

RESPONSE TO NATIONAL GRID GAS DISTRIBUTION CONSULTATION ON FUTURE BILLING METHODOLOGY

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.

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 will make a significant contribution to renewable energy, climate change, and critical resource preservation targets, subject to the right policies being in place.

Consultation questions

Question 1. Do you agree that the existing LDZ FWACV methodology presents a barrier to a low carbon gas future and that alternative methodologies should be explored? Agree.

Please treat answer as confidential (delete as appropriate) No.

Reasoning

We support the Future Billing Methodology proof of concept project. Pre-processing of gas sources besides North Sea Gas to adjust calorific value (CV) to meet the current dominant source requires, for biomethane, the addition of high carbon, fossil-based propane. This works to undo many of the low carbon benefits biomethane from AD delivers. In addition, the cost of propanation presents a barrier to investment in biomethane.

Biomethane produced from AD replaces natural gas in our heating supplies with no need for consumers to change technology or behaviour. Biomethane is an indigenous source of gas, reducing reliance on imports and complementing weather-dependent intermittent renewable energy technologies.

With around 100 plants in operation millions of people throughout the UK have the potential to use renewable heat generated through AD. It is important that any barriers to biomethane are removed to continue the decarbonisation of the gas grid.

With the right policies in place to support research and development of new feedstocks we estimate that by 2030 the AD industry could generate around 35TWh by 2020-25 and around 80TWh by 2030-35 with the addition of renewable hydrogen.¹ We support alternative methodologies that encourage rather than discourage low carbon, Gas Safety (Management) Regulations compliant gases being used in the gas grid.

Low carbon credentials

The AD industry already has the capacity to generate almost half of the UK's renewable heat output, largely thanks to Renewable Heat Incentive (RHI) support for biomethane for grid injection. Biomethane produced from AD replaces natural gas in our heating supplies with no need for consumers to change technology or behaviour. Under the RHI significant quantities of fossil fuels are being displaced, with more than 250,000 tonnes of carbon already being abated each year from biomethane generation. This is equivalent to taking almost 100,000 cars off the road each year. Accordingly, all efforts to increase the proportion of biomethane on the gas grid should be encouraged.

¹ See below, our response to question 2.

Biomethane from AD could reduce the UK's carbon emissions by 4%. Our calculations suggest that continuing to support the technology would reduce government expenditure by £755m from 2017 to 2040 in GHG abatement, compared to the average renewable heat technology.

Providing energy security

Biomethane is good for UK energy security. It is generated in the UK and supplies are constant and reliable. AD is already delivering significant amounts of home grown green electricity and gas now and has the potential to deliver around 30% of domestic electricity or gas demand, while also reducing imports, curbing carbon emissions and improving UK Balance of Payments.

In National Grid's Future Energy Scenarios 2016 report all four scenarios show gas demand as expected to decrease by 2040.² At the same time, demand will reduce due to appliance efficiency savings, such as smart controls and improved boilers and thermal efficiencies. Together, this means that green gas from **AD could provide for 30% of the UK gas domestic demand within 15 years.**

Non-energy benefits

As well as cutting emissions and providing renewable gas AD has several additional co-benefits. We encourage a re-consideration of the current billing methodology to ensure biomethane plants continue to commission and that the non-energy benefits of AD can also be delivered. These benefits include:

- Reducing emissions from rotting manure and farm wastes and slurries – abating significant amounts of carbon;
- Supporting farmers by diversifying their income, recycling nutrients back to farmland to support food production;
- Providing a waste management solution for sewage, used by the majority of treatment facilities across the UK, as well as food waste.³
- Strengthening the rural economy by creating jobs with the industry currently employing 3,500 people and having the potential to employ a further 30,000;
- Providing baseload, indigenous energy to improve UK energy security; and,
- Developing low carbon technology and expertise to export to the global biogas market that is estimated to be worth £1 trillion.

Question 2. Do you agree that the Future Billing Methodology Project could provide the basis to deliver an economical and sustainable pathway to decarbonising heat for 2030 and 2050? Agree.

