, meaning the customer can 'shop around'. Due to the recent economic climate we have seen a slight decline in the level of connections activity, but we expect growth to return during 2014/15 and 2015/16 before flattening off for the rest of RIIO-GD1.

We have also listened to our customers' comments made during our stakeholder engagement programme and identified a number of areas where we can make further improvements. Customers who have experience of our connections services suggested a number of improvements which we are looking to act upon during RIIO-GD1.

We plan to spend £37m net of customer contributions during RIIO-GD1 providing the connections services that our customers expect.

People

To meet the targets we have set ourselves in our Business Plan we rely on the commitment and skills of our staff and contractors. Without an appropriately resourced and capable workforce we will not be able to meet our goals and deliver our plans.

We will continue with a focused apprenticeship programme to ensure we have the right resource model for the decade ahead.

We encourage all our staff to undertake training and development and contribute to the future of our business. However, we will face significant challenges over the next decade as a substantial proportion of our staff reach retirement age. We have therefore developed a comprehensive recruitment and training package for RIIO-GD1. This complements the Government's aspiration to provide skilled opportunities to school leavers.

Our Business Plan sets out our proposals to spend £22m to retain, recruit and train staff to ensure we have the skills and knowledge required to realise our vision.

Innovation

While it is difficult to plan for the challenges the future may bring, we can ensure that we are flexible and ready to respond to the challenge. Central to this is our culture of innovation that we have worked hard to develop over the last few years.

Our staff suggestion scheme has been running since 2008 and encourages ideas that will improve our efficiency and effectiveness. A number of initiatives have now been implemented such as the portable hydrometer to help detect where water is getting in to our network and avoid numerous excavations. We have also used the Innovation Funding Incentive (IFI) to research and trial new initiatives such as alternative forms of pre-heat.

While very successful to date, our approach to innovation doesn't stop there. During RIIO-GD1:

- We intend to fully utilise funding through the Discretionary Reward Scheme;
- We plan to make full use of our experience through the IFI under the current price control period to access the Innovation Allowance to address key challenges across the spectrum of projects from research through to demonstration; and
- We also plan to make use of the Network Innovation Competition (NIC), developing ideas and products to aide the delivery of a low carbon energy sector. We are keen to work with third parties under the NIC.

Section 3. Maintaining the Efficiency of our Business

Benchmarking

The funding proposals set out within this business plan represent an efficient, value for money service for our customers. This is substantiated through an analysis of historic expenditure performance, assessment (e.g. regressions) and comparison of market prices / benchmarking throughout the plan.

Ofgem published regressions in its March 2011 Strategy Document which identified different levels of performance between the eight networks. We have been asked to separate this gap between underlying efficiency and company specific factors.

Our conclusion is that for both operating costs and replacement, the gaps can be wholly explained through company specific factors and demonstrate that Scotland is frontier / upper quartile performing. This means that we can use 2010/11 as a robust baseline in projecting our plan forward.

Company Specific Factors

To support our conclusions, we commissioned **Deloitte** who recommend valid adjustments that should be made to the Ofgem regressions in order to enable robust efficiency comparisons and the high level results are:

- Labour costs – recommended adjustment for Scotland (1.02 Direct Labour, 0.98 Contractors - Ofgem 0.95 and 0.97)
- Sparsity – recommended adjustment of £1m p.a. reflecting additional costs of emergency cover in remote areas
- Weather – recommended adjustment of £1.5m reflecting the impact of more severe weather in Scotland

We have also explained some of the gap though analysing the costs of TMA / TSA which differ across each of the eight networks.

Finally, we have put forward some alternative workload drivers which we believe better reflect the cost base, e.g. repairs

Other Benchmarking

Benchmarking of Indirect Costs and Capex is more challenging using traditional regression analysis; we have justified our historical costs using third party reviews (IT and insurance) and on Capex, we have used market tested projects backed up by best practice reviews conducted by **Jacobs**.

In summary, we believe the relative rankings for the Opex and Repex regressions are as follows:-

	Panel Data Ranking – Repex							
GDN	EoE	Lon	NW	WM	No	Sc	So	WW
2008/09	3	8	6	1	4	5	7	2
2009/10	3	1	7	8	6	4	5	2
2010/11	2	5	7	8	6	3	4	1

	Panel Data Ranking – Top Down Opex							
GDN	EoE	Lon	NW	WM	No	Sc	So	WW
2008/09	8	6	7	4	3	1	2	5
2009/10	5	8	7	6	3	1	2	4
2010/11	5	7	8	6	3	1	2	4

Productivity and Real Price Effects

In rolling forward our workload assumptions that are detailed in our Business Plan, we have applied assumptions on productivity and real price effects (RPEs) which have both been endorsed by third parties:

Productivity Assumptions

First Economics concludes that Scotland Gas Networks will deliver all of its de-merger savings (15%) during the current price control and needs only to target frontier shift going forward.

