Energy Networks Association Response to Ofgem's RIIO2 Sector Specific Methodology Consultation

1. Introduction

1.1 Energy Networks Association (ENA) represents the companies that operate and maintain the gas and electricity grid network in the UK and Ireland. Serving over 30 million customers, they are responsible for the transmission and distribution network of 'wires and pipes' that keep our lights on, our homes warm and our businesses running.

1.2 Understanding the strong track record of our energy networks since privatisation in 1990 in improving services and lowering costs is key to understanding the role that they can play in the future. Continued high quality and efficiently delivered energy networks services are essential for both consumers and to help the government meet its short, medium and long-term objectives for energy policy.

1.3 Our energy networks are recognised around the world for their strong track record of safely and securely providing the UK with the heat and power it needs in three key areas.

i. *Trusted performance.* The average gas customer will experience an unplanned interruption once every 140 years. For electricity customers, since 1990, there has been a 50% reduction in number of customer interruptions, and a 60% reduction in length of customer interruptions.

ii. *Reduced costs* and *increased investment.* Network costs are now 17% lower than they were at the time of privatisation and are projected to remain flat, and in some areas fall, into the next decade. By 2020, the UK's energy networks will have attracted some £80 billion of investment since 1990. A significant proportion of which is spent with UK companies. New investment in the networks is forecast at £45bn between 2017 and 2023.

iii. *Strong innovation.* Independent research carried out by Pöyry for Ofgem has shown that innovation projects by electricity Distribution Network Operators (DNOs) could deliver up to £1.7bn of benefits by 2031. Additional benefits will also flow from the innovation undertaken in the other network sectors which was not quantified by Pöyry's last study but was acknowledged.

1.4 We welcome the opportunity to respond to the RIIO2 Sector Specific Methodology Consultation on behalf of our members, and value the ongoing direct discussions taking place between ENA, the regulator, the Consumer Engagement Groups and the Consumer Challenge Group. This level of engagement that networks are undertaking builds upon and goes further than previous price controls and is unprecedented in terms of regulated energy networks.

1.5 This response sets out a collective view of some key common principles, detailed insights and areas of focus for ENA representing the gas and electricity networks industry. Our members operate long-term asset businesses so it is clear to them that meeting consumer

needs and enabling government policy is at the heart of how they succeed.
They consider that this needs to be facilitated by the RIIO2 framework. This response sets out those areas where there is broad agreement between members. We have aligned our response below to the sections of the consultation document for ease of your consideration, but have not responded to specific questions raised in the consultations documents.

2. Context

2.1 The UK faces a number of uncertainties and challenges over the period of the next price controls for gas and electricity networks during which decarbonisation of energy continues to take place. These are many and include potential impacts of leaving the EU and the continued need to create the conditions for a robust and growing economy that enables opportunities to be captured and exploited fully for the benefit of all, including vulnerable consumers. The RIIO2 price controls and the decisions made on them by the regulator will have a major influence on our future energy system and the wider economy that it serves. RIIO2 should not therefore be considered in isolation but in this wider context and explicitly recognised as part of a wider strategy for delivering investment, decarbonisation and meeting consumer needs.

Networks are a major cornerstone of our future strategy

2.2 The government's Industrial Strategy[1] recognises these many challenges and opportunities and sets out a strategic framework together with a range of initiatives designed to boost productivity by backing businesses to create good jobs and increase the earning power of people throughout the UK with investment in skills, industries and infrastructure. Achieving clean growth, while ensuring an affordable energy supply for businesses and consumers, is at the heart of the UK's Industrial Strategy. Implementing the strategy will increase our productivity, create good jobs, boost earning power for people right across the country, and help protect the climate and environment upon which we and future generations depend.

2.3 The government's Clean Growth Strategy[2] sets out ambitious proposals through the 2020s that seek to ensure economic prosperity while cutting greenhouse gas emissions. The UK has been at the forefront of encouraging the world to move towards clean growth. The strategy rightly recognises the need for growth to be clean and commits to ensuring that the UK is able to continue the move towards a less carbon-reliant economy with the adoption of 'clean' technologies across the economy. In doing so it seeks to maximise the advantages to UK industry from the global shift to clean growth, by leading the world in the development, manufacture and application of low carbon technologies, systems and services that cost less than conventional high-carbon investments. This ensures the UK has a strong leadership platform to develop new markets in areas such as smart energy systems, including whole energy systems solutions.

2.4 UK leadership across a number of priority areas is a key aspect of the strategy, and central to the success and realisation of the government's objectives. **One such priority area is the**

[1] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/664563/industrial-strategy-white-paper-web-ready-version.pdf
[2] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/700496/clean-growth-strategy-correction-april-2018.pdf

development of smart systems for cheap and clean energy across power, heating and transport.

Protecting vulnerable consumers

2.5 Britain's energy networks have an excellent track record of customer service and provide additional support for those members of the public who may struggle with energy bills or be more vulnerable in the case of an incident. Our members welcome the focus on vulnerable households under RIIO2 and believe they are uniquely placed to continue to deliver real benefits to this group of consumers.

2.6 More than six million people are enlisted on the Priority Services Register (PSR), a free service run by DNOs for customers in need. Services under the PSR include advance notice of planned power cuts, priority support from DNOs in an emergency, alternative heating and cooking facilities, keeping friends and relatives updated, and in certain scenarios free hotel overnight stays with transport to and from accommodation included. Meanwhile, GDNs have worked with DNOs to store and share data across the energy sector. Through the Fuel Poor Network Extension Scheme (FPNES) GDNs are also helping fuel poor households to access cheaper energy, having connected 64,100 households since the start of the RIIO1 period[3].

Delivering a smart low-carbon whole energy system

2.7 Smart systems transform our ability to use clean energy cost effectively, and will therefore be in high demand globally. The GB network companies are at the forefront of the smart transformation that is already well underway and gathering pace. The changes to the way in which we design, build and operate our gas and electricity networks will support and enable the introduction, development and scaling up of low-carbon technologies and systems that will deliver reliable and affordable low-carbon energy to our homes and businesses.

