



Renewable Heat Obligation,
Business Energy & Gas Policy Team,
Department of the Environment, Climate and Communications,
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By email

BHSL Waste Solutions

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From: jack.oconnor@bhsl.com

To: RenewableHeat@decc.gov.ie

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BHSL Response to “Introduction of a Renewable Heat Obligation Consultation”

Dear Sir, Madam,

We welcome this initiative by your department and thank you for the opportunity to contribute to the consultation process on the “Introduction of a Renewable Heat Obligation Scheme”.

Our company, BHSL, has a long track record in renewables, in particular, the supply of renewable heat from biogenic residues, animal by products and wastes into heat intensive industries helping them to reduce their carbon footprint and future proof their energy requirements by replacing the reliance on imported fossil fuels.

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The opportunity for Ireland to transform its heat sector from fossil to renewables based is both immense and timely with many indigenous companies such as BHSL leading the way in the necessary regulatory and technical challenges to achieve this.

BHSL has spearheaded the EU regulatory changes to declassify sustainable fuels such as locally generated manures and other residues from a waste category to animal by product regulations promoting their use as fuels in combustion to provide sustainable energy locally and, in the process, enabling the recovery of valuable phosphorous and other organic nutrients. The BHSL remotely operated fluidised bed technology has been developed in Ireland to specifically comply with these new regulations and provides large users of heat both an economic and environmental platform to convert from fossil to renewable fuels sustainably.

As Ireland struggled to implement renewable energy policy and appropriate incentives to meet Government and EU energy and climate change targets, BHSL focused much of its business in other countries such as UK, France and other regions where such climate change policies and incentives created a major renewable heat industry there since 2010. With much data and knowledge gleaned from multiple operations from sites in these regions, BHSL has gained a deep knowledge in this renewable sector and is well placed to contribute to the discussions on the necessary requirements that Ireland need to urgently put in place to meet its obligations.

While the Support Scheme for Renewable Heat, (SSRH), was a positive step in promoting renewable heat in Ireland, it has struggled to achieve real take up in much of the heat intensive industries for many reasons. Compared with the impact of the Renewable Heat Incentive, (RHI), in the UK, it falls well behind in the amount of business generated in this sector here in Ireland.

Some general comments on the RHO:

- The consultation document refers to the Renewable Energy Directive for the definition of renewable energy and the criteria to be used in deciding what are sustainable fuels quoting, “bioliquid, biomass, and green hydrogen”. The document seems to promote the production of biomethane and AD technology over other well proven technologies. While Ireland lags behind the rest of Europe in the roll out of AD technology, we cannot now use RHOs or other incentives as a fast track mechanism to promote AD with less or minimal emphasis on the other technologies that have proven themselves or have emerged in the meantime. Wetting dry feedstocks to recover biomethane in an AD plant is not an efficient energy recovery process.
- BHSL has proven how its FBC technology can be applied to many waste streams in a manner that maximises the benefits to the environment, humans, and animals. We want to emphasise that the relatively new EU animal by product, (ABP)

regulations makes the legislative case for these ABPs to be included in this list with biomasses and biogenic residues.

- Setting 400 GWh as a threshold for obligation sends a very wrong signal. A supplier of oil would need to have up to 33,000 homes on their books to be obliged. Very few oil suppliers are anywhere near this number in Ireland and therefore get a free pass unless the importers of oil are obligated party. It suggests the RHO is targeting the major gas suppliers and, by extension, promoting biomethane injection to deal with our over reliance on fossil fuel. Over reliance on oil for heating can be easily dealt with by promoting high efficiency thermal treatment technologies.

Q1: Do you think that a Renewable Heat Obligation (RHO) is an appropriate measure to introduce?

BHSL Response: The RHO if properly designed and implemented is an appropriate measure to increase the use of renewable heat. However, lessons need to be learned from the implementation of the biofuel obligation scheme (BOS). Due to the design of the BOS almost all production was driven abroad, and indigenous production was effectively eliminated. The RHO scheme needs to introduce an open market facility for obligation certificates. The design of the scheme needs to ensure that control of the measure does not lie in the hands of the fossil fuel suppliers, but that free market forces ensure that both suppliers of renewable energy and the fossil fuel suppliers have equal impact on the market.

Q2: If not, what alternative measures would you consider appropriate to increase the use of renewable energy in the heat sector?

BHSL Response: Direct policy measures to encourage and stimulate the renewable heat market are also required. Policy support measures such as the Support Scheme for Renewable Heat need to continue in parallel with an obligation scheme until such time as there is significant penetration of renewable heat into the market. Longer term, it does not make sense to base the promotion of renewables based on fossil fuel measures, for example having an obligation requirement of above 50% would not make sense.

