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Dear Mr Copeland,

The Network Innovation Review: Our Consultation Proposals

We welcome the opportunity to respond to this consultation and express our views on the proposed changed to the Network Innovation Allowance (NIA) and Network Innovation Competition (NIC). Some of the key points that we would like to draw your attention to are:

- At SGN we believe that the NIA and NIC are delivering significant benefits in terms of pushing the boundary of innovation, promoting cross-industry learning, and deploying actual innovation into the field with real projects. As such we consider them a great platform to create future benefits for energy customers.
- We are extremely disappointed with the evidence base that OFGEM have drawn upon when setting out their proposed changes to the NIA and NIC funding, essentially based on a review of the LCNF[1]. As stated by OFGEM in Para 2.2 "Given the materiality of the funding paid for by the consumers under the NIC, we considered it was important to commission an independent review of the scheme. The purpose of the evaluation was to look at the impact the scheme has had on companies' culture towards innovation activities, as well as whether the projects funded under the scheme will deliver value for money for consumers". We seek reassurance from OFGEM on how the perspective of Gas Innovation projects has fed into this review. It is important that an adequate review of both the electricity and gas NIA and NIC funding mechanisms has been completed before change proposals are implemented.
- Furthermore, some of the changes proposed appear to be based on anecdotal evidence and loose feedback from consultations. We do not recognise these issues and would request quantitative evidence or qualitative examples to support these changes.
- In our opinion the evidence collection process that informed this consultation has missed the opportunity of learning valuable lessons from the gas innovation projects covered by the NIA and the NIC. The NIA and NIC projects have had a strong strategic alignment across industry and as participants we have regular calls for projects and processes for promoting third-party proposals along the lines advocated by OFGEM.

[1] An Independent Review of the LCNF, Oct 2016, Poyry and Ricardo Consulting, https://www.ofgem.gov.uk/system/files/docs/2016/11/evaluation_of_the_lcnf_0.pdf

- We are of the view that removing the SDRCs contradicts the purpose and vision of the innovation stimulus. The SDRC provides a strong incentive to the project management team for successful delivery, delivery transparency and effective management scrutiny. This helps to ensure that the consumer secures value for money and promoting the effective sharing of information beyond project participants.
- Similarly we are concerned that the proposal to remove the Bid Preparation costs will expressly contradict some of the changes that OFGEM is trying to promote. By increasing the associated risk exposure of bidding, bidders are likely to refocus innovation on projects where there is a direct and tangible strategic benefit to the bidder. We are concerned that this will reduce some of the frontier innovation. It may also have the undesirable ramification that organisations look to recover these costs through the project funding and encourage less transparent financial reporting.
- Unlike other funding structures referred to by OFGEM, the NIA and the NIC are designed to maximise consumer rather than shareholder benefit and we think that this focus should remain. It is on this basis that we believe that the networks must remain at the core of each innovation method. This is the most effective way to ensure value for money for the consumer, focusing innovation projects on practical applications that can be rolled out across the network and encourage networks to work together to maximise value. We have seen no robust evidence in support of direct access for third parties, to the contrary we are concerned that such access will reduce the ability of projects to deliver outcomes.

It is our opinion that the NIA and the NIC have been an important success story for the gas distribution networks within the RIIO framework, driving innovation and promoting strategic collaboration across networks to deliver customer savings. We are keen to ensure that these positive attributes are maintained. Furthermore, given the importance of decarbonising heat in delivering the targets set out in the Climate Change Act, we would recommend that rather than being reduced, electricity funding is re-targeted or opened up towards gas decarbonisation, enabling the networks to deploy greater quantities of green gas and hydrogen.

Should you require any further information with regards to our response then please do not hesitate to contact me at David.Handley@SGN.co.uk

Yours sincerely,

David Handley
Head of Regulation
SGN

The Network Innovation Review: Our Consultation Proposals

Question 1: What are your views on our proposals to introduce a requirement for the network companies to jointly develop an industry-wide innovation strategy?

- **If you agree, should companies retain their own strategies, and in addition should there be a single system strategy, or one for gas and another for electricity?**
- **How often should the strategy be updated?**

The consultation document identifies a key recommendation from the consultant's report that the industry should develop a strategy for innovation across GB and as a result OFGEM are proposing to incorporate this into the standard licence conditions of the Network Companies. We think that if the consultants had evaluated gas network innovation projects then they would appreciate that a joined up approach is already in place and continually evolving. As such introducing a further licence condition is not necessary.