2.8 The government's Smart Systems and Flexibility Plan[4] recognises the world leading capability of our energy networks and the benefits that are already being realised through the transition to a smarter, more flexible network. Building on this, stakeholders across all areas of energy production, transportation, supply and consumption are driving forward new and innovative initiatives to deliver the continued transformation of our energy system.

2.9 Our members believe the greatest efficiencies in delivering a secure, low-carbon sustainable energy system will be realised through the adoption of a so-called 'whole system' approach. For us a whole system approach means looking at optimal network investment and operational decisions for the whole energy network (such as across the traditional distribution-transmission divide), not just the individual parts in isolation. It also means considering interactions across energy vectors (e.g. heat networks, power, energy storage and transportation) so that wider options and consumer value can be taken into account.

2.10 **It is essential that the regulatory framework supports these government and consumer goals. Ofgem's current RIIO2 proposals do not do this adequately. Ofgem is failing to strike the right balance that meets all stakeholders' needs.**

[3] https://www.ofgem.gov.uk/system/files/docs/2019/03/riio-gd1_annual_report_2017-18_0.pdf
[4] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/633442/upgrading-our-energy-system-july-2017.pdf

2.11 Energy networks are the arteries of our economy and their defining characteristics of world-leading levels of safety, reliability, efficiency and carbon reduction, with a strong consumer focus, must be maintained if we are to achieve the ambition, and realise the opportunities and benefits (including the creation of new industries, jobs and growth), set out in the government's industrial and clean growth strategies.

RIIO2 and putting achievement of our objectives at risk

2.12 Setting the right regulatory framework for networks is key. Failure to 'get it right' will result in significant impacts on our energy networks, the wider energy system and society at large. The wrong framework risks reducing, slowing or losing altogether opportunities for:

- decarbonisation of the economy
- increased productivity
- meeting the essential needs of households, including vulnerable households
- creation of new high value jobs, industries and companies
- technological innovation
- wider social and economic benefits that result, for example, in cleaner air through the rollout of green gas and electric vehicles.

2.13 There is a clear need to ensure that levels of private sector investment in our networks continue to remain sufficient for networks to play the fullest role in delivering the government's policies that will help secure our future. **We believe that the current proposals for RIIO2 set out in this consultation if implemented will have significant and damaging impacts on these sectors and their ability to support and facilitate the government's initiatives and objectives for clean growth and the wider economy.**

2.14 These risks are an unnecessary result of Ofgem's failure to take into account the wider strategic context and the regulator's almost exclusive focus on short-term reductions to consumer bills and reducing networks returns significantly below 'fair' levels. **This misguided and short-term approach will not deliver the regulatory 'sweet spot' that strikes the right balance between attracting necessary levels of investment and ensuring that consumers are not overcharged**. **The risks created by pursuing the current RIIO2 proposals are therefore significant, wide-ranging and extremely damaging. Their negative impacts will be felt for decades with the costs borne by future consumer far outweighing any short-term benefit to current consumers – itself uncertain.**

2.15 In the rest of our response, we set out our concerns with the proposed approach. The issues are set out in more detail under the relevant section of this response and in our members' individual responses to the consultation. We have also included a substantial body of evidence from independent authoritative subject matter experts, including KPMG, Oxera, NERA and Frontier Economics, whose conclusions have been instrumental in guiding us to the view that these proposals need to be substantially rethought (see Annex).

Key Points

We believe that the current proposals for RIIO2 set out in this consultation, if implemented, will have significant and damaging impacts on these sectors and their ability to best support and facilitate the government's initiatives and objectives for clean growth and the wider economy. They will result in future consumers bearing costs disproportionately over the longer term, whilst short-term savings remain far from certain.

There is a clear mismatch between the proposed framework and Ofgem's objectives, namely to ensure that network companies deliver improved consumer and network user experience in order to support and enable the energy system transition, whilst at the same time improving networks and their operation.

The risks and consequences of continuing to pursue Ofgem's proposed RIIO2 approach include greater uncertainty, increased risk, weakened incentives to innovate and invest to deliver value and outcomes that benefit consumers and meet government policy objectives. The regulatory regime would no longer provide investors with a clear, stable and long-term environment in which to invest, but one which is much riskier than RIIO1. This is contrary to good regulatory principles and Ofgem's primary objectives. An example of this is Ofgem floating the possibility that it may reopen other elements of the price control if a company successfully appeals and could 'claw back' any benefits, resulting in a zero sum benefit to the appellant. This fundamentally undermines trust in an established and essential appeal mechanism on which investors rely.

This misguided and short-term approach will not deliver the regulatory 'sweet spot' that strikes the right balance between attracting necessary levels of investment and ensuring that consumers are not overcharged. The risks created by pursuing the current RIIO2 proposals are therefore significant, wide-ranging and extremely damaging. Their negative impacts will be felt for decades with the costs borne by future consumer far outweighing any short-term benefit to current consumers – itself uncertain.

The current package of RIIO2 proposals are unbalanced and skew the price control heavily towards downside risk for companies. If left unchanged this will lead to constrained investment and weakened incentives to innovate and deliver value and outcomes that benefit consumers.

The number of new untested mechanisms introduces complexity, uncertainty and risk for consumers, networks and their investors. They seem to have little purpose other than to protect Ofgem from the risk of setting a badly calibrated price control. Examples of these mechanisms include allowed vs. expected returns and aiming investment returns down, both of which run counter to all established UK regulatory principles and precedent. Similarly the cashflow floor could see consumers being asked to make 'unlimited loans' to network companies.

The large body of evidence provided by our members under the RIIO2 process to date has largely been disregarded by Ofgem without explanation, justification or countering evidence. Nevertheless, we have included a substantial body of evidence from independent authoritative subject matter experts, including KPMG, Oxera, NERA and Frontier Economics, whose conclusions have been instrumental in guiding us to the view that these proposals need to be substantially rethought

The case has not yet been clearly made that the proposals Ofgem has put forward will deliver enduring consumer benefit. The use of dynamic and relative incentives introduces an additional degree of complexity and risk to the price control and it is unclear whether these types of mechanisms would deliver any net benefit to consumers overall. It is also not clear how any adjustments would take into account regional variations and exogenous events such as weather events from year to year and should be considered in the context of this shorter price control.

