

Gas  
Transmission

# Gas Transmission Playback Consultation Webinar

13th February 2019

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# Who are we?



**Tony Nixon**

Head of Gas  
Transmission Regulation



**Jenny Pemberton**

Stakeholder Engagement  
Manager

# Logistics



Should last for approximately an hour



Polling via webex



Your questions are welcomed throughout via chat function



All callers will be placed on mute

# Agenda for today

01 – Who we are and what we do

03 – Overview of the consultation

04 – Stakeholder Priorities

05 – Summary

06 - Questions

# Quick Poll – Getting to know you

1. Please tell us your name

2. Which of the following best describes you / your organisation?

3. On a scale of A to E, where A is know nothing and E is know a great deal, how much would you say you know about National Grid Gas Transmission's operational activities?

- A. Know nothing
- B.
- C.
- D.
- E. Know a great deal

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# Who we are and what we do

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# National Grid Gas Transmission – the network

## Our role

To connect millions of people to the energy they use safely, reliably and efficiently

## We own & operate

7,660km of high pressure pipelines, 24 compressor stations and over 600 above ground installations

## We transport

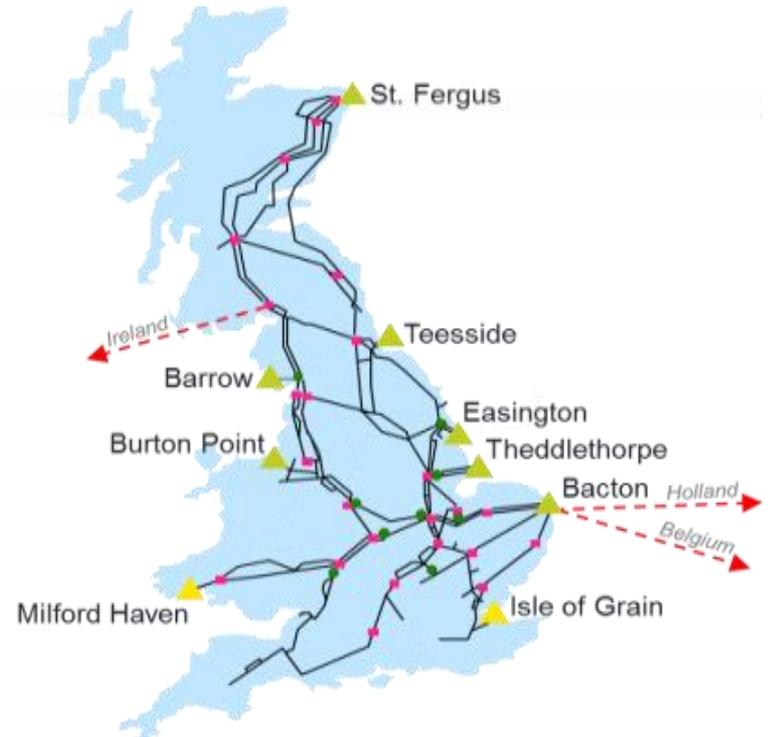
Over 3 times the energy provided by electricity each year