The Gas Networks Licensees are already proactively engaged with many of the public bodies identified by OFGEM, work together to understand each other's innovation strategies and have mechanisms for sharing learning and effective dissemination. On top of the work we are doing incentivised through the stakeholder engagement incentive, each project has as part of its design a stakeholder strategy and through the course of project delivery we engage widely.

In Figure 1 we have set out our view of a high level structure that guides innovation in the gas networks. This divides projects according to their deployment timeline - current day steady-state through to future 2030+ highly flexible – and according to the expected impact – efficiency measures, network improvements through to commercial deployment and techno-economic studies.

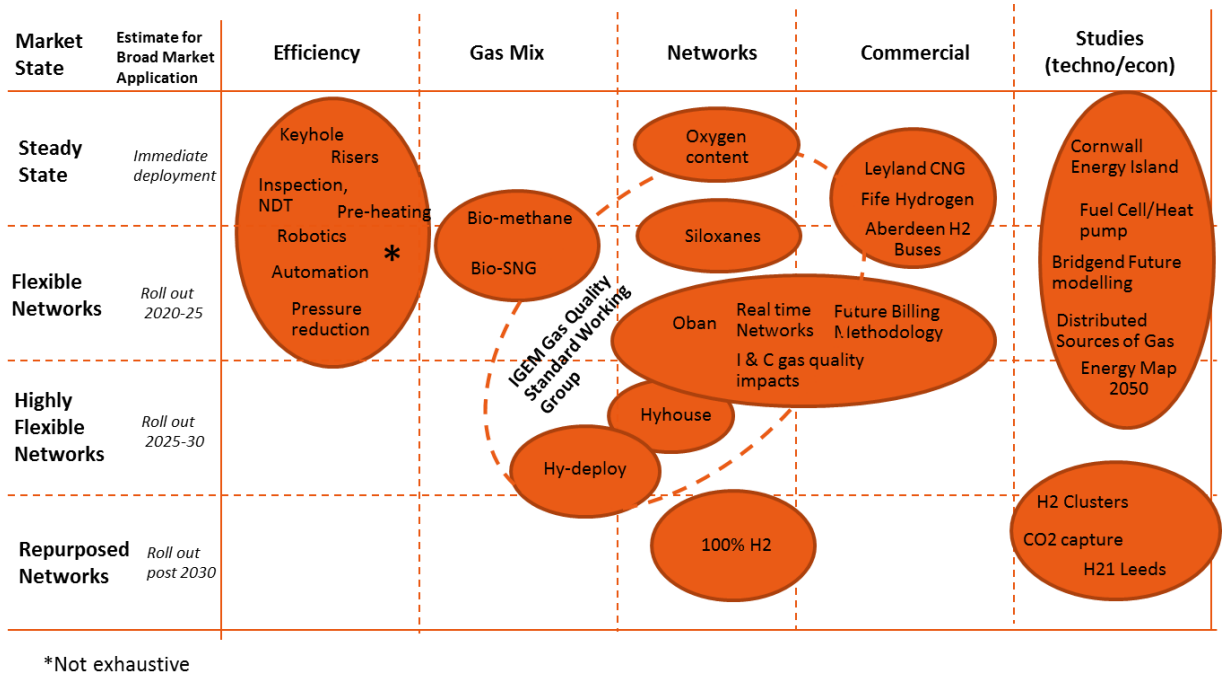
There are many networks projects focused on improving the current operation of the network 'Steady-State' with a focus on delivering efficiency, improving network resilience and trials on commercial deployment. If successful these projects generally are able to be deployed in the near future and will directly reduce costs to the consumer.

The second strand of projects then focus on increasing flexibility of the gas networks through GD2 and beyond with projects looking at decarbonising the gas networks and testing the safety case associated with changing the gas mix. From these projects our current expectation is that we could increase decarbonised gas penetration subject to appropriate safety cases being made in the IGEM Gas Quality Standard Working Group.

This second strand is an important pre-requisite to the introduction of highly flexible gas networks able to deploy >20% decarbonised gas, as well as stimulate and accommodate downstream renewables.

We are also working towards evidencing the potential of a fully repurposed network using Hydrogen. As we progress forward, the findings from the techno/economic studies will inform and guide the practical innovation projects necessary to ensure that these higher levels of decarbonisation can be delivered safely.

Figure 1: Gas Networks Innovation Strategy



*Not exhaustive

This broad strategy has been developed through regular communication and healthy competition between network companies looking to position themselves leaders in innovation, competing for funding and having to justify their funding application in relation to the other projects.