The necessary risk and impact assessments that must accompany the many new policy proposals are – where they have been undertaken – of limited depth and often flawed. This lack of quality analysis and evidence underscores a number of arbitrary approaches that cherry pick evidence and depart from regulatory precedent in order to support a pre-determined conclusion and the lowest possible outcome for network returns. Ofgem has failed to reach a balanced view drawing on all the available evidence it has at its disposal.

The approach adopted for the regulatory framework under RIIO2 and the next round of price controls, not only needs to evolve in response to the experience and lessons learnt under RIIO1, but also needs to take into account and be consistent with wider energy policy and its objectives. Central to this is ensuring the GB networks are able to continue to attract significant levels of investment needed over the next decade and beyond, and at lowest cost to the consumer. We urge Ofgem to keep this central to any considerations within the context of this consultation. We also encourage Ofgem, when coming to final decisions, to consider carefully the interactions and relationships between the various aspects of the RIIO package and the regulatory environment it provides in its totality. When doing this Ofgem must appropriately consider all the evidence and complete adequate impact assessments to inform policy.

Our members wholly support the setting of a framework that delivers a fair deal for both consumers and investors. RIIO1 was the first time that the RIIO principles have been applied. Since the beginning of the RIIO1 period, as all stakeholders' experience and understanding has grown, the effectiveness of the framework has increased. We continue to believe that the diligent application of the existing RIIO toolkit with evolutionary refinements will result in the best all round outcomes for consumers and continued economic prosperity. We must continue to utilise our world-class gas and electricity networks and the companies that successfully run them to ensure that energy and societal needs are efficiently met.

3. Giving consumers a stronger voice

3.1 Building on strong customer groups already in place network companies have responded quickly in setting up its Customer Engagement Groups (CEGs) in distribution and User Groups in transmission. These groups bring together independent stakeholders from a variety of backgrounds and organisations to provide independent examination and challenge to networks in particular on their business plans being developed under RIIO2. The groups will report to Ofgem on whether companies' business plans for RIIO2 will deliver on the needs of their stakeholders and consumers.

3.2 Our members are supportive of Ofgem's proposals for network companies to set up groups that deliver enhanced engagement with their stakeholders and their role in ensuring that individual business plans are tailored to the needs of customers in the regions companies serve. The engagement mechanisms that have been set up should do more to challenge Ofgem transparently whilst continuing to hold companies to account.

3.3 Our members are also supportive of the establishment of the RIIO2 Consumer Challenge Group and the independent scrutiny of networks' business plans. This is welcomed and something that ENA members called for from the outset of the RIIO2 process.

3.4 **We urge Ofgem to ensure that the Consumer Challenge Group has every opportunity to engage with our members. This is necessary to ensure it is fully informed on company business plans and the individual components of the price control that influence those plans. We also note the reduced level of access our members have had to GEMA under this price control review in contrast to the engagement that took place during the development of the RIIO1 framework, and would have concerns were this to continue.**

4. Reflecting what consumers want and value from networks

4.1 We strongly advocate the continued use of a mix of reputational and symmetrical financial incentives that are built on stakeholder required outcomes, and believe they are the most effective mechanisms for meeting the customer outcomes Ofgem seeks. There is a need for greater clarity around how these outcomes will be measured and the process by which networks will be held accountable for the delivery of 'outcomes' as opposed to 'outputs'.

4.2 The proposals as currently presented by Ofgem may make the three consolidated outcomes difficult to achieve. An appropriate balance needs to be found between avoiding extra costs to consumers and promoting the kinds of behaviour amongst companies that will lead to the outcomes Ofgem desires.

4.3 We advocate a strong Totex Incentive Mechanism (TIM) for network companies in the RIIO2 period to encourage them to innovate and find new cost efficiencies. Ofgem has indicated that totex sharing factors would be lower in RIIO2 than in RIIO1 proposed a TIM sharing factor range of 15% to 50%. We do not think this is in consumer interests, because lower sharing factors, in combination with the move to a five-year price control, will reduce the incentive on companies to find new cost efficiencies. We believe that whilst targets should be stretching it ought to be possible to beat them, and that such an outcome would be driving the right behaviour. Particularly if an incentive reward is linked to the level of consumer benefit, then it is in consumers' interests if a strong incentive drives companies to deliver the biggest consumer gains.

4.4 **Ofgem has not yet made a strong enough case that its proposals will deliver enduring customer benefit. The use of dynamic and relative incentives introduces an additional degree of complexity and risk to the price control and it is unclear whether these types of mechanisms would deliver any net benefit to consumers overall. It is also not clear how any adjustments would take into account regional variations and exogenous events such as weather events from year to year and should be considered in the context of this shorter price control.**

5. Enabling whole system solutions

5.1 We support Ofgem's ambition to harness the benefits of whole system thinking, and believe that getting a whole system approach right can, with the correct incentives, deliver benefits to consumers. Indeed it is only by understanding the UK's energy systems as one interlocking network that the greatest efficiencies in delivering secure, low-carbon outcomes can be achieved.

5.2 Our members therefore welcome Ofgem's recognition of the whole systems approach and its proposal to focus on the levers within the price control that could support the delivery of whole system outcomes across the energy system for the benefit of consumers. We believe the greatest efficiencies in delivering a secure, low-carbon sustainable energy system will be best realised through the adoption of a whole system approach. For us a whole system approach means looking at optimal network investment and operational decisions for the whole energy network, not just the individual parts in isolation. It also means considering interactions across energy vectors (e.g. heat networks, power, energy storage and transportation) so that wider options and consumer value can be taken into account and the use of commercial and flexible services. This work is supported by consideration of the connections, data links, interfaces, coordinated planning opportunities, potential impacts and shared learnings across transmission and distribution, electricity and gas networks and other energy vectors, both currently and in the future.

5.3 Our members believe that if our power, heat, transport and waste sectors are all interdependent, then so are the solutions for their decarbonisation. A whole system approach is based on our energy networks using new smart technologies to work together in an integrated way, building on the strength of our existing gas and electricity network assets. This is well illustrated by the fact that over 80% of peak energy usage is currently derived from gas, so without the gas grid there is simply not enough energy for the UK to function, or the means to transport that energy to end users during peak periods. With the population expected to increase by 22% by 2050 and other developments such as increased uptake of low emission vehicles, total energy demand will increase significantly. We therefore need to look at the energy system as a whole, by delivering on future investment and developing smarter solutions needed to meet our energy objectives and clean growth.

