

25th November 2019

Biofuels Consultation
Heat & Transport Energy Policy
Department of Communications, Climate Action and Environment
29-31 Adelaide Road
Dublin 2
D02 X285

Dear Sir/Madam

RE: Consultation on the Biofuels Obligation Scheme

Bord Gáis Energy (BGE) as a supplier of natural gas is responding to the Department of Communications, Climate Action and Environment (DCCAE) consultation on the *Biofuels Obligation Scheme*. While acknowledging the effectiveness of the biofuels obligation in transport the differences within the heating sector need to be recognised. The biofuels required in the heating sector are different and for biomethane in particular, the supply chains are insufficient and the market under-developed. The major points we wish to raise centre on our capability as natural gas suppliers to comply with a biofuel obligation, the costs an obligation would impose on consumers and the suitability of an obligation scheme in cost-effectively reducing emissions.

In responding to this consultation BGE is focused on the suggestion that the biofuel obligation may be expanded from the transport sector to also include heating fuels. As the obligations expansion is currently only a proposal we feel that it is unnecessary to comment on how it will be applied in the transport sector. As such we are responding to question 16 only. If the biofuel obligation was applied to the heating sector we feel a more in-depth assessment and consultation would be required. There are significant differences between the markets and fuel types used in heating and transport and a direct translation of the currently operational scheme would not be appropriate.

The substance of our response is contained in our reply to question 16 (a), with more perfunctory responses to the sub-questions (b) and (c). We have taken the opportunity as suggested to outline our reasoning in detail.

Question 16:

(a) What is your opinion on the potential for an obligation scheme (similar to the Biofuels Obligation Scheme) in the heat sector?

BGE is keenly aware of the need to decarbonize heating, particularly as Ireland works towards its 2050 decarbonization goals which may involve carbon neutrality. In the medium term we are also aware of the challenges Ireland will face in meeting the required 2030 emission reductions. The failure to meet our 2020 targets has increased this challenge and doing so in a cost-effective manner is essential. However, we have concerns about the practicalities and impacts of introducing a biofuel obligation to the heating sector at present. Our concerns focus on three areas, firstly our ability to comply with a biofuel obligation, secondly the costs of doing so and finally whether this policy is a cost-effective way

of meeting our climate targets. As natural gas suppliers, we can comply with a biofuel obligation by using biomethane. However, from our perspective the biomethane industry within Ireland is currently not developed enough to support an obligation scheme. While encouraging its development is of strategic importance to BGE, we question whether an obligation scheme is the best policy to do so. Evidence from Ireland and internationally in encouraging renewable energy has shown that stability and certainty are required to attract investment, security that a biofuel obligation by itself does not provide. The costs imposed by a biofuel obligation would be significant and ultimately borne by consumers. This point is important to emphasise as the broader distributional impacts of increased heating costs and the effect on those in fuel poverty must be considered. As the most carbon efficient of the fossil fuels natural gas has a significant role to play in meeting our 2030 targets, however the challenges imposed by an obligation scheme may limit its ability to do so. Finally, given the limited supply of biomethane, consideration must be given to where it is best utilised. It can contribute to heating or transport sectors but in the medium term the supply will be insufficient for both. We shall elaborate on these points further but in our view the imposition of a biofuel obligation on natural gas suppliers at the moment is premature.

Biomethane Supply

There is no appreciable biomethane industry in Ireland currently. The few production sites in operation are a proof of concept but provide nowhere near the supply of biomethane that would be required. Excluding electricity generation natural gas supplied approximately 21.5 TWh of energy in Ireland in 2018¹. Even a small obligation rate placed on natural gas suppliers would require annual production of hundreds of GWh of biomethane. The SEAI has estimated that between 0.31 TWh and 1.275 TWh of biomethane could potentially be produced domestically by 2030². These production figures are weighted towards 2030 with significant ramp-up times, given that an entirely new industry and supporting supply chains need to be created. The lack of a domestic biomethane industry is compounded by the absence of a developed international market to purchase or import biomethane. Due to these factors natural gas suppliers would have a very limited ability to comply with an obligation scheme if one was introduced.

While it may be tempting to see an obligation scheme as the method by which to help the development of Ireland's nascent biomethane industry we question the evidence for this. The biofuel obligation has certainly helped sustain and develop the biofuels sector across Europe but the level of investment and support prior to the obligation schemes must be understood. Prior to the introduction of the biofuel obligation millions of tonnes of biodiesel and ethanol were being produced and traded internationally. The development of the industry to that point had relied on numerous and extensive supports provided by governments across the developed world. The biofuel obligation helped to support an already established industry not develop an entirely new one. The development of an indigenous biomethane industry is a strategic interest for BGE and as such we wish to see it develop in as cost-effective and successful manner as possible.

Costs of an obligation scheme

¹ 2018 Electricity and Gas Retail Markets Annual Report, CRU, 2019.

² Assessment of Cost and Benefits of Biogas and Biomethane in Ireland, SEAI, 2017.

