Response to Ofgem RIIO-2 sector specific consultation on GD2

The Anaerobic Digestion and Bioresources Association (ADBA) is the trade association that represents the range of interests and matters related to the anaerobic digestion of organic materials (AD) across the UK, including the collection of waste for use as feedstock. ADBA understands the complex range of skills required by developers of new AD plants, from feedstock management through technology to energy production, markets and resource to land. ADBA is a founder member of the World Biogas Association.

The organisation has over 400 members from across the AD industry, including plant operators and developers, farmers, local authorities, waste management companies, supermarkets, food processors, energy and water companies, equipment manufacturers and suppliers, consultants, financiers and supporting service companies. Anaerobic digestion can make a significant contribution to renewable energy, climate change, and critical resource preservation targets, subject to the right policies being in place.

The UK's AD sector now produces approximately 13TWh of biogas 24 hours a day, 4.7TWh of which is upgraded into biomethane and injected into the gas grid to provide heat for over 350,000 homes. AD delivers an exceptional return on investment, including:

Low-carbon heat in homes, businesses and industry

AD already reduces the UK's carbon emissions by over 1% and could reduce them by as much as 5%. The CCC has consistently identified biomethane as a "low regret option", advising that greater quantities of the green gas is urgently required. The Department for Business, Energy and Industrial Strategy (BEIS) has recently reaffirmed the long-term strategic importance of biomethane.[1]

Cost effective carbon abatement

AD reduces emissions from rotting manure and farm wastes and slurries, as well as providing low-carbon biofertiliser. The CCC says that AD needs to be used more widely on farms if the UK is to meet the fifth carbon budget.

Energy security

AD is good for UK energy security. It is home grown and supplies are constant and reliable. AD is delivering home grown green energy now and can continue to do so. AD can contribute to energy security by delivering around 30% of domestic gas or electricity demand, whilst also reducing imports and curbing carbon emissions.

Meeting recycling targets

Anaerobic digestion is highlighted in the Government's Resources and Waste Strategy for England as representing "the best environmental outcome for food waste that cannot be prevented or be redistributed"[2]. To realise the ambitions of the Strategy and meet UK recycling targets mandatory separate food waste collections are required throughout the UK. This will require more food waste AD capacity to treat and recycle the resulting separated food waste, and support for local authorities in their adoption of suitable recycling practices.

Innovation, productivity and global competitiveness

A sector already employing between 3,500-4,000 people, with the potential to employ over 30,000 more, many in rural areas and manufacturing jobs, is worth protecting. A thriving UK sector can export to the world – the potential

[1] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/766109/decarbonising-heating.pdf [6.9]

[2] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/765914/resources-waste- strategy-dec-2018.pdf 71.

of the global AD market is estimated at £1trn. BSI and HSE standards are sold and adopted abroad providing the opportunity to pull through the UK AD supply chain which has developed over the last 5 years.

Outputs: Deliver an environmentally sustainable network

Question 26. What are your views on the overall outputs package considered for this output category?
We welcome Ofgem's strong encouragement in RIIO2 for networks to deliver an environmentally sustainable network but are concerned about the limited specific measures that are proposed to provide for this, and by the restrictions to certain possible outputs being placed upon the networks that may curtail their efforts in this area.

The enhanced stakeholder engagement process for RIIO2 that is now established is helpful and we believe this should direct the outputs of RIIO2 in a positive manner. However, it is important that the overall outputs package is able to respond to changing public attitudes towards decarbonisation and support for renewable energy, which according to the BEIS attitudes tracker was 82% in July 2018 and has remained around 80% for several years.[3] In addition to this, ENA research shows that 75% of people want the Government to prioritise the production and use of domestic green gas over imported fossil fuel gas.[4] While not an unequivocal statement that consumers are willing to pay for low-carbon heat it is an important consideration and one that calls for balance between Ofgem priorities of decarbonisation and keeping the costs of energy down. Such surveys suggest broad public support for adherence to the UK carbon budgets and the wider decarbonisation agenda and we believe Ofgem's suggested GDN outputs should allow the networks to do more to meet these objectives, proportionate to the public support.