Please treat answer as confidential (delete as appropriate) No.

Reasoning

We support the Future Billing Methodology Project in the removal of barriers to further biomethane deployment. As the below sources suggest AD and the generation of biomethane should be encouraged, it presents a carbon cost effective source of gas, crucial in the short to medium term decarbonisation of heat:

- Support for technologies such as AD is necessary to deliver carbon abatement and decarbonise the heat supply to buildings, with the Committee on Climate Change regarding increases to the volume biomethane injection into the gas grid as a “low-regret opportunity”.⁴

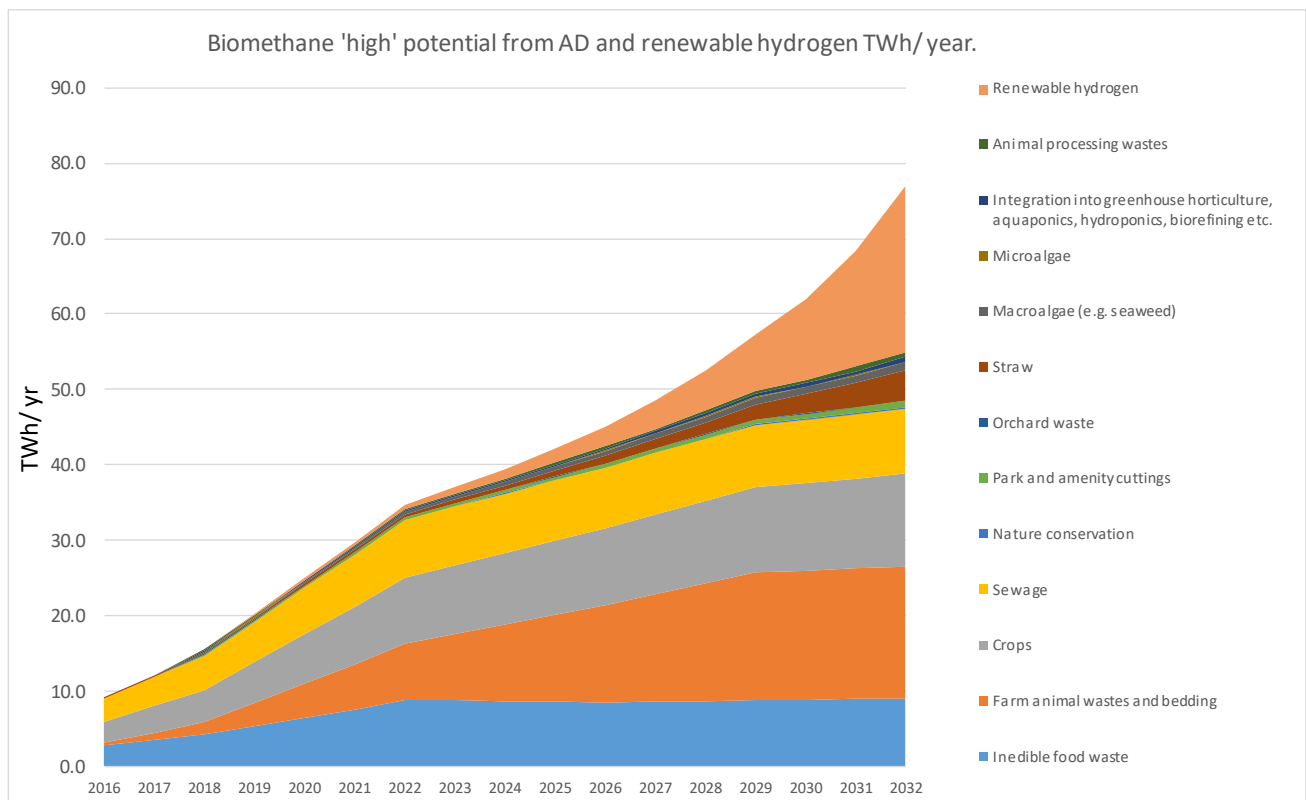
² National Grid, Future Energy Scenarios 2016, 24.