810 TWh

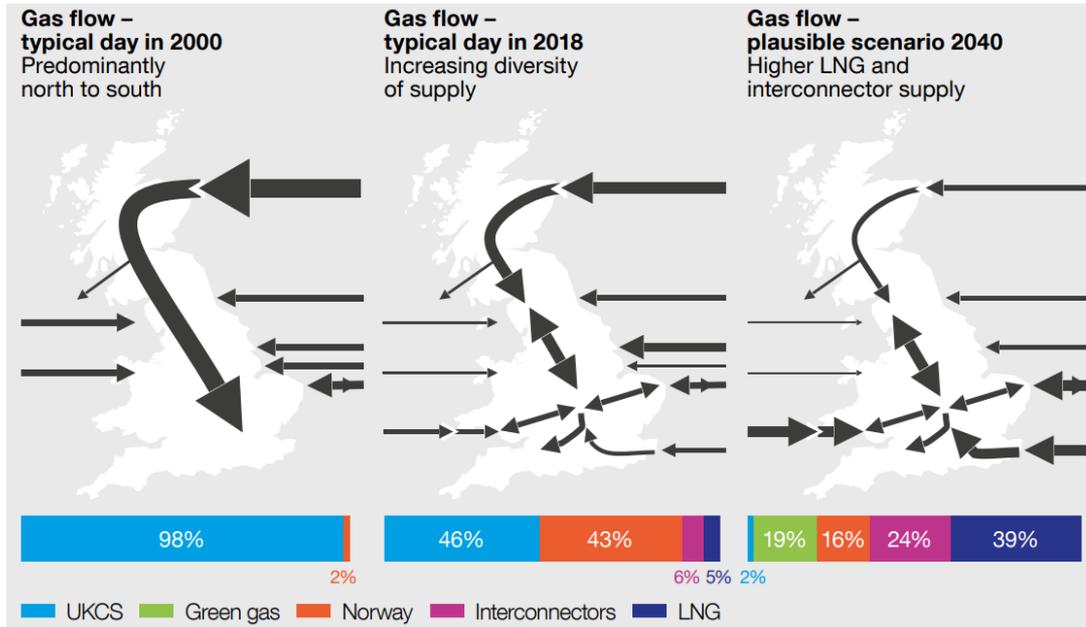
2017: Total gas demand

297 TWh

2017: Total electricity demand



# Changing gas flow and our planning assumptions



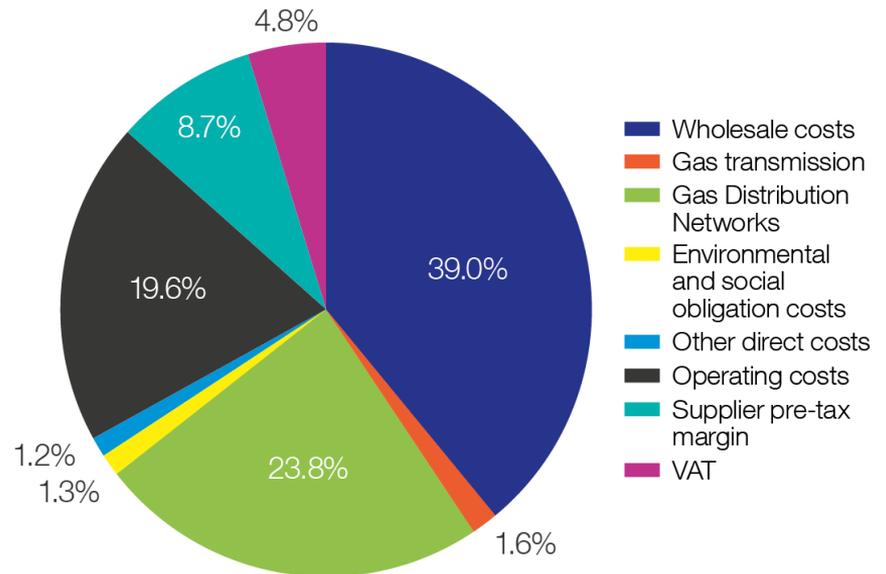
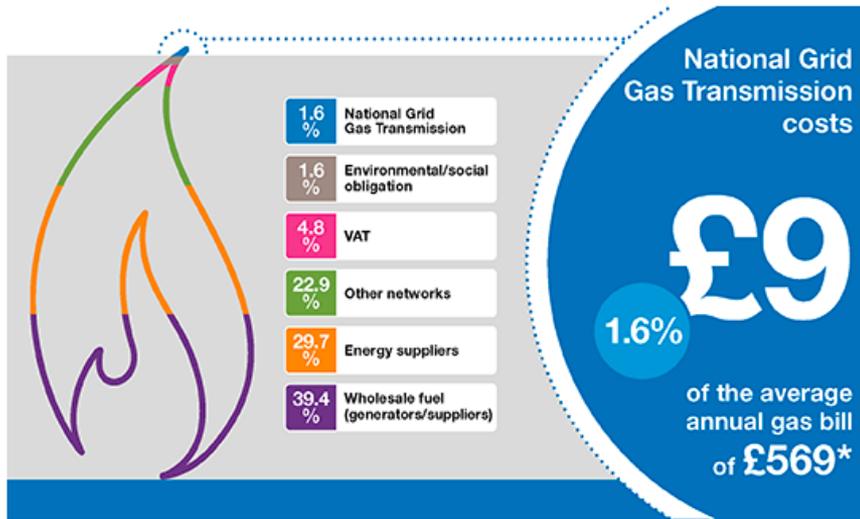
## Initial planning assumptions

**GT Network – future:** Most of our stakeholders tell us that there is a long-term future for gas and the GT Network to at least 2045. However, there is uncertainty about how customers will use the system in the future.

**GT Network – value to society:** For example, supporting decarbonisation by flexing with gas-fired power stations to balance intermittent renewables. We consider the wider impact on society in our plans and we are supporting research in this area.

**Keeping options open:** The network is playing an important role in facilitating decarbonisation. We should maintain a GT Network, for minimal cost, which keeps our options open because the future for decarbonisation is uncertain.

# Our impact on a domestic consumer bill



We also have the potential to influence other aspects of the bill through the services we deliver

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# Our Consumer and Stakeholder Priorities

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Running on 100%  
Clean Natural Gas

# Gas Transmission Stakeholder Priorities

Industrial and Domestic consumer priorities ...

I want an affordable energy bill

I want to use energy as and when I want

I want you to minimise disruption to my life

...are delivered through our stakeholder priorities...

I want to take gas on and off the Transmission system where and when I want

I want all the information I need to run my business, and to understand what you do and why

I want to connect to the Transmission System

I want the gas system to be safe

I want you to protect the Transmission system from cyber and external threats

I want you to care for communities and the environment

I want you to facilitate the whole energy system of the future – Innovating to meet the challenges ahead

I want you to be efficient and affordable

# Consultation overview



# Playback Consultation

A playback of stakeholder views to support our business plan activities between now and the first business plan draft in July 2019.

- Playback what we have heard through stakeholder engagement so far and signpost where stakeholder input has and will inform our plan.
- Opportunity for stakeholders to provide views on how all topics combine together as a whole.
- Show how what we have heard translates into broad financial ranges for RIIO-2 TOTEX signalling key drivers.

## Our Goal:

- To develop a truly stakeholder-led business plan.



# Playback consultation

## Structure



## Content

- **What is this priority about?**
- **What our stakeholders tell us**
- **Our activities & current performance**
- **Our direction of travel**
- **What it could cost**
- **Consultation Question**

## Quick poll

Have you read the playback document?