Question 27. For each potential output considered (where relevant):
Though shrinkage is important we have only addressed heat decarbonisation in the below responses.

a) Is it of benefit to consumers, and why?
While GD2 only spans 2021-26 it is important that this next price control is situated within the context of both the wider economic reality of climate change and decarbonisation economics as well as the Climate Change Act and its carbon budgets. As BEIS recently recognised in the Clean Growth: Transforming Heat evidence review, "All approaches to decarbonising heat will require very substantial new capital investment in energy production and infrastructure."[5] We agree that it is appropriate that the need for new investments do not lead to stranded assets and that consumer impact is minimised. However, while this must be one guiding principle another should be minimising the cost of climate change. As was identified in the Stern Review, the economic benefits of transitioning to low carbon economies in the UK and globally are realised from action sooner rather than later, and avoided or minimised costs resulting from the mitigated effects of global climate change[6].

b) How, and at what level, should we set targets? (e.g. should these be relative/absolute)
We believe there should be an incentive on the networks to connect gas entry projects as quickly as possible, and to the request of the plant's output, year-round. This would give GDNs a driver to deliver capacity, with this being made available to low-carbon biomethane connections and other entry. We note that Cadent have submitted a gas entry capacity proposal and suggest avenues are made for support discussion with the wider industry on this and similar proposals over the coming months both as part of the RIIO2 process and as part of the wider work BEIS are undertaking on clean growth and heat decarbonisation.

c) What are your views on the design of the incentive? (e.g. reward/penalty/size of allowance)
Networks would get revenue for each kWh/scm made available but would pay compensation to the biomethane producer if the capacity was removed or restricted, including summer curtailment.

[3] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/734270/beis-public-attitudes-tracker-wave-26-key-findings.pdf 6.
[4] http://www.energynetworks.org/news/press-releases/2018/october/energy-networks-launch-new-code-to-help-deliver-bumper-levels-of-biomethane.html
[5] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/766109/decarbonising-heating.pdf 53.
[6] http://www.lse.ac.uk/GranthamInstitute/publication/the-economics-of-climate-change-the-stern-review

d) Where we set out options, what are your views on them and please explain whether there are further options we should consider?

We address this question dedicated heat decarbonisation questions below, see question 31.

Question 28. What other outputs should we be considering, if any?

As discussed in our answer to question 27 b) we think there should be an incentive for networks to connect new gas entry such as biomethane plant as quickly as possible. This would support network requirements for reinforcement, compression and storage, but also an incentive (a reputational element) to connect new entry as quickly as possible and reduce costs of connection.

We believe it is appropriate that to the extent that such requirements not only support the connecting biomethane plant but also then strengthen the network e.g. so it can respond to the increasing demands of peaking power, such costs should be socialised. This is not socialising the cost of connection per se, but the wider network reinforcement that may be required to allow for the connection. The networks have an established economic test for connections for such sites that are taking gas, as per the Uniformed Network Code, but there is none for entry currently.

Not having any output for biomethane represents a barrier to investment in new green gas.

We do note, however, that the transmission specific annex of the consultation recognises the need for the NTS to "ensure that the NTS is sufficiently flexible to accommodate new and more diverse sources of gas supply". While this is rightly the case, it is disappointing that that such a drive for flexibility is not being recognised within the GD annex. This is surprising since all but one of the current biomethane connections have been at the distribution level and future plants would likely follow a similar model.

Question 29. What are your views on the RIIO-GD1 outputs that we propose to remove?

We believe Ofgem should maintain the output of reporting biomethane connections and connection studies as continuing this current requirement will demonstrate GDN support for heat decarbonisation in respect of biomethane as well as that from the biomethane industry.

Question 30. What are your views on the priorities we've identified for the gas distribution sector in delivering an environmentally sustainable network? Should measures proposed for electricity and gas transmission, such as BCF reporting and strategies for including in Business Plans, also apply to gas distribution?

No comment.

Question 31. Do you agree with our proposed approaches to funding GDN activities over RIIO-GD2 related to heat decarbonisation?