Opex	Repex	Capex
1.0%	0.5%	0.6%

Real Price Effects

Oxford Economics have recommended real price adjustments for various cost categories:-

Base Real Price Effects		Average GD1 %p.a.
Labour	Staff	1.0
	Industrial	1.0
Materials	PE Pipe	1.0
	Steel	0.7
	Fuel	2.4
	Reinstatement	0.6
Contractors	Third Party & SGNC	1.5

Best Practice

Jacobs have reviewed our investment and asset management processes and endorsed our proposals.

Market Testing

We have analysed recently market tendered Capex projects in determining project costs covering large areas of our Capex Plan, specifically LTS and asset integrity.

Section 4. Dealing with Uncertainty

Uncertainty

Our economy is in the midst of the worst recession in over fifty years and the financial markets are facing one of the most prolonged periods of instability. For the energy sector, reduced access to capital markets at a time when significant investment is required to replace ageing assets is a significant challenge. The energy sector also faces uncertainty as we move to a low carbon economy. However, we believe the gas networks are an important asset that can be adapted for other uses such as green gas, carbon capture and storage or even to support hydrogen, long into the future.

In developing our Business Plan, we have sought to identify and understand all the risks and uncertainties that our business will face over the eight year period from 2013 to 2021. We have assessed these risks in terms of the likelihood of them occurring and in terms of the impact they may have on our business. Where appropriate, we have included actions to mitigate these risks or alternative arrangements to help avoid or delay investment until the future becomes more certain.

We have also proposed mechanisms in our Business Plan to adjust our allowed revenue if more information comes to light e.g. on areas such as the development of green gas and changes in European legislation.

Details of specific uncertainties and adjustment mechanisms are set out in **Chapter 2** of the Business Plan.

Risk

Risk management is a fundamental part of our business. The SGN Board is responsible for our system of risk management and have delegated aspects of this process to an Audit Committee which bi-annually reviews reports on the management of the system of internal control presented to it by the Group Audit Manager. We use a 'Group Strategic Risk Map' as the basis for the bi-annual review.

In addition to the bi-annual review, risk registers are incorporated within delivery of the audit plan. Each department and major project manages its own risk register. Risks are assessed against an agreed set of criteria based around financial, environmental, safety or reputational impact. Controls and assurance mechanisms are put in place to manage and / or mitigate risk.

Price Volatility

Over the past year, shippers and suppliers have also told us they would like more information and notice of changes in our charges to allow them to manage their charges to customers. We agree that the process could be better and we have proposed changes in our Business Plan to give more notice and avoid price volatility.

Details are set out in **Chapter 2** of the Plan.

Scottish Independent Undertakings

Our five standalone networks deliver gas to the remote areas of Stornoway, Wick, Thurso, Oban and Campbeltown. Stornoway is supplied by Liquid Petroleum Gas (LPG) and the four mainland SIUs are supplied by Liquefied Natural Gas (LNG).

In 2010 National Grid LNG informed us that the condition of its LNG facility at Glenmavis had deteriorated and from 2011 we have only had access to the LNG facility at Avonmouth, using Glenmavis as a 'buffer' stock as we transport LNG from Avonmouth to the SIUs. This has introduced significant risk to our remote customers, indeed in late 2011 the liquefaction facilities at Avonmouth failed for a short while which proved the need for the Glenmavis 'buffer' to maintain supply.

We are currently developing alternative supply arrangements based on Compressed Natural Gas (CNG). These medium term proposals will ensure that 75% of the SIU demand is met by CNG.

Going forward for RIIO-GD1 further investment will be required to develop our infrastructure and ensure security of supply to these remote communities. We will ensure we are not reliant on a single source of supply in the future; our intention is to develop an enduring solution that takes account of demand reduction, demand-side management and green gas options such as biomethane. However, there are currently still many unknowns with regard to a cost-effective, 'green' solution for the four mainland SIUs. We are therefore proposing an uncertainty mechanism where we will bring forward proposals for an enduring solution by 2015.

Details of our strategy for the SIUs are provided in **Chapter 2** and **Appendix R**.

Section 5. Delivering the Plan

Context

Our Business Plan highlights the need to spend £245m per annum to deliver what is important to our stakeholders. This encompasses the need to maintain networks that are safe and reliable, as well as new investment. As a result, we will need to raise approaching £600m of new and replacement debt during GD1.

We are committed to providing best value for our customers whilst ensuring ultimately that we are able to secure the investment that they require. We have therefore developed a robust financing plan, incorporating prudent, pragmatic and objectively reasonable assumptions, to ensure we are able to deliver for our customers, the environment and our investors.