In considering an obligation scheme it is important to understand the extra costs that will be ultimately borne by consumers. Biomethane under optimistic estimates is expected to be produced at 300% the price of natural gas³. This would be a significant increased cost to be borne but the lack of supply means that costs may be much higher. Without the ability to comply with the obligation directly gas suppliers would be required to either purchase credits from other obligated parties or pay the buy-out fee. Given the changes in the overall biofuel obligation scheme the potential cost of purchasing credits from other suppliers is uncertain. Meeting the obligation by paying the buy-out fee would be punitive especially considering the increases in the buy-out fee to 2030. Under any of the above outcomes natural gas customers are going to face substantial increased costs. It should be recognised that while gas demand is relatively inelastic, lower income households are much more sensitive to price changes. A rise in prices is likely to lead to those at risk of fuel poverty living in colder homes

The impact that a biofuel obligation would have on the cost of natural gas relative to its primary competitor, heating oil, should also be recognised. Heating oil can and has been blended with biodiesel, a biofuel for which there is an extensive industry and global market. The costs of complying with an obligation scheme are likely to be much higher for gas suppliers relative to heating oil and as such for natural gas consumers. Given the lower carbon emissions of natural gas, it being more heavily penalised appears to contradict government policy. The logic of the carbon tax is to penalise based on the scale of emissions where a biofuel obligation would result in the opposite.

Tackling emissions cost-effectively.

The heating fuel mix within the residential sector in Ireland differs from that in other European countries. The modal share of gas is lower and that of oil is greater, with a minority of houses still using coal and peat as their primary fuel sources. Gas is the most carbon efficient of the fossil fuels, offering 20% lower emissions than its nearest competitor oil. The difference in modal share of gas is a contributing factor to the high emissions per house in Ireland relative to comparable EU nations. A biofuel obligation would impose greater costs on gas suppliers and consumers relative to the alternatives. When the pressing objective is to reduce emissions, penalising the most carbon efficient fuel so heavily is counter-productive, preventing uptake and even incentivising users to switch to more polluting fuels. Within Ireland there is still scope for up to 300,000 houses to switch to using gas heating without expansion of the network⁴. This would reduce each house's emissions by approximately 20%, achieving similar emission reductions by other means would be far more expensive. As a biomethane industry develops these savings could be increased substantially as renewable gas enters the network. We recognise and support that the Climate Action Plan has extensive plans for electrification of the heating sector via heat pump. To facilitate this switch however will require large numbers of deep retrofits. This will require significant capital investment and time due to the nature of the work and a shortage of skilled workers. Natural gas can complement this switch as a very cost-effective method of reducing emissions in the medium term for those houses close to the grid.

Lastly consideration needs to be given to the best use of the limited biomethane resource available. Government policies exist for the introduction of CNG engines into the HGV fleet, with the future

³ An Integrated Business Case for Biomethane in Ireland, KPMG for the Renewable Gas Forum Ireland, 2019, further detail available on request.

⁴ Ireland's 2030 Greenhouse Gas Emissions Target – An Assessment of Feasibility and Costs, IAE, 2017.

potential to utilise biomethane. This would lead to substantial emissions reductions while also tackling a section of road transport not amenable to electrification. From our research any given quantity of biomethane has twice the emission reductions potential when utilised by HGVs compared to utilising it in residential heating. Given the shortage of biomethane in the medium term we question the effectiveness of enforcing its usage in the heating sector. This will increase the market price of biomethane and disincentivise its use in the transport sector. With an insufficient supply of biomethane a decision needs to be made about where its use should be prioritised.

Conclusion

Natural gas is recognised as a transitional fuel, especially in the electricity sector where it will play a role for the coming decades in enabling increased renewable levels. This is due to technological limitations, the enormous costs of trying to decarbonise more quickly and the emissions profile of natural gas. The lower emissions of natural gas should be exploited in the medium term to help us meet our challenging non-ETS reduction targets. To allow natural gas to do so in heating it is imperative that it is not financially penalised relative to its fossil fuel competitors. While cognisant of the desire to decarbonise sectors of the economy immediately, we must draw attention to the practicalities and costs of doing so. A biofuel obligation will impose large costs on natural gas consumers for limited benefits. We are also sceptical that these high costs would provide the support needed to develop a native biomethane industry and succeed in introducing appreciable quantities of renewable gas to the network. Given these issues and accounting for the lower emissions of natural gas we suggest an exemption from a biofuel obligation, if it is introduced, may be justifiable in the medium term. Whether natural gas plays a role further into the future is dependent on the gas networks ability to decarbonise cost effectively. At present biomethane appears the most viable pathway to doing so but a proper roadmap and funding to develop the industry is required. In the future where a biomethane supply chain and industry exists an obligation scheme may be appropriate.

(b) What do you see as the technical barriers to introducing such a scheme?

Biomethane and natural gas are chemically identical and can be used interchangeably. As such technical issues around blending, compatibility and impacts on infrastructure are absent. The practical problems surrounding biomethane use in the heating sector in Ireland centre around the available supply and cost.

(c) If a heat obligation scheme was to be introduced, what level of obligation (e.g. in percentage or energy terms) would be appropriate?

If the biofuel obligation scheme was to be extended to the heating sector despite our concerns the obligation rate and timing would have to be carefully considered. Our response has highlighted the issues around the supply of biomethane both now and in the medium term. The scope for gas suppliers to comply with even a very low obligation rate in the next five years is small. A new biomethane industry would need to be created, requiring careful planning, large investments and long timelines before significant production will be available. Given these issues an exemption for natural gas may be

required. Realistic estimates of potential production over the next decade are needed to begin considering effective and equitable obligation rates.

Yours sincerely,

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Bord Gáis Energy

(By email)