³ Ofwat reports AD treatment for 75% of UK sewage sludge. https://www.ofwat.gov.uk/wp-content/uploads/2015/12/pap_tec20151210water2020app1.pdf 4.

⁴ <https://www.theccc.org.uk/wp-content/uploads/2016/10/Next-steps-for-UK-heat-policy-Committee-on-Climate-Change-October-2016.pdf> 7.

- KPMG has estimated that using green gas and existing infrastructure is 2-3 times cheaper than other scenarios for delivering heat.⁵
- Policy Exchange also encourage expansion in biomethane for grid injection, noting that biomethane “goes with the grain of consumer preferences and minimises costs to the consumer.”⁶
- The Energy and Climate Change Committee identified “biomethane as critical to the 2020 [12% heat sub-target].”⁷

As the below chart shows, with the right support and with removal of barriers to deployment, by 2030 the AD industry could generate around 35TWh by 2020-25 from existing feedstocks, and around 80TWh by 2030-35 as new feedstocks are developed to deliver renewable biomethane.



Question 3. Do you agree that the proposed Measurement and Validation Field Trials could provide an understanding of the modelled zones of influence of LDZ-embedded gas entry points? Agree.

Please treat answer as confidential (delete as appropriate) No.

Reasoning

We do not have any scientific/technical reasoning to contribute.

Question 4. If your answer to Q2 and or Q3 was “Disagree”, what alternative or modified approach would you like to see considered? Not applicable.

⁵ <http://www.energynetworks.org/assets/files/gas/futures/KPMG%20Future%20of%20Gas%20Main%20report%20plus%20appendices%20FINAL.pdf>

⁶ <http://www.policyexchange.org.uk/images/publications/too%20hot%20to%20handle%20-%20sept%202016.pdf> 10-11.

⁷ <http://www.publications.parliament.uk/pa/cm201617/cmselect/cmenergy/173/173.pdf> 3.

Question 5. What factors and impacts would you like to see considered through the Future Billing Methodology Project?

Please treat answer as confidential (delete as appropriate) No.

We would be interested in seeing a comprehensive carbon reduction assessment in subsequent stages of the project. This would build on the analysis cited suggesting that the project would deliver a CO₂ saving of between 1 and 2 million tonnes CO₂. We believe the project would be strengthened if further analysis was done into the potential carbon savings that changes to billing could make.

In relation to smart meters and consumer billing it would also be interesting for the project to consider interaction with electric smart meters.

Question 6. If implemented, how would the suggested changes to the existing LDZ FWACV billing regime benefit your company/organisation, e.g. what savings would the changes bring?

Please treat answer as confidential (delete as appropriate) No

Reasoning

Changes to the existing local distribution zone flow weighted average billing regime could increase the low carbon credential element of biomethane (the other element being the physical methane gas). This would further stimulate the demand for low carbon gases on the grid, helping achieve government Carbon Budget targets.

The UK AD and bioresources industry has pioneered the Biomethane Certification Scheme (BMCS), an independent certification scheme ("ICS") run by Green Gas Trading Limited. Green Gas Trading provides both a credible process for certifying biomethane and a trading platform to facilitate the trading of certificates. The biomethane certificates issued under the scheme can be traded separately from the physical commodity gas. This allows the certificate owner to transact the physical commodity at the market price for that product whilst seeking the highest economic value for the Biomethane Certificate ("BMC"). Trading the gas and the certificates separately makes it possible to maximise the value of this exceedingly low carbon, green gas at a market determined price.

Question 7. Do you envisage any legal or regulatory issues arising if any of the Future Billing Methodology options were to be implemented?

Please treat answer as confidential (delete as appropriate) No

Reasoning

If the proof of concept is successful and the Project is rolled out nationwide we do not envisage legal issues arising as the GS(M)R already stipulate certain requirements that would continue to regulate quality and ensure safety.

Regulatory guidance may be required to ensure that gas suppliers are charging their customers per the CV of the actual gas used at particular times and not merely on the flow-weighted average CV.

Question 8. Do you have any other comments on the Future Billing Methodology Project? (e.g. issues not covered in this document) No additional comments.