Financial and capital markets have been extremely volatile ever since the financial crisis of 2008 and the outlook remains uncertain. The ongoing sovereign debt crisis in the Eurozone, in particular, suggests markets are unlikely to stabilise any time soon. Further, the growth in the broader economy remains weak and difficult to predict. Combined with the new RIIO price controls, the implications of Electricity Market Reform proposals and the ongoing, but uncertain, challenges presented by the need to adapt to climate change, the challenge of financing our activities over the next ten years to 2021 is more uncertain and challenging than at any time since privatisation.

We are long term investors in our two networks and are committed to the long term stewardship of our assets. Our equity return requirements in our business plan reflect our view of the risk profile over the next eight years and the uncertainties on cashflow and returns.

Cost of Capital Requirements

Therefore, achieving an appropriate return has been a key focus for us and we have carefully considered evidence on both the cost of equity and cost of debt.

With regard to cost of equity, we have examined both the CAPM principles and the risk faced by our shareholders. This produces a range of between 6% and 8.7%. Our Business Plan is based on a **7.5%** equity return.

We have also examined the practicalities of raising nearly £600m of debt during GD1 against the iBoxx index and believe that at least **60bps** needs to be added to the index to incorporate additional risks, issue premium and actual costs not covered by the index.

Finally, we have looked at the notional gearing and conclude there should be no change from the current **62.5%**.

In total, we are proposing a weighted average cost of capital of **4.6%** (real post tax).

Financeability

In order to assess the financeability of our proposals, we have taken our cost of capital proposals and carried out scenarios based on plausible performance outcomes. We have assessed these outcomes in terms of:-

- Return on Equity and Dividend Yield ranges
- Credit Rating ratio tolerances
- Cashflow profiles

We have addressed the impact of 100% capitalisation of repex (which defers £22m of cash p.a. from current levels) through amending our depreciation rates. We have chosen to adjust regulatory asset lives to ensure the amount of depreciation provides the required level of cashflow on an enduring basis rather than adopting transitional arrangements for the capitalisation of repex. Therefore, our plan is based on depreciating our regulatory asset value (RAV) over **38 years**.

Finally, in order to deliver a return on equity that moves us closer to the level indicated by Ofgem in its March 2011 strategy document (i.e. 12% for a good performing network), we are proposing the following:-

- A sharing factor of 70% of out / under performance; and
- Additional incentives

Based on the above, the table below summarises the package put forward in this Business Plan

Parameter	Current Price Control (GDPCR1)	Ofgem March Decision Document	SGN Business Plan Proposal	Comments
Weighted Average Cost of Capital (post tax real)	**4.34%**	**3.6% - 4.2%**	**4.6%**	
Cost of Equity (real post tax)	7.25%	6% - 7.2%	7.50%	
Cost of Debt (real)	3.55%	iBoxx Index	iBoxx Index	
Premium/Margin to 10 year trailing average	+30 bps within COD		+60 bps onto index	
Allowed gearing	62.5%	GDNs to propose	62.5%	
Cashflows before financing	To support investment grade rating	Efficient companies should be able to finance their businesses	To support A / BBB rating	
Capitalisation of Repex	50%	100%	100%	
Fast / Slow Money	54% / 46%	GDNs to propose	36% / 64%	
Asset lives (years)				
Pre 2002 Assets	56	56	56	
Post 2002 Assets	45	45	38	
Post 2013 Assets	N/A	45	38	
Depreciation				
Pre 2002 Assets	Sum of Digits			
Post 2002 Assets	Straight Line	Sum of Digits	Sum of Digits	
Post 2013 Assets	N/A			
Backdated Depreciation	N/A	For 2002 - 2013 assets	For 2002 - 2013 assets	£95m for the period – to be phased over GD1
IQI Sharing	100% Opex / 33% Investment	50-60% on Totex	Weighted average of 70%	This is achieved with Work Management, ODA, Business Support, Gas Holder Removal, Land Remediation and Non Operational Capex all at 100%
True ups from GDPCR1	N/A	Efficient Pension Overspends	Efficient Pension Overspends of £24m	£24m additional pension deficit payments in GDPCR1 – recovered over 8 years
		Fuel Poor Costs	Fuel Poor Costs of £10m	£10m to be recovered through RAV
Tax	GDN Specific Tax Allowances	GDN Specific Tax Allowances	GDN Specific Tax Allowances	
	Tax losses rolled forward	Tax losses rolled forward	Tax losses to accrue only from post tax regime of 2007/8	

Cost to Customers

A final key component to us in our financeability assessment is the impact on customer bills. We charge gas shippers for using our network to transport gas. They in turn charge suppliers who then incorporate these costs in the prices they charge customers. Our charges make up around 15% of the average household gas bill. We recognise energy costs are rising and in developing this Business Plan we have been conscious of the need to deliver excellent value for money. We believe the improvements we plan to deliver will result in an average annual increase (excluding the impact of changing tax rules and true ups from the current price control) of around 1p per day for the typical household.

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