We note the uncertainty as described in the GD2 Annex, that the yet to be determined decarbonisation pathway GB will follow may have different implications for the GDNs[7]. However, while it is important that the long-term decisions are borne in mind, the heat sector is currently emitting 173.16 million tonnes of CO_2e each year, which is reducing the likelihood of meeting our international obligations pursuant to the Paris Agreement. GD2 should not frustrate efforts that can be taken in the interim and should facilitate decarbonisation.

Biomethane offers a proven technology to decarbonise the gas grid and, outside of energy efficiency measures, is the only technology that has made a meaningful contribution to gas grid decarbonisation to date. The biomethane-to-grid industry will have made significant progress during the 2010s but without further support this growth will end. The AD industry has recently seen the 100th biomethane plant connect to the gas grid and has the capacity to provide 4.7TWh green gas to UK households. Though the wholesale price of gas (currently approximately 2 p/

[7] https://www.ofgem.gov.uk/system/files/docs/2018/12/riio-gd2_sector_annex_0.pdf [4.25]

kWh) is not sufficient to incentivise further deployment and there are no carbon pricing policies proposed to increase this, biomethane is certainly one of the success stories of the RHI with projects commissioning at tariffs 33% below the tariff peak. Yet the AD industry still requires support to reach our ambition for the industry, to provide around 75TWh of renewable energy by 2030.

Since 2016's Next Steps for UK Heat Policy, the Committee on Climate Change (CCC) has consistently called for greater production of biomethane, identifying it as a "low-regret option". The CCC's 2018 Report to Parliament called for a decision before the end of 2018 on the "support framework for heat pumps and biomethane post-2021" and their 2019 report UK housing: Fit for the future? once again identifies biomethane as one its "low-regret routes to reducing emissions from heating buildings that the Government should pursue immediately"[8]. While ongoing funding for the Renewable Heat Incentive (RHI) is essential to meeting the UK's carbon budgets and its heating, renewable energy and greenhouse gas targets, GDNs must be supported in connecting biomethane plants – which is even more important in the absence of the RHI in the early 2020s, when GD2 spans.

As well helping to decarbonise the gas grid and heat sector now, support for biomethane also paves the way for other green gases such as bioSNG and hydrogen. Many of the investors, developers and engineers operating in the biomethane industry today will be those that help grow the wider green gas industry in subsequent price control periods.

Heat policy re-opener

In respect of the heat policy re-opener, we note the government's Spring Statement where the Chancellor announced that:

> to help meet climate targets, the government will advance the decarbonisation of gas supplies by increasing the proportion of green gas in the grid, helping to reduce dependence on burning natural gas in homes and businesses.

This goes a long way towards the suggested 'trigger event', a "substantial development in central government policy which has heat decarbonisation as an objective and which was likely to have a significant impact on the GDNs' expenditure needs"[9]. Though the announcement cannot be equated to the "passage of legislation", and though it does not determine expected GDN expenditure it does make it very clear that the government is supportive of green gas and that new policy may be in place by the time GD2 begins. As such it is appropriate that the price controls are facilitative, and that any re-opener is made possible from this point onwards.

A related issue is anticipatory investment. While we appreciate the need for GDN expenditure needs to be based on certain policy, if the re-opener is only able to be activated at the end of the legislative process there will be further delay (and carbon emitted) while supply chains are strengthened, planning permissions are sought, and plant developed and built out.

Wider government policy support for biomethane

An important consideration overlooked in the consultation is the degree to which other government policy is predicated on the continued growth of the biomethane industry. It is important that GD2 is facilitative of this policy and does not frustrate it. We illustrate two important areas here, food waste and transport decarbonisation.

Anaerobic digestion is highlighted in the Government's Resources and Waste Strategy for England as representing "the best environmental outcome for food waste that cannot be prevented or be redistributed"[10]. To realise the ambitions of the Strategy and meet UK recycling targets mandatory separate food waste collections are required

[8] https://www.theccc.org.uk/wp-content/uploads/2019/02/UK-housing-Fit-for-the-future-CCC-2019.pdf 49.
[9] https://www.ofgem.gov.uk/system/files/docs/2018/12/riio-gd2_sector_annex_0.pdf [4.38]
[10] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/765914/resources-waste-strategy-dec-2018.pdf 71.

throughout the UK. This will require more food waste AD capacity to treat and recycle the resulting separated food waste, and support for local authorities in their adoption of suitable recycling practices.