Yes

Some of it

No

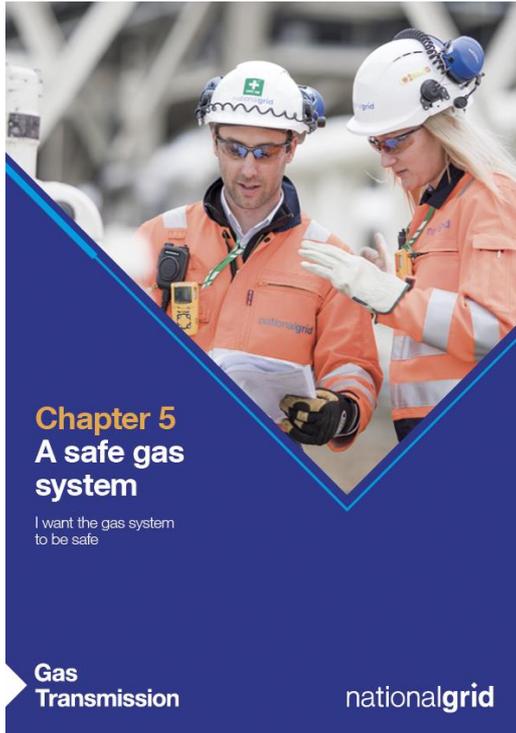
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# Key Stakeholder Priorities

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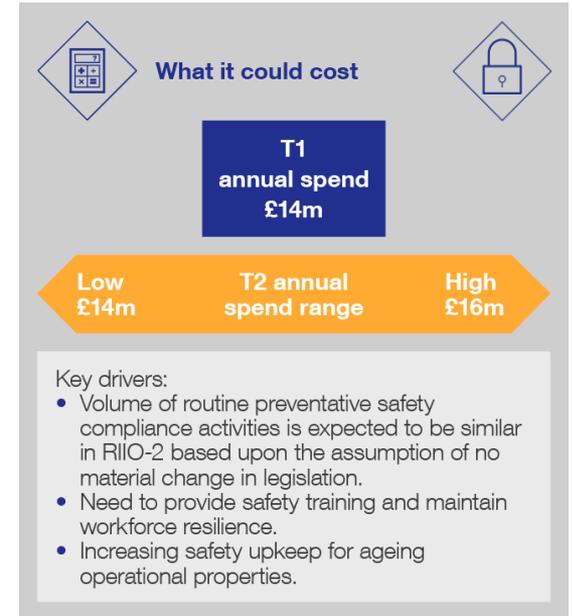
# I want the gas system to be safe



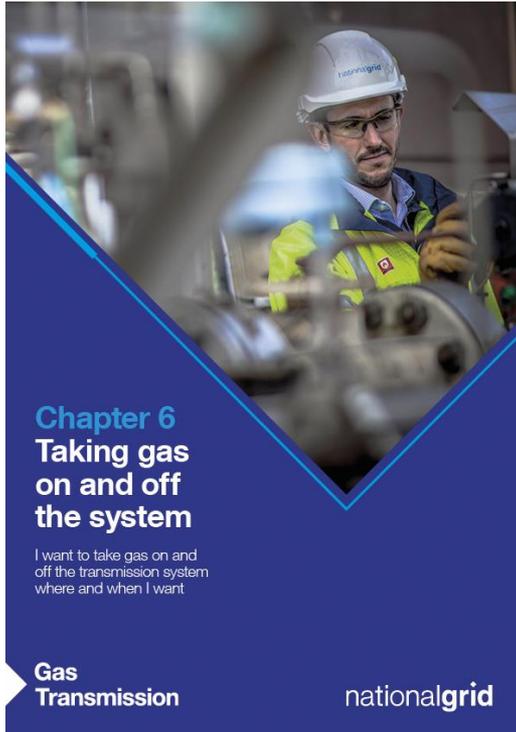
**Safety will always be our number one priority. Any major release of gas could pose a threat to life. By law we must manage our risks down to a level ‘as low as reasonably practical’.**

## **Consultation Question**

- What are your views on our direction of travel for safety?.



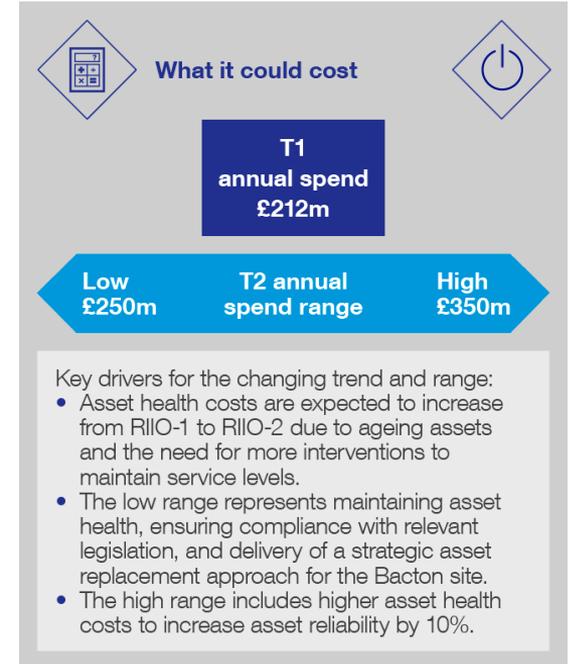
# I want to take gas on and off the transmission system where and when I want



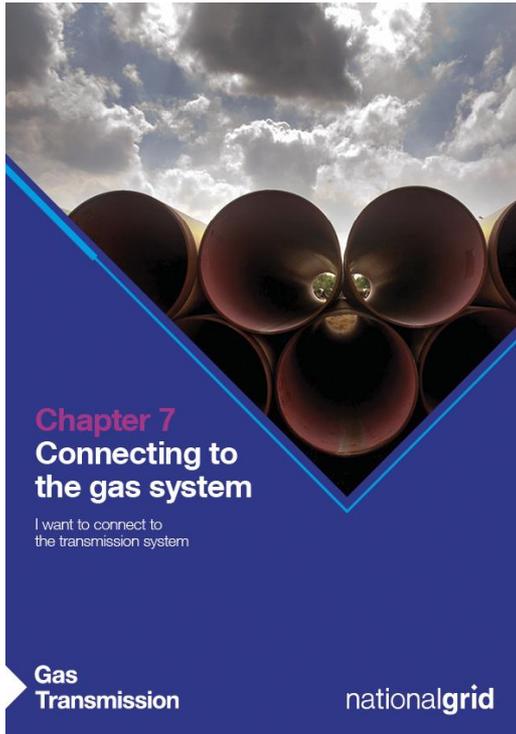
You've told us that Great Britain needs an efficient gas network that has the right capabilities for the future.