5.4 Gas and electricity networks are currently delivering an energy transition and are well placed to play a central role long into the future. How to harness the capacity of networks to bring about the desired outcomes is a fundamental question though an evolution of RIIO1 could achieve this. Realising the benefits of whole systems thinking requires robust incentives that provide clear signals for companies to invest in innovative activities, and are of sufficient strength to overcome networks drivers that guide company behaviour towards conventional solutions whilst managing the inherent uncertainty. Under Ofgem's proposed definition of 'whole system', the primary focus must be on reducing barriers between transmission and distribution and between energy vectors.

5.5 **We believe that the proposed mechanisms for unlocking the benefits of a whole system approach are going broadly in the right direction though this urgently needs to be developed into a more concrete RIIO2 proposition.**

6. Ensuring future resilience

6.1 Having enjoyed a secure, reliable and resilient energy system for decades, consumers and the economy expect this to continue, especially given the increasingly central role of energy in day-to-day life. New types of threat are emerging, such as cyber risks, which grow as the energy system decarbonises. The increasing use of technology and data creates new vulnerabilities, and climate change accentuates traditional network threats as extreme weather become more frequent. It is essential RIIO2 is an investment-worthy regime that stimulates innovation so that consumers continue to benefit from resilient energy supplies.

7. Managing uncertainty

7.1 RIIO1 includes effective mechanisms that were designed to limit uncertainty across an eight-year price control period. These mechanisms have worked well, and ought to be refined and extended as we go into the RIIO2 period. Instead, Ofgem proposes to introduce a host of new tools to manage uncertainty, despite the fact that there is no evidence that the approach taken under RIIO1 has been unsuccessful. The returns adjustment mechanism, the cash flow floor mechanism, indexation of the cost of equity and allowed vs. expected returns will be counterproductive. Layering very different and largely untested mechanisms on top of each other will add significant complexity and uncertainty, and runs contrary to the Ofgem's stated objective of simplification under RIIO2. There is diminishing value in adding each new layer of complexity and we have serious concerns about the unpredictability of the consequences and compounding of risks.

7.2 We are in favour of refining the mechanisms used in RIIO1 and applying new uncertainty mechanisms **where required**. Whilst these may add some further complexity, in the form of real price effects indexation, new reopener mechanisms and other new proposals, these are necessary to be able to respond to the uncertainty surrounding the scale and timing of the decarbonisation activities networks will need to deliver. Care needs to be taken with any uncertainty mechanisms to ensure they do not increase risk and uncertainty, and that they would act to support investment in the sectors. Given this risk, Ofgem should only introduce new elements after careful and thorough assessment of the impacts and once it has clearly demonstrated that the proposed action is in the best interests of the consumer.

7.3 Instead of introducing a suite of new uncertainty mechanisms, our members favour the refining and re-baselining of existing mechanisms, which worked well and remain most appropriate for the RIIO2 period. They also welcome the opportunity to suggest alternative approaches to mechanisms with which to manage uncertainty; these can be found in their RIIO2 consultation responses.

7.4 We understand that uncertainty mechanisms are not proposed to apply for the ESO, due to Ofgem's proposals for a two-year business planning cycle. We agree with the principle of enabling the ESO to be more agile and able to respond to changes in the energy system and markets, but we have some concerns around the engagement burden that a two-year cycle would bring, and for the ESO's ability to invest over the longer term to deliver for its customers. We ask Ofgem to consider how to strike an appropriate balance between flexibility, stability and regulatory burden when finalising the design of the ESO's framework.

8. Innovation

8.1 Since 2004 over 1400 innovation projects have been delivered across both gas and electricity networks. These projects have allowed network operators to understand how to integrate new energy technologies such as electric vehicles, renewable distributed generation and decarbonised sources of gas more effectively into our energy system. Britain's energy network companies are now considered to be some of the most innovative in the world, working closely with a wide range of partners including SMEs and academia. These innovation projects have contributed to a strong track record for Britain's homes and businesses:

- Network costs are almost a fifth (17%) lower than they were at the time of privatisation in 1990.
- Over 30GW of distributed energy resource is now connected to the distribution network, much of it in the form of renewable electricity generation.
- Over 90 sites have been built to produce green gas are connected to the network in GB.
- New investment in the energy networks under the current price control period (2013-23) is forecast at nearly £35bn.

8.2 Looking forward, continuation and expansion of innovation funding in the future through the price control system is vital for energy network companies to play their full role in delivering decarbonisation, supporting the UK economy and delivering the government's wider strategic goals. ENA notes that the UK government has committed to a national target of 2.4% of GDP invested in UK research and development by 2027, with a longer-term target of 3%. RIIO2 should match this ambition at least.

Proposals to encourage more innovation as BAU

8.3 In principle, delivering certain innovation as BAU is desirable and we support totex incentivisation, especially where these drive efficiency for businesses and their customers. However, this needs to be delivered alongside dedicated innovation funding mechanisms that recognise the components of network innovation activities, which:

- have a higher risk profile than BAU can support, particularly given the proposed reduction in the cost of equity (see sections below), which will naturally lead to less risky BAU investments by networks than currently occur,
- is at lower TRL so will not deliver a direct commercial benefit, or the benefit will only be realised well beyond the price control period,
- delivers benefits that may not be directly attributable to networks, but benefit the wider energy industry.

8.4 Ofgem also needs to consider how the price control will continue to support collaboration and dissemination of learning for projects delivered as BAU.

8.5 We recognise the challenge that a lack of clear, long-term policy in areas such as heat decarbonisation presents to Ofgem. However, as BEIS, the CCC and others have suggested, the early 2020s will be a key time to develop evidence which supports longer-term decision making. Given the need for all parts of the energy system to play an active role in developing new technologies and approaches to meet these challenges, we believe RIIO2 should actively support this through dedicated innovation funding, as we set out in more detail below.