Q3: Do you agree that the obligation should apply to all non-renewable fossil fuels used for heating as set out above?

BHSL Response: Yes, the obligation should apply to all non-renewable fuels.

Q4: It is intended that electricity used for heating purposes and renewable/waste district heating systems would be exempt from this obligation, do you agree with this approach?

BHSL Response: We agree that all renewable and waste heat should be exempt. In terms of electricity used for heating, on the assumption that the electricity suppliers will be the obligated party, then the exemption should only apply to renewable electricity. Suppliers already report their

percentages of renewable electricity in their mix so it would be easy to apply the exemption and RHO to this proportion. The Department must ensure the RHO is not subject to various forms of “Gaming”. A risk of gaming exists where if a wide exemption is given to the supply of electricity then the suppliers could concentrate their fossil fuel portion of electricity on heating while still being exempt from the RHO.

Q5: Do you agree that the portion of fossil fuel input used in CHP plants to generate heat would be considered to be part of the obligation?

BHSL Response: Yes, otherwise CHP systems could be installed purely to avoid the RHO and would result in an increase in emissions.

Q6: Are energy suppliers the most appropriate bodies to become the obligated parties in the heat sector?

Options would be either the suppliers or importers are the obligated party, see below.

Item	Advantages	Disadvantage
Suppliers ('000s of suppliers from gas suppliers, oil delivery companies, solid fuel merchants)	Far more likely for renewable energy suppliers to be able to deal directly with suppliers	The 400GWh limit will exempt huge portions of the market
Importers (Small number such as larger oil distributors and gas grid operators)	Easy to administer Likely to place RHO on the vast majority of the market	Importers will seek quick solutions and are likely to consider mass procurement of renewable fuel from international parties

Q7: Is the 400 GWh of energy supplied an appropriate level for a supplier to become obligated?

BHSL Response: The 400 GWh limit is far too high. This threshold would encourage considerable gaming of the system. 400 GWh is sufficient to supply circa 33,000 homes with heat. This would mean that many suppliers of fossil fuels including heating oil, coal etc will be exempt from the RHO, as will some of the smaller gas supply companies. This 400GWh limit would likely leave the RHO meaningless for most of the heating market, thus reducing its impact in terms of increasing the deployment of renewable heat. Can VAT returns rather than GWh be used as a tool to measure entrants into the scheme?

Q8: Do you agree with the 2023 start date for the obligation?

BHSL Response: Yes, the obligation needs to start as soon as possible to make the greatest possible impact to our 2030 targets. Certainty needs to be given to the market to encourage investment and

project planning regarding the introduction of a RHO as soon as possible with the design of the RHO following shortly after.

Q9: In terms of the obligation rate, do you agree with the proposed initial level of obligation of 0.5%?

BHSL Response: An initial level of obligation of 0.5% is too low and doesn't reflect the urgency of the challenge that lies ahead for Ireland . We suggest the starting rate should be higher.

Q10: In terms of ambition for a 2030 target, what level of ambition do you think is appropriate?

3% minimum 5% medium ambition 10% higher ambition 10% should be a minimum target for 2030. a more ambitious target would be more in line with Ireland's commitments under the Climate Action and Low Carbon Act 2021, under the NECP, under RED II (25% renewable heating by 2030) and under 'Fit for 55'. The Renewable Energy Ireland (REI) "40By30" report² details that Ireland has the renewable resources to meet more than the entire Irish heating demand. This report outlines that 40% renewable heat is achievable by 2030, therefore the proposed 3%, 5% and 10% obligation levels in the RHO lack ambition and should be maximised.

Q11: Do you agree with the first obligation period being multiple years 2023-2025 to give the industry time to develop supply lines?

BHSL Response:

A three year period may be overly long. Obligated parties may delay reacting to the requirements and will not be encouraged to act at the pace that is required to meet the higher targets approaching 2030.

Q12: Once the first period 2023-2025 expires, do you agree with the obligation then becoming an annual obligation?

BHSL Response: Yes

Q13: Do you agree with suppliers being able to trade credits in order to meet their obligation?

BHSL Response: Yes – we could only agree to the RHO with this as a central pillar of its operation. However lessons learned following the implementation of the BOS need to be considered and addressed. Following introduction of the BOS almost all production was driven abroad and indigenous production was effectively eliminated. This was due to the market for certificates being operated privately with no visibility of the market. The RHO scheme needs to introduce an open market facility for obligation certificates. To ensure indigenous generation, certificates recognised by the RHO need to be generated in the Republic of Ireland.