Biomethane and use of the gas grid for decarbonisation of the transport sector is supported by much existing government policy, including the Renewable Transport Fuel Obligation, the Motorfuel Greenhouse Gas Reporting Regulations, along with government funds for Low and Ultra Low Emission Buses and the Bus Service Operators Grant. While we understand the need for Ofgem to put in place consumer protections in respect of heat decarbonisation pathways that remain undetermined for GD2, there is certain government policy encouraging use of the gas grid in this wider role.

The Renewable Transport Fuel Obligation legislation came into effect in April 2018 establishing policy that forms part of the government's 15-year strategy for renewable transport fuels, which it hopes will build a firm platform for investment to develop sustainable advanced fuels. With an obligation that will support transport fuels such as biomethane rising until 2032 and continuing at a steady level from them onwards, this policy clearly goes well beyond the GD2 price control.

There are three principle barriers in respect of the current limitations on network support for biomethane; these should be addressed in GD2.

Lack of standardisation on grid entry unit specification. It is currently the case that the four GDNs have different specifications for biomethane connections. While all comply strictly with statutory and regulatory frameworks (including health and safety considerations) different connection arrangements, cost elements, charges and timescales involved, engineering and other technical matters relevant to the commissioning, injection and maintenance of such connections all lead to unnecessary costs on the part of the biomethane developer.

We note the ENA's Biomethane Connections Code which is underway to:

1. Introduce a standard way of connecting plants across all areas of Great Britain, so that biomethane developers have only one process to follow wherever they are
2. Share resources between them as much as possible, to ensure that plants are connected as quickly as possible while maintaining the UK industry's world-leading standards of safety
3. Be fully transparent with biomethane developers about the speed and resources available to deliver connections, to make the connections process up to the January 2020 deadline as smooth as possible.[11]

To this end we would encourage RIIO2 GD2 to include an incentive for a faster transition to standardisation.

Capacity constraints. As discussed above in our response to question 27 we believe there should be an incentive on the networks to connect gas entry projects as quickly as possible and to the request of the plant's output, year-round. This would give GDNs a driver to deliver capacity, with this being made available to low-carbon biomethane connections and other entry. ADBA has been made aware of several instances in which connected biomethane plants have been constrained during summer months.[12]

Innovation. We believe support for innovation should be expanded in GD2, any restrictions to it would create a barrier to the greening of the gas grid. The Network Innovation Competitions (NICs) for electricity and gas help develop crucial knowledge and expertise to share across the industry. NIC applications are assessed to ensure they are cost-effective and provide value for money to customers. Importantly, they must also meet the NIC criterion of accelerating the move to a low carbon energy sector and/or delivering environmental benefits.

[11] http://www.energynetworks.org/news/press-releases/2018/october/energy-networks-launch-new-code-to-help-deliver-bumper-levels-of-biomethane.html

[12] Due to commercial sensitives we have been unable to provide these details with this response but can arrange meetings between Ofgem and those impacted if of interest.

It is already the case that worthwhile applications for NIC funding are denied due to overly narrow assessment criteria, with projects required to demonstrate: "innovation", that they are "robust and ready to implement", "involve partner organisations" and must be "relevant and timely"[13]. A broader criterion would ensure that research, innovation and commercialisation efforts can be pursued. This latter point is especially important with proposals in RIIO2 to remove the Innovation Roll-out Mechanism.

Question 32. Are the GDNs Distributed Gas Connection Guides and distributed gas information strategies helpful and effective? If not, how could they be improved?

We believe such Guides and the GDN strategies are helpful and effective and that the Biomethane Connections Code and ongoing standardisation efforts should continue into GD2. Lessons can be learned from the electricity sector where DNOs have far stronger incentives to connect low-carbon generators quickly and to the costs of doing so.

ADBA would like to thank Ofgem for the opportunity to engage with them on networks price controls.

[13] https://www.ofgem.gov.uk/system/files/docs/2017/11/ofg1031_innovation_competitions_brochure_web.pdf 2.