Proposals to remove the IRM for RIIO2

8.6 ENA members consider the future of the IRM for RIIO2 to be a finely balanced decision. We would like to continue to engage with Ofgem on plans and mechanisms to support the transfer of innovation projects to BAU. Innovation mechanisms are designed to fund novel approaches: developments to support strategic challenges such as decarbonisation may build on innovation learning but require new funding approaches until they become fully BAU.

New network innovation funding in place of the Network Innovation Competition

8.7 Under the current RIIO price control arrangements, the innovation stimulus has had significant success in encouraging network companies to bring forward innovative projects and embed a culture of innovation within their organisations. This has led to significant advances in the application of new technologies and techniques and the development of skills and capability within the organisations involved, to the benefit of current and future consumers, as well as the wider energy industry. Indeed a key feature of the RIIO1 innovation mechanisms has been the collaboration and sharing of best practice delivering both short term benefits shared with the customers of the innovating network, and subsequent longer term customer benefits across all networks. New mechanisms should build on these successes.

8.8 Gas and electricity NIC projects have contributed significantly to building understanding of options for decarbonising the energy system, and directly supporting new technologies and approaches. We strongly support the continuation of this work, noting that:

- the definition of 'energy system transition' needs to be sufficiently broad to ensure that a wide range of projects can be undertaken,
- as we comment below, NIA projects have played an important role in supporting NIC, either providing earlier stage development of concepts, or funding dedicated pieces of work as the project develops,
- cross vector projects may require new mechanisms; while some joint gas & electricity innovation has taken place in RIIO1, the distinct innovation mechanisms, unaligned price control periods and issues around benefit measurement and sharing can produce barriers,
- third party involvement and interest in NIC projects has significantly increased in recent years. The 2019 joint NIC call for ideas run by ENA resulted in 58 submissions across gas, electricity and cross-vector areas, with more than 10% of these planned to be submitted to ISP at the time of writing.

Role of the NIA within RIIO2 and measures to track benefits more effectively

8.9 The NIA has been important in three key respects.

- Providing a mechanism to support projects as they emerge, without waiting for particular funding cycles or deadlines,
- Developing earlier stage research and development which can support more strategic projects,
- Deliver benefits to the wider energy industry, which are not directly attributable to networks.

8.10 ENA notes ongoing work between the networks and Ofgem to support better measurement and reporting of outcomes and benefits of NIA projects. Dedicated funding, such as through the NIA, ensures that networks are incentivised to collaborate and share learning, even from low TRL innovation. If such projects were delivered through BAU, the IP sharing and dissemination would be significantly reduced, impeding the industry-wide benefits for consumers and the potential for networks to learn from projects in other areas.

Competition

8.11 As a principle, our members support considering new approaches that will deliver clear benefits to consumers. It is worth noting that network companies are already subject to EU procurement law and applicable financial thresholds over which projects are required to go to market under open tender. Where projects fall below the EU threshold competitive processes are also very likely to be used, where transactions costs are not disproportionate and they can help to minimise costs due to the totex incentives. Also much of the new network connections market in gas and electricity distribution is already competitive.

8.12 Any introduction of new competitive models across networks needs to be considered carefully given the physical and operational characteristics of our networks and the technical, commercial, regulatory and legal requirements that must be met by those who own and operate them. Ahead of competition being extended to new areas a robust cost-benefit analysis should be developed and consulted upon to ensure there is a strong evidence based consumer case relative to a realistic counterfactual.

8.13 In terms of price finder competition type proposals, we are unclear how these proposals would further enhance existing native competition.

8.14 **Any introduction of competition into new areas would therefore need to be a) supported by the evidence (i.e. quantitative impact assessments that demonstrate proposals will lead to consumer benefit) and b) underpinned by legislation ensuring Ofgem operates within its statutory remit.**

DNO competition for flexibility providers

8.15 Through the current RIIO price control and the Open Networks Project, DNOs are already making strong progress increasing the use of competitive third party flexibility services to fulfil network requirements where these are better value for consumers than more traditional network reinforcements or upgrades. This work is key to reducing the costs of new infrastructure investment, running existing infrastructure more efficiently and creating a smarter, more flexible system. DNOs are already testing the market and engaging third party services in order to ensure we continue to meet obligations to deliver a safe, secure and efficient energy system. The benefits to consumers, the economy and sustainability of encouraging competition and opening markets are now well recognised, and **DNOs continue to open up network requirements to market competition on a BAU basis.**

8.16 However, network operators wish to go further and there is further scope to build on the positive progress made so far. All DNOs have committed to the direction set by Ofgem that their next price control settlement will be set on the basis that they become Distribution System Operators (DSOs). A major part of the DSO role will be to act as a neutral market facilitator, providing a platform or route to market for third party flexibility service providers, highlighting where there is an opportunity to bring forward new solutions and ensuring there is transparency and confidence in the arrangements. The result will be that companies procure the most efficient solutions to tackle constraints on the network. **DNOs are already openly testing the market to compare relevant reinforcement and market flexibility solutions for all new projects of any significant value. DNOs are committed to working with Ofgem and other stakeholders to develop the RIIO2 framework in this way, ensuring incentives are fully aligned and do not encourage reinforcement where market flexibility solutions are more efficient**.

9. Simplifying business plan assessment

9.1 The RIIO2 price control should seek to encourage ambitious behaviour from network operators. Bold business plans brought forward by equally ambitious regulation will deliver the long-term consumer benefit that Ofgem seeks. However, the RIIO2 proposals are weaker than the current price control arrangements: the potential upside gain has been significantly reduced and the downside risks are considerably greater (for example, uncertainty caused by subjective elements within the proposals) meaning consumers will benefit less. In response to the changing balance between risk and reward our members are much more likely to respond with less ambitious business plans that aim lower than they did under RIIO1. Ofgem needs to strike the right balance between avoiding excessive costs and encouraging the right behaviours. The business plan incentive is, however, unlikely to achieve either of these.

