



# Appendices

Glossary  
Assumptions

# Glossary

Term	Definition
AGI	Above-Ground Installation.
ALARP	As Low as Reasonably Practical – a goal-seeking principle often used in health and safety legislation.
BEIS	Department for Business, Energy and Industrial Strategy.
Capex	Abbreviation for Capital Expenditure; for example, investment in building new transmission assets.
CLoCC	Customer Low Cost Connections. A project seeking to improve the experience of small and medium-sized customers (like biomethane producers) connecting to the gas transmission system.
CNI	Critical National Infrastructure.
CO	Carbon Monoxide.
COMAH	Control of Major Accident Hazard Regulations.
Consumer	All consumers connected to the Great Britain gas pipeline network, including domestic households, business and industrial users, and gas-fuelled power stations.
CPNI	Centre for the Protection of National Infrastructure.
Customer	Our customers are the people or entities who pay us for the products and services we provide e.g. Gas Distribution Networks, Shippers and directly-connected customers such as gas storage sites and gas-fuelled power stations.
ENA	Energy Networks Association.
FES	Future Energy Scenarios, a set of credible future energy pathways produced each year by National Grid.
GDN	Gas Distribution Network.
GMaP	Gas Markets Plan.
GNCC	Gas National Control Centre.
GT	Gas Transmission.
HSE	Health and Safety Executive.
LNG	Liquefied natural gas.
NCSC	National Cyber Security Centre.
NGGT	National Grid Gas Transmission.
NIS Regulations	Network and Information Systems Regulations 2018 – putting into UK law the requirements of an EU Directive aiming to improve preparedness for a cyber-attack.
NOx	Nitrogen Oxide gases that impact air pollution.
NTS	Gas National Transmission System.
OES	Operators of Essential Services as defined pursuant to the NIS Regulations.
Opex	Abbreviation for operating expenditure, for example expenditure on routine maintenance of existing assets.

Term	Definition
PSUP	Physical Security Upgrade Programme. A national programme initiated by the Secretary of State and now governed by BEIS. Its role is to deliver physical security upgrade solutions to critical sites.
Re-opener	A mechanism used in RIIO-1 to adjust allowed revenue part way through the period in light of new information or circumstances.
RIIO-1, RIIO-2	The first and second applicable periods for regulating network companies by a method known as Revenue = Incentives + Innovation + Outputs. For transmission companies the second period begins on 1 April 2021.
Stakeholders	Customers, consumers and other parties affected by our activities. Includes government and non-government organisations, regulatory bodies, consumer groups, academics and other interested parties.
T1, T2	Abbreviations for the first and second RIIO periods applicable to transmission companies
Totex	Abbreviation for total expenditure including operating expenditure (opex) and capital expenditure (capex).
UKCS	United Kingdom Continental Shelf.
UNC	Unified Network Code.

# Assumptions

Topic	Initial planning assumption	Comment/next steps
GT Network – Future	Our view, shared by most stakeholders, is that there is a long-term future for gas and the GT Network to at least 2045.	This assumption is informed by the Future of Gas project and other internal analysis and external commentary. See Chapter 2 – Context.
GT Network – Access and capability	There is uncertainty over how customers will use the system in future, particularly the timing and location of where gas comes on and off the system. An appropriate balance needs to be struck between competing priorities of a low-cost network and customers' ability to move gas on and off the system unconstrained. See Chapter 6 – Gas on/off.	The physical size of our network and the commercial framework affects our ability to offer relatively unconstrained flow of gas over a wide and variable range of supply patterns. We will explore stakeholders' views on the costs and consequences of other options. This might include decommissioning certain assets, adding resilience elsewhere or exploring market-based solutions.
GT Network – Pipelines & AGI	Customer requirements in RIIO-2 are unlikely to alter the size of our core network in terms of pipeline route km and number of above-ground installations.	This expectation drives a base level of activity such as pipeline in line inspections and surveillance for third-party interference. See Chapter 5 – Safety.
GT Network – Compressors	We will need a programme of work on our gas compressors during RIIO-2 and beyond to comply with mandatory emissions legislation deadlines.	We will develop a strategy with input from our stakeholders and considering the potential future patterns of use of the network. See Chapter 9 – Environment.
GT Network – Value to society	The GT Network provides wider benefits to society. For example, it supports decarbonisation by flexing with gas-fired power stations to balance intermittent renewables. We should factor in these wider benefits when planning the development of the network.	We will undertake academic research to quantify the wider societal value of the GT Network including support for competitive wholesale gas and electricity markets. See Chapter 2 – Context.
Keeping options open	The GT Network is playing an important role in supporting decarbonisation. We should preserve a GT Network that keeps options open as insurance amid uncertainty about the way ahead for decarbonisation.	To expand the evidence base informing decisions, we will undertake external analysis on the value of the GT Network in enabling energy prices to remain affordable. See Chapter 2 – Context.
Supply and demand	We will anchor our analysis of network capability using the supply and demand scenarios and sensitivities in the Future Energy Scenarios 2018.	We will explain how we have used FES and which areas of our plan are impacted or not by uncertainty over future pathways.