## Consultation Question

- An increased work programme to maintain the health of, and deliver the right capability from, the transmission network may be beneficial to keeping overall gas costs down for consumers. What are your views on this statement?



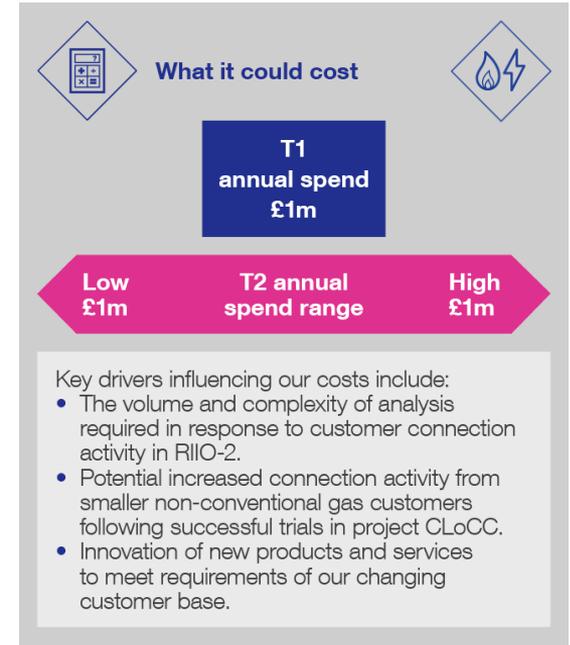
# I want to connect to the transmission system



**Managing connections to the gas national transmission system is an important role. It's essential for the competitive wholesale energy markets to work effectively.**

## Consultation Question

- What views do you have on how we could further improve our connections service?

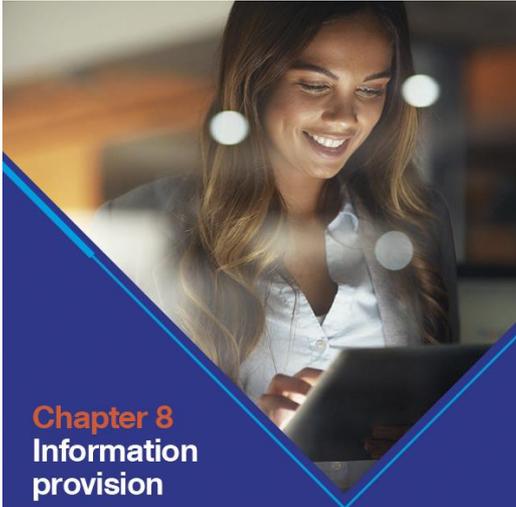


# I want all the information I need to run my business, and to understand what you do and why

Our information and insights provide value for consumers by ensuring that the gas market runs smoothly. It allows market participants to plan, prepare and operate effectively.

## Consultation Question

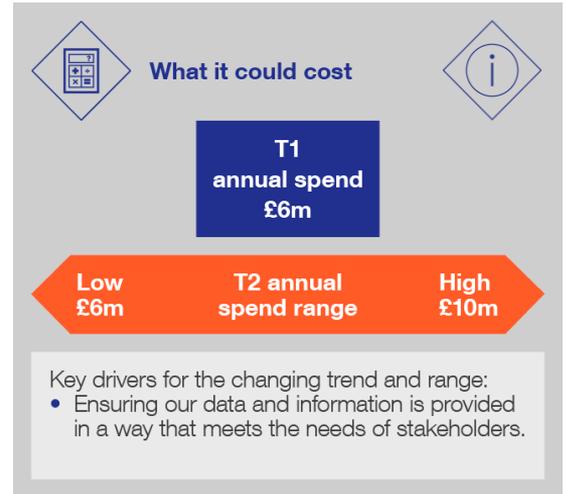
- What information could we provide that would increase benefits for our customers and consumers?



**Chapter 8**  
**Information provision**

I want all the information I need to run my business and to understand what you do and why

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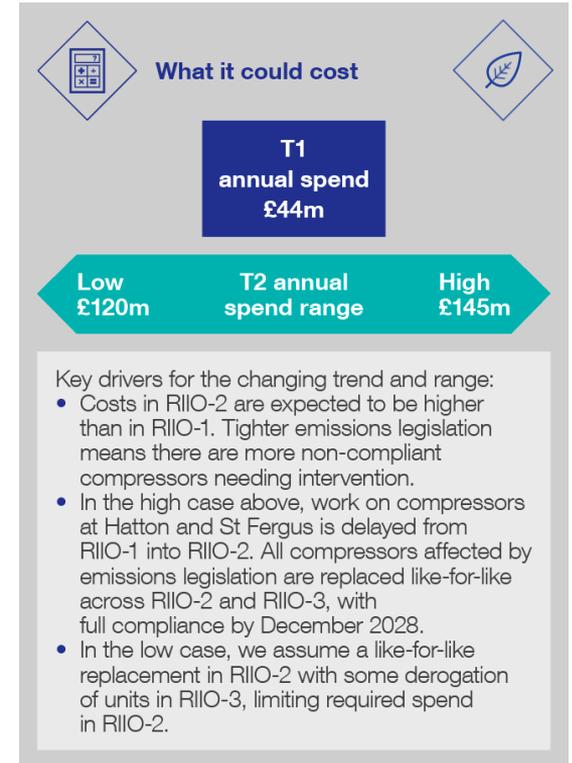
# I want you to care for the environment and communities



**National Grid has set ambitious group-wide targets for environmental sustainability. Such as an 80% reduction in our greenhouse gas emissions (from a 1990 baseline) by 2050.**

## Consultation Question

- To what extent should we be more proactive in reducing our overall impact on the environment?