9.2 The business plan incentive as currently proposed involves a large degree of subjectivity in respect of the quality element of the business plan assessment. There is little detail on how this aspect would work. For example, how much weight would be placed on reports by the Consumer Engagement and Consumer Challenge Groups? What if a proposed approach, considered innovative by a company, is considered otherwise by Ofgem? Would it score negatively? The proposal to share, and in that way dilute, potential business plan incentive rewards between network companies weakens the incentive for companies to submit ambitious plans. We think an absolute business plan incentive reward would be more effective in driving the intended ambition. There is also a significant degree of uncertainty in the way the margin of error in cost models plays with the incentive's band, which effectively creates a cliff-edge effect.

10. Fair returns and financeability

10.1 Our members have serious concerns that the RIIO2 package viewed as a whole is unbalanced, and that contrary to Ofgem's objective of a lower risk, lower returns mechanism the appropriate balance between risk and reward has not yet been found. Risk has increased and Ofgem's proposal is for inadequate returns, the regulator having followed a flawed process and a misinterpretation of its financeability duty.

10.2 Ofgem has a statutory responsibility to ensure each individual network is financeable and in doing so meet its principal objective, which is to protect the interests of existing and future gas and electricity consumers. In carrying out its duties it must have regard to the need of network companies to be able to finance their licensed activities efficiently. That requires Ofgem to set a framework, in this case the financial components, so as to ensure that individual network companies are able to secure the financing needed to deliver their regulatory obligations. In doing so Ofgem must also ensure that a fair balance is struck between investor returns, which must be sufficient to attract the necessary levels of investment, and costs to consumers. These priorities must be balanced to set a fair return which is in the interest of both consumers and shareholders.

10.3 This in part requires Ofgem, when setting financial parameters, to take a long-run view consistent with the characteristics of networks (long-term capital infrastructure assets) and those who would invest in them. Decisions should also be taken based on sound regulatory evidence and precedent. We do not believe this has been done and urge Ofgem to resist its decisions being driven by short-term pressures to reduce consumer bills in a way that drives it to setting a suboptimal framework that risks destroying investor confidence and resulting in underinvestment. The impacts of such a scenario, were it to materialise, would be far reaching, with costs over the medium to longer-term far outweighing any short-term savings.

10.4 For ease of reference the following sections provide a response to financial issues in order they appear in the consultation document.

Cost of Debt

10.5 To consider this aspect of the finance proposals ENA commissioned NERA Economic Consulting to investigate based on networks' actual cost of debt, forecast expected investment and modelled the allowed cost of debt over RIIO2, under the different RIIO1 mechanisms already in place, over the RIIO2 period, under a number of simplifying assumptions. The analysis also assessed evidence for the 'halo effect' and provided some initial views on company transaction and liquidity costs.

10.6 The evidence and key conclusions from the NERA analysis show that all network sectors expect to underperform cost of debt indexation over RIIO2 under a range of interest rate scenarios, with continued dispersion within these sectors where they contain multiple groups. This requires Ofgem therefore consider how to address underfunding of debt costs for which the NERA report makes a number of recommendations. There is also no evidence to support a halo effect. The stylised analysis carried out also shows that liquidity costs are material alongside transaction costs. We recognise that this is an area where further work needs to be carried out and informed by company business plans.

10.7 Ofgem will have seen the downgrades of debt ratings for a number of network companies as a result of the debt market's current understanding of Ofgem's RIIO2 proposals. These downgrades mean Ofgem's indicative policy choices are already, in RIIO1, going to cost consumers more in debt costs if affected companies need to raise new funding for investment. Ofgem should review in the round the views of debt rating agencies.

A copy of the NERA report 'Cost of Debt at RIIO2, a Report for ENA' is submitted as part of this response.

Cost of Equity

10.8 We reaffirm the necessity for Ofgem to set a cost of equity that is sufficient for networks to fund their activities required under their licence obligations. This has never been more important given the degree of uncertainty acknowledged by Ofgem around the changes to our energy system and so need for companies to be able to respond to change and new risk associate with a rapidly changing environment.

10.9 The current proposals are fundamentally flawed and lead to a cost of equity value (albeit a working assumption) that would represent a very large decrease from RIIO1, on average around 3%-4% (RPI-deflated). We believe that this results in a level of return that is significantly below that required for RIIO2 in order to attract and retain the necessary level of investment consistent with Ofgem fulfilling its primary duty to consumers. This occurs due to a number of errors in the approach that Ofgem are proposing including cherry picking from the evidence base available.

10.10 To inform the approach to setting the cost of equity ENA commissioned independent authoritative experts Oxera Consulting. The report sets out a framework for applying the capital asset pricing model (CAPM) in the context of setting allowed returns for long-lived network investments during RIIO2 and concludes that, based on current evidence and regulatory precedent, an appropriate cost of equity is higher than Ofgem's current working assumption. A range of 5.51–6.34% is recommended to inform the assumption for the real (RPI-deflated) cost of equity in RIIO2.

Oxera's report 'The Cost of Equity for RIIO2, a Review of the Evidence' is submitted as part of this response.

Risk-free rate indexation (cost of equity)

10.11 Ofgem propose to index the cost of equity to changes in the risk-free rate (RfR). The rationale is that indexation will allow the price control settlement to react to changing market circumstances. In order to better understand this type of approach we commissioned independent economic consultants NERA and Oxera to carry out an analysis. This work produced a number of observations.

10.12 The cost of equity is not observable. Therefore, in any attempt to index the cost of equity, a decision needs to be taken about whether (and how) to index one, or several, of the cost of equity parameters. The design of any cost of equity indexation mechanism will involve a higher degree of subjectivity than the equivalent mechanism for the cost of debt.

10.13 Overall, a move to cost of equity indexation would represent a considerable change in methodology. Such a change in methodology would need to take into account a number of principles, be appropriately signalled and introduced with appropriate transitional arrangements such that it does not undermine investor confidence.

10.14 A number of the key design aspects of this proposal have been considered, including the appropriate tenor of RfR index, inflation adjustment to derive a CPIH real RfR and averaging period. This work also considers the impact on RIIO2 allowances, credit metrics, and network charges and the overall merits of ex-ante vs. cost of equity/RfR indexation.

NERA's report 'Cost of Equity using RfR, a Report for ENA' is submitted as part of this response.

Total market returns

10.15 ENA commissioned NERA Economic Consulting to undertake an independent review and analysis of Ofgem's proposed approach and assertions in respect of estimating total market returns (TMR).