We recognise the aims as set out by OFGEM (para 3.5) of having a joined up approach, building on previous projects, avoiding duplication and learning from international experience. These are risks that in the Gas Networks sector we have self-regulated effectively until now and do not at this point see evidence that justifies a regulatory intervention. In contrast, we are concerned that a prescriptive industry wide strategy could stifle the flexibility and dynamic nature of innovation in the sector and that any strategy document could become cumbersome to change and risk becoming obsolete.

We remain fully committed to sharing of learning and knowledge dissemination. Gas Network Licensees are regularly revisiting their Innovation strategies and this is evidenced through their NIA Annual Summaries that are published. We feel that this annual review is sufficient in demonstrating to Ofgem that our strategies are evolving and remain relevant.

Question 2: What are your views on our proposals to help facilitate increased involvement of third parties in the NIC via the network companies?

We are surprised that OFGEM has taken the view that third party involvement in the gas network sector needs to be facilitated. We already engage widely with a wide variety of diverse organisations, including Micro SME's, Universities and large companies. This is clearly evidenced in our NIA and NIC portfolios where in 2015/16 more than 78%[2] of our projects are carried out with SMEs.

We proactively try to secure and reactively respond to innovation proposals throughout the year. The majority of our projects are generated from 'Calls for innovation' these can include formal RFI's and 'Invitations to Partner', at any given time we will have 2 or 3 of these in progress. We have issued over 50 such calls under the NIA to date.

[2] https://www.sgn.co.uk/uploadedFiles/Marketing/Pages/Publications/Docs-Innovation-NIA/SGN-NIA-Annual-Summary-2015-16.pdf

This forms a substantial proportion of our NIA portfolio and has ultimately led to successful NIC bids, such as Real-Time Networks. Over the same period we have received many project proposals in confidence from external parties outside of the call for tender, such as our successful Robotics NIC project. Of the projects that we did not progress the reasons for not progressing them were due to them either not being sufficiently innovative, compliant with the NIA/NIC governance or not being of sufficient value to the GB gas customer.

From our experience we are not convinced an open call for tender with a public response would deliver the intended outcome. Rather many of the parties we enter into discussion with regarding innovation projects look to do so on a confidential basis. Often this discussion may take place over a period of time as the project evolves and during this period we are able to provide a reliable point of reference and advice whilst maintaining full confidentiality until the point that a project is ready to apply for funding. Furthermore, if we are not the right network to progress the project the proposer are able to maintain confidentiality and approach one of the other networks. Making this information public may dissuade many potential project partners from coming forward.

By formalising this structure into a specific call for ideas we risk reducing the level of dialogue involved in inception of the innovation project. Rather there is a risk that the communication has to be structured and limited according to formal tendering guidelines otherwise the tendering network company may risk legal action. This will have a detrimental impact all round in terms of the quality of the projects, the benefits to the consumer and their applicability to the network.

We would wish to retain discretion regarding the number and scale of the bids we intend to submit and manage to ensure quality and relevance of projects.

Question 3: What are you views on providing direct access for third parties to the NIC?

As stated in our previous response to your consultation (Reviewing the benefits of the Low Carbon Networks Fund and the governance of the Network Innovation Competition and the Network Innovation Allowance) we do not think that providing 3rd Party access to innovation funding without a network company partner would deliver OFGEMs objectives innovation to;

- *"Generate new knowledge that can be shared among all network operators.*
- *Be cost effective and provide value for money to network customers.*
- *Accelerate the move to a low carbon energy sector and/or deliver environmental benefits, and potentially bring net financial benefits to network customers now and in the future."*[3]

Our reason for this is that Network Operators need to maintain management control over projects at all times to ensure conformity with licence conditions, safety and reliability standards. This particularly important for the gas networks where managing safety of fuel delivery to the customers premises in a manner that is consistent with the design parameters of the end equipment is of paramount importance.

When working with project partners we provide direct access to our expertise, assets and associated safety protocols allow problems and solutions to be well defined and demonstrated in a controlled and effective manner.

In addition to overcoming the safety barriers, we also reduce the financial barriers. We generally cover all third party project costs (particularly SMEs). Our projects are structured so as to manage cashflow as well as uncertainty of success. Third parties can be 100% de-risked on projects through the mechanism, gain direct access and support from the network licencee. This is evidenced in a number of NIA and NIC projects. For example our successful NIC robotics project.