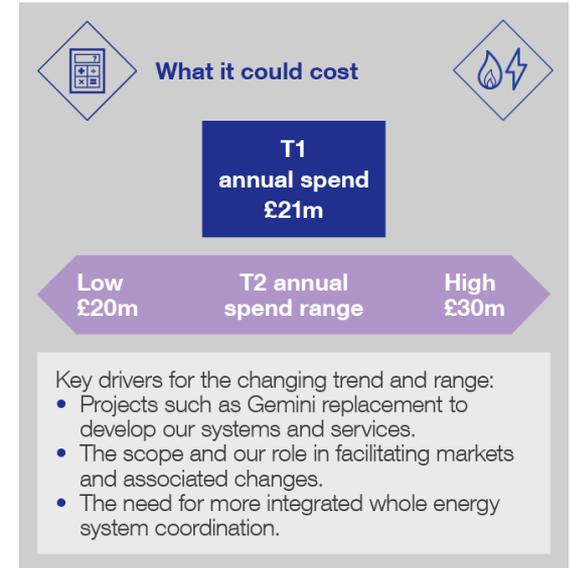
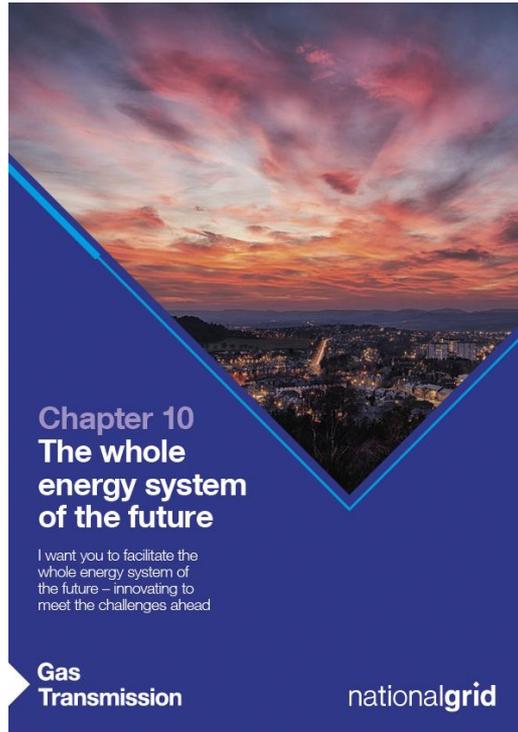


# I want you to facilitate the whole energy system of the future – innovating to meet the challenges ahead

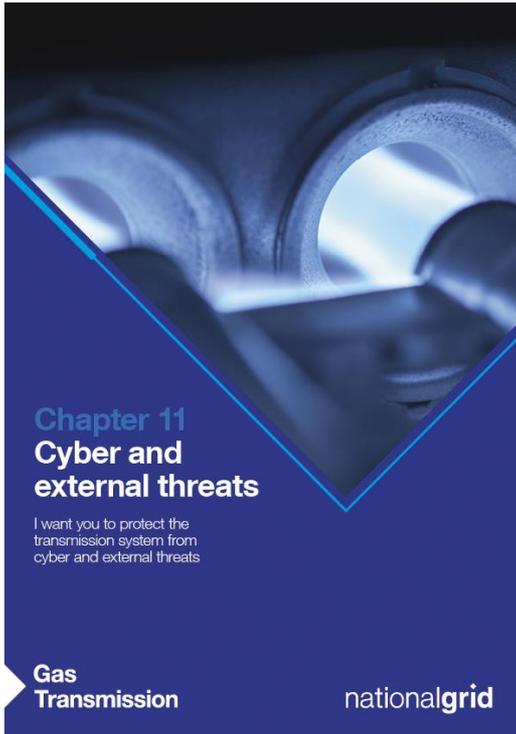
We support an integrated approach to creating the energy system of the future; optimising the way that gas, electricity, transmission and distribution work together.

## Consultation Question

- Where can we add most value through the RIIO-2 period to facilitate integrated energy systems of the future?



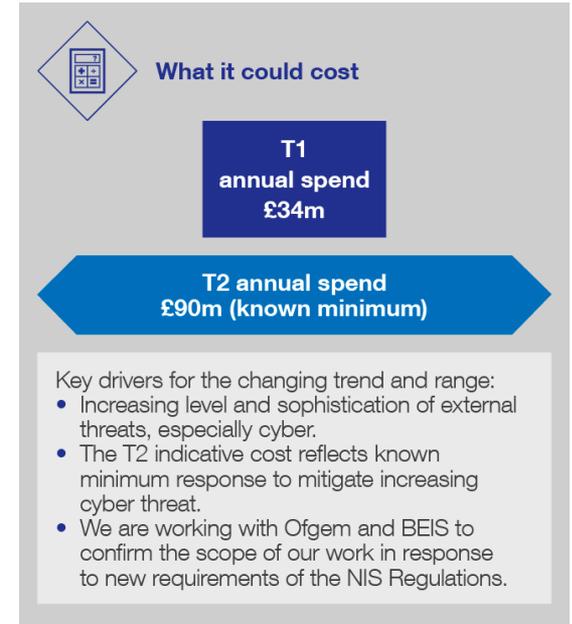
# I want you to protect the transmission system from cyber and external threats



Protecting the gas transmission system is vital. We operate Critical National Infrastructure classing us as an Operator of Essential Services.