10.16 Key conclusions from this work show that there is no market evidence to support a decline in either realised or expected returns, and indeed recent market evidence is consistent with a broadly constant TMR over time. Examining historical realised returns for major equity markets, NERA show that there is an upward trend in returns in three of the five major equity markets (US, Germany, Japan) and there is no discernible tend in either of the other two (UK or France).

10.17 The NERA analysis also considers other aspects of the proposed methodology and conclusions. These include analysis of the cross checks used by Ofgem which include estimates used by investment consultants, long-term investors and the dividend growth model. The NERA analysis shows that evidence from forward-looking DGM models, including the Bank of England, Bloomberg and PwC, shows no discernible trend in the DGM estimates over the recent past, despite their varying methodologies and implied absolute levels of the TMR.

NERA's report 'Further Evidence on the TMR, a Report for ENA' is submitted as part of this response.

Equity beta

10.18 We have considered Ofgem's approach to determining equity beta and again believe we have identified a number of errors in the proposed approach. Coupled with biased selection of evidence and arbitrary judgments this leads to an erroneous estimate of beta.

10.19 ENA commissioned Oxera Consulting to undertake an independent review and analysis of Ofgem's proposed approach to estimating the equity beta. The report investigates two of the areas where Ofgem's methodologies and assumptions may be leading to the incorrect estimation of the cost of equity: 1) the methodology for estimating beta from market data and 2) the impact of gearing on the equity beta. The report concludes that the proposed Ofgem methodology is flawed in a number of areas and therefore leads to a lower than appropriate beta.

Oxera's report 'The Estimation of Beta and Gearing, a Report for ENA' is submitted as part of this response.

Expected vs. allowed returns

10.20 We do not agree with Ofgem's proposal to make any downward adjustment to the allowed cost of equity to reflect its expectations that companies will outperform the targets that it sets at these price control reviews. Again, we believe this is an adjustment which is conceptually and practically flawed.

10.21 We therefore asked Frontier Economics to undertake an independent expert appraisal of Ofgem's proposals. The report concludes that should Ofgem decide to persist with its proposal, then this will lead it to set the cost of capital too low. Ofgem should revisit its decision on aiming up in view of longstanding regulatory best practice and the lessons from academic work. Not only is the proposal without merit, but it carries with it many potential costs to consumers. Ofgem's argument that inherent information asymmetries will lead to positive expectations of company performance during RIIO2 and that Ofgem should adjust for these is an extremely weak justification for such a distortionary policy.

Frontier's report 'Adjusting Baseline Returns for Anticipated Outperformance, an Assessment of Ofgem's Proposals' is submitted as part of this response.

Financeability: Cashflow floor concept

10.22 If the financial parameters are set appropriately (i.e. the cost of debt and equity) network companies should be able to pay their debt comfortably. The proposed cashflow floor would see consumers inject cash into network companies, akin to a loan, were a network to find itself in a situation where it is unable to service its debt. It is the regulator's duty to ensure that network companies are financeable, and it is therefore difficult to understand the purpose of the cashflow floor since the circumstances under which it would be triggered ought not to arise.

10.23 ENA commissioned independent experts KPMG to conduct an appraisal of the cashfow floor proposal. The report of this work draws conclusions and findings that include:

- No market failures have been identified that justify the floor, or that the floor is required to remedy. In fact, the floor appears to be a response to Ofgem’s unprecedented reduction of the cost of equity, rather than in response to a market failure
- Ofgem does not appear to demonstrate that the application of the cashflow floor would ensure an approximation of an efficient, competitive market outcome
- Any form of intervention of this kind is likely to introduce significant market distortions
- The floor is likely to have negative implications for incentives, reducing monitoring and contingent control rights of debt capital providers while undermining equity
- The floor will introduce additional complexity and market distortions
- There are alternative mechanisms available to ensure financeability and approximate market outcomes that better meet the criteria for targeted, efficient regulation.

10.24 Based on this evidence we would urge Ofgem to reconsider its proposal for a cashflow floor on the basis that it is unnecessary, and is seen by Ofgem as necessary as a result of its fundamentally flawed approach towards setting key financial parameters.

KPMG’s report ‘Assessment of Ofgem's Cashflow Floor Proposals’ is submitted as part of this response.

Conclusion

10.25 In order to assist in the develop of a sound base to inform decision makers, networks, wider stakeholders and the engagement and decision making process, ENA has commissioned a number of leading independent economic experts to undertake appraisals of the methodologies proposed by Ofgem for determining a number of the key financial parameters for the next price controls.

10.26 Whilst these assessments were undertaken independently of one another and across different aspects of the financial parameters they share recurring conclusions in respect of Ofgem’s proposed approach, namely that the proposals apply arbitrary approaches, are selective and biased in their choice of evidence and its interpretation, and depart from recognised regulatory precedents and methodologies. These fundamental flaws result in skewed outcomes to the ‘working assumption’ values use for setting the financial parameters.

10.27 If Ofgem continue to pursue this approach, in contradiction to the overwhelming body of evidence, it will lead to a price control that is both capital constrained and provides little or no incentive for networks to invest, innovate and unlock benefits to consumers. In such circumstances Ofgem will not have met its statutory responsibility to ensure each network is financeable and in doing so meet its principle objective, which is to protect the interests of existing and future gas and electricity consumers. We therefore urge Ofgem to consider carefully the evidence presented by ENA and its members.

Ensuring fair returns

10.28 Returns adjustment mechanisms are unnecessary and would punish outperforming companies for their successes and our members therefore strongly oppose the introduction of any such measure. It is a fundamental principle of an incentive-based price control that outperformance should be encouraged, not penalised.

10.29 It is not clear and Ofgem have provided no evidence that these types of mechanisms can be relied upon to create net-benefits for consumers. Any savings for consumers that might come about as a result of applying a RAM would need to be weighed against any reduction in value for money that would flow from reduced incentives to innovate and improve performance as well as any increase in the cost of capital caused by increased perceptions of risk. The proposed approaches continue to be set out at a very high level and the detailed working and impacts would need to be properly understood before they could be applied.