[3] https://www.ofgem.gov.uk/system/files/docs/2016/11/innovation_competitions_brochure_to_upload.pdf

The stimulus mechanisms are for 'network' projects. Requiring a 10% contribution from third parties could restrict access for some SMEs and micro SMEs. This could also restrict Network Licensees ability to access funds for loss making demonstration projects, create unrealistic expectations of savings from projects and create delivery risk where projects would require trial and demonstration on the network.

In our experience projects delivered by the Network Licensees have the highest benefits and deliver the most value to consumers. There are many examples of organisations that purport to co-ordinate innovation projects and research and development programmes in the United Kingdom (UK), Europe and the United States (US). There is often a high cost associated with membership of these organisations and involvement in the specific projects. We would like to understand whether OFGEM has reviewed any of these organisations to identify whether they provide value money or effective project delivery, as this would be contrary to our own experience.

Direct access for third parties goes beyond the original policy rationale for introducing innovation schemes, which was to address disincentives in the price control framework for network companies to innovate. In our view this policy rationale has not changed.

There are also other funding streams that third parties can access that are perhaps more appropriate. In order to respond to this issue, we would appreciate discussion and review of specific examples.

Question 4: What are your views on our proposals to remove the Successful Delivery Reward and the provision to recover Bid Preparation Costs?

Removal of Successful Delivery Reward

Under the current NIC arrangements, Network Operators make a 10% contribution to the cost of projects. Network Operators can apply to have this contribution returned through the Successful Delivery Reward (SDR) when the project is completed. The SDR is a discretionary award that rewards efficient delivery and good project management.

The Successful Delivery Reward (SDR) is designed to encourage network licencees to carry out projects that they would not otherwise do as business as usual. This includes projects that are loss-making due to their technology readiness level or nature. Some of the largest potential benefits to the energy customer are driven by projects such as 'Opening up the Gas Market' and Hydeploy. If Hydrogen networks are to be developed and demonstrated, we feel that the current mechanism is appropriate. The projects will be loss making, but if the networks manage the project well against the criteria then some or all of this loss can be recovered.

This SDR has driven efficient delivery and agile project management to maximise consumer benefits that would not otherwise has taken place. It has delivered this by putting a definable deliverable on project managers through which their performance can be independently assessed. This sends a very strong signal to the project management team that helps to ensure effective and efficient project delivery at best value to the consumer. By removing this incentive it risk reduces some of the management focus on efficient project delivery, with adverse implications for consumer benefits in general.

Removing this incentive increases the project risk for the Network Licensee and therefore is contradictory with the strategic aims of the stimulus measures.

It should also be noted that the benefits of NIC projects are not limited to network efficiency savings. The Opening up the Gas Market project for example is of huge industry benefit. Removing SDRs could stifle this type of project where network shareholders cannot achieve return on their investment.

We view this as an important incentive for Network Licensees and we are not supportive of removing this.

Removal of Bid Preparation Costs

Currently we are afforded up to £175k, or 5% of our network innovation allowance to develop bids under the NIC process. This allows for the labour intensive nature of pulling together NIC bids and partner engagement to be recovered in a clear and transparent manner. We have utilised this mechanism as part of our three successful NIC bids.

Ultimately the bid preparation costs need to be covered by an organisation. It could be borne by the project either in a transparent manner by allowing for a clear budgeting process, or in a less transparent manner and recovering the bid cost through the project funding. We would clearly prefer a transparent structure.

By increasing the cost exposure of the network operating company OFGEM will encourage a more conservative approach to innovation. Shareholders will require a higher level of certainty of a return as their cost exposure increases. This reduces the likelihood that the more innovative projects will come through.

OFGEM point to this being an anomaly with other funding mechanisms, but an anomaly in itself is not a reason for change, other funding mechanisms incentivise bidders to recover bid costs in a less transparent manner through the project itself, rather than having it clearly stated at the outset.

The following answers address the questions for the future funding level of the electricity NIC:

Question 1: What are your views on the rationale for reducing the level of electricity NIC funding pot?

Based on the widespread recognition that Electrification of heat is unachievable at reasonable cost, rather than reduce the electricity funding, we suggest that it is opened to gas network operators in a joint competition or other form.

Question 2: What are your views on the proposed funding level of the electricity NIC?

We believe that innovation stimulus should be flexible between years and that gas and electric have access to the combined total, so that larger projects with significant potential for customer savings, such as Hydrogen, can be expedited.