## Consultation Question

- The detail of our cyber and physical security plans will be developed confidentially with Ofgem and the Government. How would you like to be kept updated?



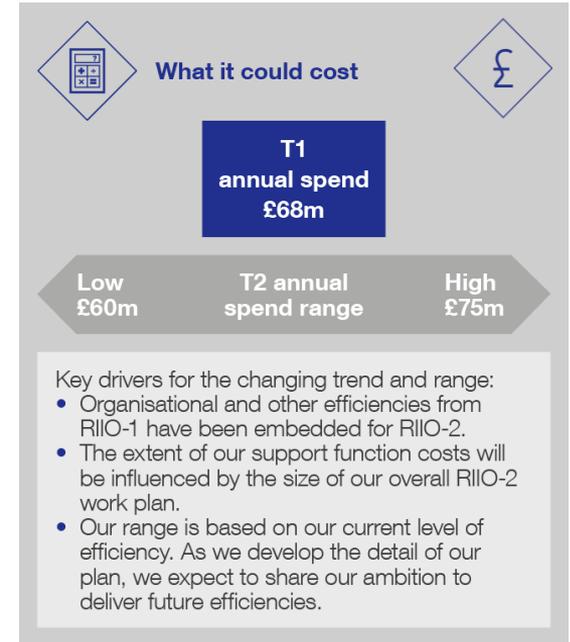
# I want you to be efficient and affordable



One of our key priorities is keeping energy affordable. We strive to keep our impact on domestic and industrial consumer bills low.

## Consultation Questions

- What are your views on the methods we have proposed to demonstrate efficiency and value for money in our plan?



## Quick poll

Do you have any views on our style of presentation of the business plan information (i.e. via the eight stakeholder priorities)?

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# Summary

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# Summary

To date discussion has been focused on outputs and preferences, as we move into 2019 we will transition to locking down preferences and discussing costs

## Indicative TOTEX expressed as annual spend to allow comparison with T1

<b>£250m to £350m</b>		<b>£120m to £145m</b>	<b>£90m (minimum)</b>
<b>Gas on and off the system</b> (RIIO-1: £212m)		<b>Communities and environment</b> (RIIO-1: £44m)	<b>External threats</b> (RIIO-1: £34m)
<b>£20m to £30m</b>	<b>£14m to £16m</b>	<b>£6m to £10m</b>	<b>£1m*</b>
<b>Whole energy system</b> (RIIO-1: £21m)	<b>Safety</b> (RIIO-1: £14m)	<b>Information provision</b> (RIIO-1: £6m)	<b>Connect to the system</b> (RIIO-1: £1m)
<b>£60m to £75m (business support) underpinned by an efficient and affordable plan (RIIO-1: £68m)</b>			

2017/18 price base

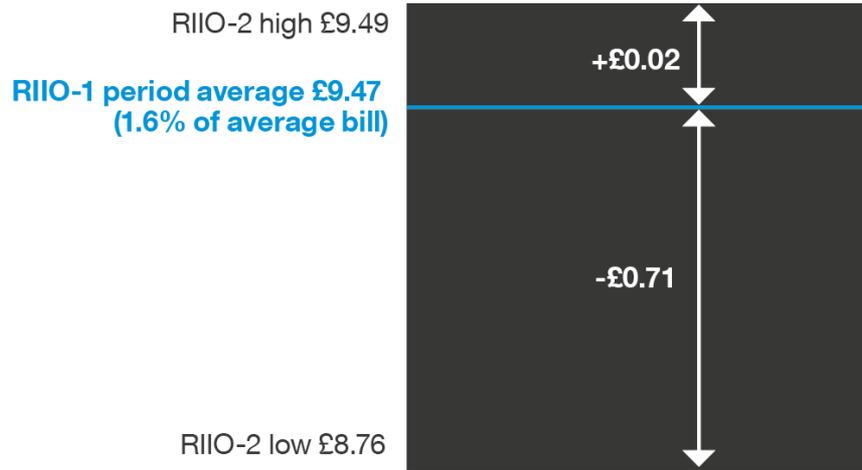
\*Approximate values

## Working with stakeholders to determine the type of network they need

- Defining the network capability needed to deliver for consumers
- Agree the volume of maintenance of our ageing asset base to ensure reliability for consumers
- Timing implications of compressor work to deliver on our environmental commitments
- Increasing level and sophistication of external threats, especially cyber
- Our role in facilitation of the gas industry change plan

# Impact on bill

As we develop our business plan, we will think hard about the potential impact on current and future bills.