10.30 We therefore urge Ofgem to consider carefully whether adopting any new approaches that in general seek to remove or reduce any risk associated with forecasting financial aspects of the price control and 'fail safe' measures that restrict the level of achievable outperformance is on balance the best all round approach. It should be recognised that they carry significant risks and uncertainties. We think this needs to be weighed carefully against applying well understood RIIO1 mechanisms that Ofgem is able to calibrate using several years of sector data on costs and performance.

10.31 The proposed shorter five-year price control will assist in reducing forecasting error, as would the use of existing uncertainty mechanisms. For example, downsides created by ex-post mechanisms that would limit or adjust returns could have a cooling effect on RIIO incentives designed to drive innovation, efficiencies, costs reduction and higher standards of customer service. These risks and their impacts would also manifest themselves at a time when companies will be required to adopt behaviours needed to adapt to, facilitate and enable major changes to our energy system.

11. Achieving a reasonable balance in RIIO2

Accuracy vs. simplicity

11.1 Our members recognise the challenges in striking a balance between accuracy and simplicity but remain strongly of the mind that there remains some distance to travel. Ofgem ought to refine and enhance the RIIO1 price control package, which has been recognised around the world as an outstanding example of incentive-based regulation. RIIO1 includes effective mechanisms that were designed to limit uncertainty across the price control and worked well. Any perceived issue around additional returns could be addressed through gradual and well-signalled policy changes, executed in a way that would not undermine investor confidence and risk jeopardising investment in the sector.

11.2 However, under the current proposals Ofgem has attempted to address the accuracy challenge through the addition of new and complicated mechanisms – that risk interacting unpredictably with existing arrangements – overlaid on an already complex framework. This is despite the fact that there is no evidence that the RIIO1 approach has been unsuccessful. The returns adjustment mechanism, the cash flow floor mechanism, indexation of the cost of equity and allowed vs. expected returns will be counterproductive. Layering different mechanisms on top of each other in this fashion adds significant complexity and uncertainty, and runs contrary to Ofgem's stated objective of simplification under RIIO2. There is diminishing value in the addition of each new layer of complexity and we have serious concerns about the unpredictability of the consequences.

Risk vs. return

11.3 Ofgem is yet to strike the right balance between risk and reward with these proposals and has developed a number of new mechanisms for RIIO2 that protect it from potential price control setting errors which give rise to net additional risk to companies and higher costs to consumers. Our members would like to see an impact assessment urgently undertaken that considers the balance of the overall package, not merely its constituent components considered individually. In our view the current proposals are clearly intended to put downward pressure on companies' returns and do not represent a balanced price control. We are concerned that a disproportionate focus on short-term return reductions will come at the cost of insufficient strategic investment required to meet the needs of future consumers.

11.4 Whilst we are aware of issues with specific mechanisms within the proposed price control, the broader picture is one of a weakening of the incentives which made RIIO1 a success and lack of support for the innovation on which the RIIO framework was based. Similarly, although we appreciate that Ofgem is seeking to ensure that the level of returns works in favour of current consumers as much as is reasonably practicable, this should be balanced against the need to enable and incentivise the long-term investment and innovation required to facilitate the ongoing transformation of the sector, and guard against unintended consequences.

11.5 The current proposals do not reflect the principle that risk should be allocated appropriately between companies and consumer depending on who is best positioned to manage them. The allocation of risk under Ofgem's proposals for RIIO2 does not appear to be based on a considered approach to present and future risk management. Ofgem has therefore proposed, without adequate justification, a RIIO2 approach that creates new sources of risks and heightens existing risk.

Efficiency vs. fairness

11.6 We agree with the need to take into account the circumstances of vulnerable consumers, and recognise that this will from time to time necessitate the reallocation of some costs from one group of consumers to another.

11.7 However, the overriding picture of the proposals for the RIIO2 price control is one in which significant risk and uncertainty is added with the aim of creating downward pressure on company returns to make a short-term reduction in bills. However, this comes at the cost of investment in a smarter, greener and more flexible energy system and risks impeding progress towards the government's economic and industrial objectives as well as moves towards a greener economy. This is not in the interests of consumers over the medium to long term.

12. Conclusions

12.1 ENA on behalf of its members welcomes the opportunity to respond to this consultation on the RIIO2 framework. We reiterate our point that the experience and knowledge gained through the RIIO1 period would stand companies in good stead for evolutionary refinements going into RIIO2, and lay the foundations for providing the best outcomes for consumers.

12.2 We strongly support Ofgem's efforts to set a framework that delivers a fair deal for both consumers and investors. This means creating the conditions to attract new investment and drive behaviours that deliver network services to meet the needs of a wide range of consumers consistent whilst advancing the UK's clean growth energy policy. Again, we urge Ofgem not to focus on short-term cost savings and not to lose sight of longer-term objectives in a way that risks eroding incentives to invest, innovate and improve performance for consumers

12.3 RIIO2 needs to enable the energy sector to meet the future challenges of an uncertain investment and growth future, setting stretching targets whilst providing a stable regulatory regime in which investors can have confidence. This needs a holistic approach driven by objectivity and evidence.

12.4 Finally, we would like to acknowledge the stakeholder engagement activities that Ofgem has undertaken with ENA members in recent months. We are grateful for the time and effort that the team has invested in this process and on behalf of our members we look forward to continued engagement over the coming months.

12.5 If you have any questions on the points raised in this response, please contact John Spurgeon, Head of Regulatory Policy: john.spurgeon@energynetworks.org

Energy Networks Association
14th March 2019

Annex

ENA response to RIIO2 consultation – Evidence submitted

We submit the following independent experts reports with this response. These will also be referenced across our members' responses to the consultation.

1. Nera – Cost of Debt at RIIO-2
2. Nera – Cost of Equity Indexation Using Risk Free Rate
3. Nera – Review of UKRN Report Recommendations on TMR
4. Nera – Further Evidence on the TMR
5. KPMG – Assessment of Ofgem's Cashflow Floor Proposals
6. Frontier – Adjusting Baseline Returns for Anticipated Outperformance
7. Oxera – The Estimation of Beta and Gearing
8. Oxera – Asset Risk Premium and Debt Risk Premium
9. Oxera – Rates of Return Used by Investment Managers