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Ageing assets	We should target an appropriate level of asset health investment to mitigate the reliability risks from an ageing asset base.	We are using improved decision support tools and monetised risk modelling. We intend to consult stakeholders on the costs and consequences of different targets for service risk. E.g. keep the same or improve reliability by 10%.
Number of connections	Our initial assumption is that we can flex resources to process a variable number of customer connection needs that might arise in the period.	There is uncertainty about the level of customer activity that will come forward, for example from new entrants developing green gas schemes.
Incremental capacity	No 'anticipatory' incremental network investment would be included in our baseline plan, ahead of firm customer commitment (as at today's date there are no such firm commitments).	We propose that a revenue adjustment mechanism be included. If triggered our allowed revenue could be adjusted appropriately. See Chapter 7 – Connections.
Legislation	We assume no material changes in key industry legislation and best practice for compliance, including safety (COMAH, GS(M)R etc.), environmental (MCPD) and cyber (NIS Regulation).	Such key legislation drives our level of activity and costs, particularly in areas of safety Chapter 5, environment Chapter 9 and cyber Chapter 11.
External threats	We shall protect the system from cyber and physical threats in line with government requirements. The level of threat is per today's security services classification: threat from international terrorism = SEVERE, cyber threat as per 2017/18 NCSC guidance.	The level of work required in RIIO-2 could be higher if the threat changes or the interpretation of required mitigations changes. See Chapter 11 – External threats.
Physical security	The sites at which enhanced physical security measures are required remain as prescribed by BEIS.	Government and security services' advice will be reviewed and changed periodically. See Chapter 11 – External threats.
Market information	The information we provide to the market will continue to play a crucial role in the healthy running of the wholesale energy markets.	We will explore with stakeholders the type of information that is most valuable in making sure the wholesale gas and electricity markets run in the optimal way. See Chapter 8 – Information provision.
Network emergency coordination	National Grid continues to perform the role of Network Emergency Coordinator.	The costs for the NEC role will be factored into our RIIO-2 plan.
Finance parameters	Finance parameters (cost of debt, inflation indices etc.) have not yet been determined for RIIO-2. These parameters, together with our spending plans, will both influence the component of our costs which translates into future consumer bills.	These finance parameters will be reviewed with Ofgem during 2019 and we will update our assumptions accordingly for our draft business plan.

# Assumptions

Topic	Initial planning assumption	Comment/next steps
Brexit	The form of Brexit has a neutral impact on our activities and costs.	There are uncertainties about our post-Brexit trading arrangements that could impact RIIO-2 activity, such as industry code change workload.
Price control allowed revenue	Where the scope of our RIIO-2 work is clear and we are best-placed to manage risks on behalf of consumers, we assume funding will be included in our baseline price control allowed revenue.	This principle represents established practice under the existing RIIO framework. National Grid is incentivised to manage efficient delivery on behalf of consumers.
Uncertainty mechanisms	In-period adjustment mechanisms would be appropriate to cope with changes in workload triggered by events outside our control. This might include incremental capacity requirements triggered by customers, and government response to security threats.	We think this is better for consumers than attempting to include uncertain work into the price control allowance. Various uncertainty mechanisms have been used in RIIO-1. We will develop further thinking on the detail to include in our draft business plan.
Mapping costs to stakeholder priorities	Costs are mapped to stakeholder priorities based on strongest relationship. This is the first time we have categorised cost data in this way to improve transparency of how costs relate to stakeholder priorities.	Some activities have at least secondary relevance for multiple priorities. We seek stakeholder views on whether this portrayal helps you to understand our plan.
Efficiencies	The efficiencies we have achieved throughout RIIO-1 will form the basis of our costs in RIIO-2.	We will work towards committing to additional efficiencies during the RIIO-2 period that we believe we can achieve when we submit our final business plan.