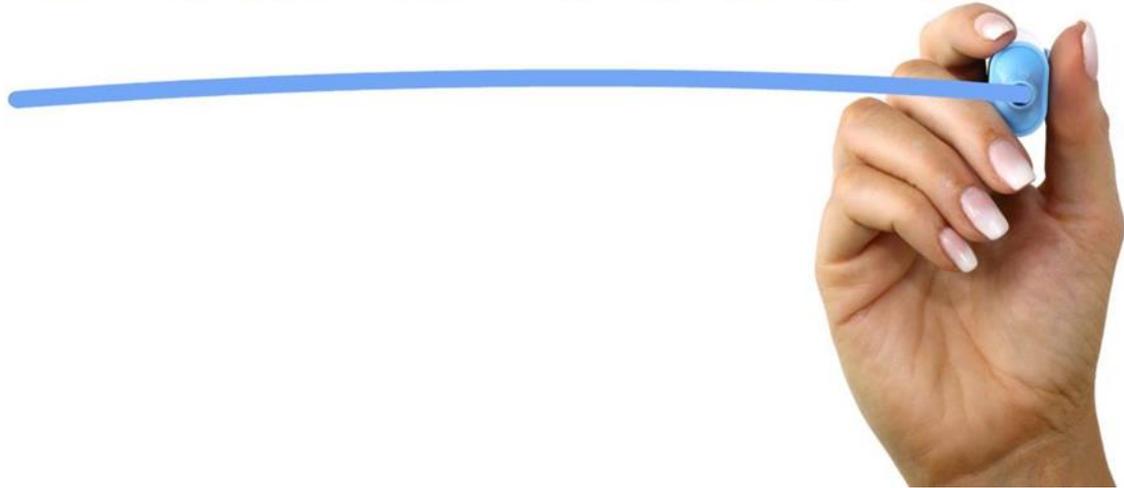


In this illustration we have not considered other factors that can have an impact on consumer bills such as cost of capital for RIIO-2 and future inflation. We calculate our consumer bill impact using Ofgem's consumer bill methodology.

Base revenue is increasing from T1 into T2, giving a higher Kwh unit cost in T2.

However household demand is set constant across T2 and at a level lower than the average across T1; which gives the lower bills across T2.

# QUESTIONS

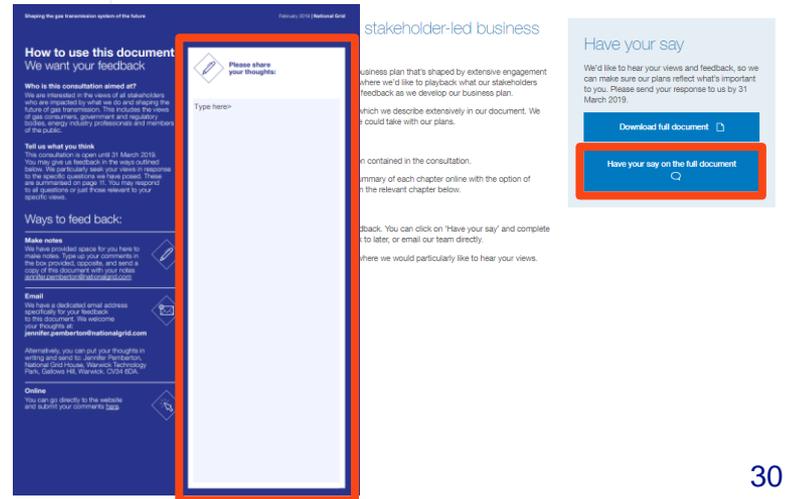
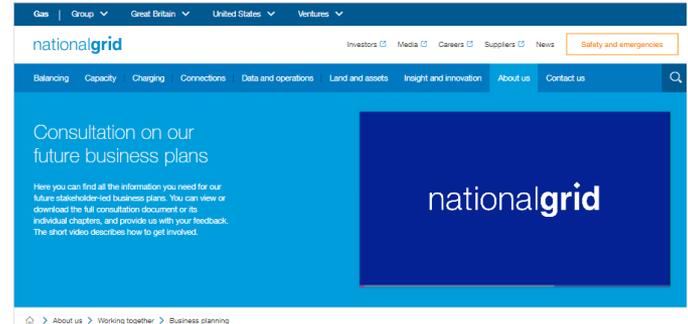


# There are many ways to get your voice heard

## On the entire document:

1. Via survey link:  
[https://nationalgrid.eu.qualtrics.com/jfe/form/SV\\_1O277aJUe4jMiMJ](https://nationalgrid.eu.qualtrics.com/jfe/form/SV_1O277aJUe4jMiMJ)
2. Add your comments to the pdf and email it to  
[Jennifer.Pemberton@nationalgrid.com](mailto:Jennifer.Pemberton@nationalgrid.com)
3. Email any comments directly to  
[Jennifer.Pemberton@nationalgrid.com](mailto:Jennifer.Pemberton@nationalgrid.com)

**Closing date: 31<sup>st</sup> March**



# There are many ways to get your voice heard

## On a specific chapter:

1. Via the chapter survey on the website
2. Via the chapter survey link within the pdf

**Closing date: 31<sup>st</sup> March**

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**What it could cost**

T1 annual spend £44m

Low £120m T2 annual spend range High £145m

Key drivers for the changing trend and range:

- Costs in RIIO-2 are expected to be higher than in RIIO-1. Tighter emissions legislation means there are more non-compliant compressors needing intervention.
- In the high case above, work on compressors at Hatton and St Fergus is delayed from RIIO-1 into RIIO-2. All compressors affected by emissions legislation are replaced like-for-like across RIIO-2 and RIIO-3, with full compliance by December 2025.
- In the low case, we assume a like-for-like replacement in RIIO-2 with some derogation of units in RIIO-3, limiting required spend in RIIO-2.

**Compressor assumptions:**

- To date, for individual compressors we have considered three options: building a new unit, using a 500-hour derogation, or decommissioning. In 2019, we will assess the suitability of innovation or abatement technology. We will carry out a full cost benefit analysis for each site. We will also explore the balance of commercial solutions and asset solutions to deliver the network capability our stakeholders need. We believe this is likely to reduce the overall costs for our compressor emissions compliance programme.
- The compressor costs in this chapter only cover costs driven by emissions compliance. Any other costs for compressors from other drivers (e.g. due to asset condition) are covered in the separate 'Gas on/off' chapter. This is because they are not driven by environmental legislation.

**We welcome your views:**

**Chapter:** Communities and environment

**Question:** 13: We must take action to curb our harmful environmental emissions in line with legal deadlines. To what extent should we be more proactive in reducing our overall impact on the environment? For example, reducing methane emissions or going beyond minimum legislative requirements.

**Submit your feedback online here:**

**Initial planning assumptions**  
Our starting assumptions include:  
**Supply and demand:** We assume supply and demand are in line with the *Future Energy Scenarios (FES) 2018*.  
**GT Network – access and capability:** We assume that the network is in its current form. We fully expect this assumption to change as we engage stakeholders on defining the network capabilities they require for RIIO-2 and through agreeing solutions with the environmental regulators.  
**Legislation:** We assume no material changes to legislation.

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Chapter 5: I want the gas system to be safe

Here, we look at the vital importance of safety on the gas transmission system. We set out our stakeholders' views and describe how we'll manage safety – now and in the future.

Have your say

We'd like to hear your views and feedback, so we can make sure our plans reflect what's important to you. Please send your response to us by 31 March 2019.

Download this chapter

Download full document

Have your say on this chapter

Our stakeholders' views on safety

Our safety activities and performance

How we'll manage safety in the future

What it could cost

Have your say on this chapter

What are your views on our direction of travel for safety?

Have your say

## Quick poll

How would you like to engage with us going forward as we build our business plan for the RIIO-2 period?

Webinars

Through existing  
forums

Targeted  
Workshops

Newsletter

1-1's

Surveys

Other – please  
specify

# Heads up

- Ofgem sector specific consultation closes Thu 14<sup>th</sup> March:  
<https://www.ofgem.gov.uk/publications-and-updates/riio-2-sector-specific-methodology-consultation>

- Network Capability Webinar

- Tue 19<sup>th</sup> Feb

To register for these please contact  
[Jennifer.Pemberton@Nationalgrid.com](mailto:Jennifer.Pemberton@Nationalgrid.com)

- Shaping the South East Network

- Introductory Webinar: Wed 20<sup>th</sup> Feb
- Workshop: Thu 7<sup>th</sup> March

- Shaping the Bacton Strategy

- Detailed costings webinar: Thu 28<sup>th</sup> Mar

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# RIIO Framework

What does it mean?

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# What is RIIO?



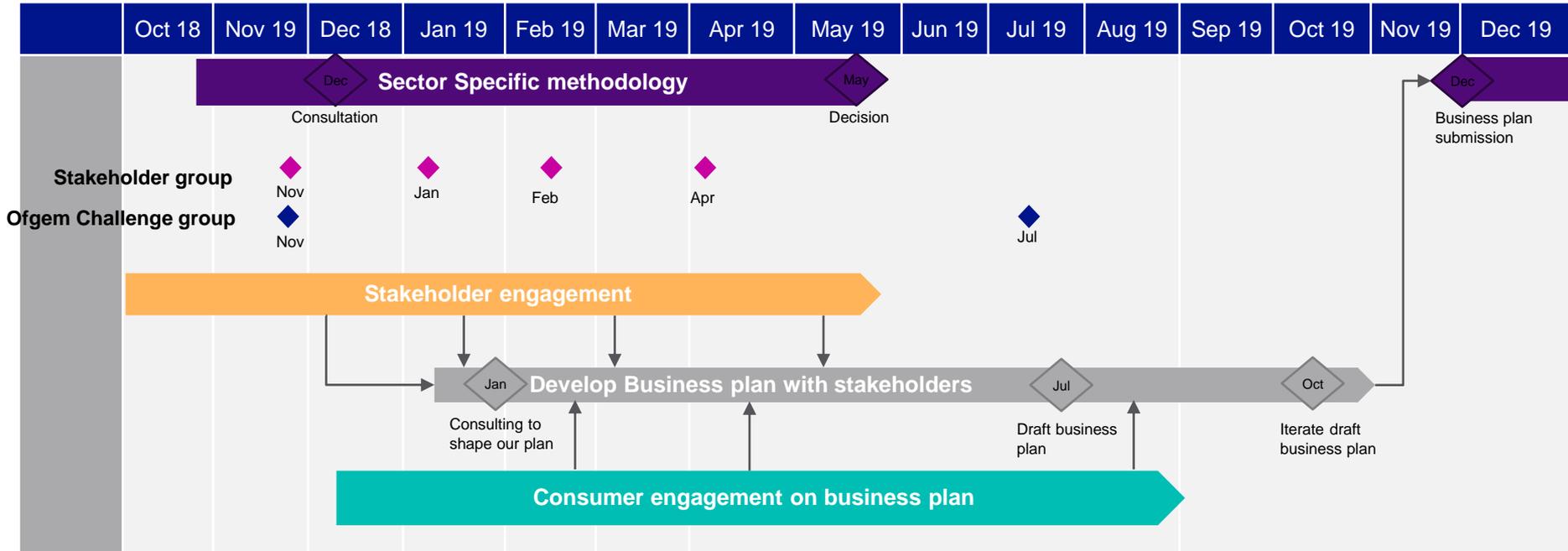
# Constructive Engagement



# Constructive Engagement



# Timeline – Business plan consultation





Thank You

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