Q14: Do you agree with allowing 10% carry over of renewable credits to be used in the following year's obligation?

BHSL Response: Yes

Q15: What are the sustainable energy sources likely to meet the Renewable Heat Obligation at an obligation rate of (i) 3%, (ii) 5%, (iii) 10% by 2030?

BHSL Response: As per Renewable Energy Ireland 40 By 30 report

Renewable heat resource potential	TWh/yr
Indigenous forestry & energy crops	9.7
Tallow, residual MSW, BioLPG	2.4
Biogas/Biomethane	10.0
Surplus heat	21.1
Electrification of heat	16.7
Other renewable heat resources	6.8
Total	66.7

Q16: Will there be enough sustainable indigenous supply to meet this demand?

BHSL Response: We refer you to the above table and the Renewable Energy Ireland 40BY30 report which gives an extensive description and quantification of the renewable heat sources available to Ireland. The report details 66.7 TWh available to meet Irelands 58 TWh annual heating demand. Ireland has ample resources to meet more than 100% of its heating demand from renewable sources.

Q17: Do you agree that for renewable fuel delivered directly to a consumer that this will be the point of supply?

BHSL Response: Provision needs to be made to allow for retail trade between the supplier and consumer for smaller quantities of fuels such as renewable solid fuels.

Q18: Which option to you think should be applied for renewable energy that is indirectly supplied (e.g. via the natural gas grid)? •

BHSL Response :Option A: Renewable energy is traced to the end consumer. For renewable gas, this would work similar to other fuels with individual customers being supplied the gas (verified by a certification system). This would allow consumers who value the ‘greenness’ more to pay slightly more and thus reduce the cost for other consumers. However, it could lead to some gas consumers funding the obligation but being credited with no ‘greenness’. • Option B: Renewable energy is equally proportioned to all of the supplier’s consumers. For a supplier of natural gas, the same proportion of renewable gas would be deemed to be supplied to its consumers in the heat sector.

Q19: Do you think the costs set out above are reflective of likely costs?

BHSL Response: Given the considerable rise in fossil gas prices in the past 12 months it is likely that the cost of replacement will be similar to or less than what proposed. Filling the RHO requirements may take many forms, the suppliers may opt to use biomethane from Ireland, biomethane imported from another country, Solid Biomass, biofuel (Irish or imported), or possibly hydrogen produced from excess electricity. It is difficult to predict what value the offset will have per kWh, but the suppliers will opt for the cheapest and most convenient method to suit themselves – this presents a considerable challenge but also a possible considerable opportunity for Bioenergy.

Q20: Are these costs reasonable to impose on consumers?

BHSL Response: Yes, the rates offer a certain level of “push factor” for fossil fuel users to move to renewable fuels, with incremental increases over the timescale up to 2030. We consider that higher levels could be tolerated given the climate emergency and the need to rapidly decarbonise our economy.

Q21: Do you agree with the intended position in relation to penalties for non-compliance?

BHSL Response: Biofuel Obligation Scheme has proven that a sufficient penalty will ensure high levels of compliance. The BOS has been 100% complied with since 2010. Therefore, we encourage a high level of penalty. There may be a case for the penalty level to be increased beyond what is proposed.

Q22: Do you think the proposed obligation poses a significant risk to increased energy poverty?

BHSL Response: No, energy poverty measures need to be implemented as below.

Q23: How best could the impacts on energy poverty be minimised?

BHSL Response: Energy poverty can continue to be alleviated through measures undertaken by the Department of Social Protection and at an increased level if required. Energy poverty cannot be used as a reason to neglect our climate impact responsibilities and can be alleviated by social welfare supports.

Q24: Do you agree with the outlined approach for additional support for green hydrogen?

BHSL Response: YES once the electricity used in the electrolysis process is from a fully certified renewable source .

Q25: Do you think that offering multiple credits for green hydrogen in the heat sector might have unintended consequences for supply in other sectors such as transport?

BHSL Response: There is considerable risk of unintended consequences when double incentivising Hydrogen production from excess electricity, principal amongst this is that where fossil electricity is on the grid the emissions of CO₂ are dramatically higher than all other heating sources. At the time of writing, grid emissions stand at over 450g CO₂/KWh average for the previous month. Conversion to Hydrogen would lead to 560g CO₂ / KWh of H₂, double counting to 1080g CO₂ / KWh. This is exceptionally larger than coal at 338g/kWh. Grid rules would have to be exceptionally rigid to ensure that only 100% renewable electricity is used and at the exclusivity of curtailment. Grid rules would also have to ensure that Renewable Electricity in the RHO is not supported through REFIT or RESS. This needs to be clarified by DECC. Incentives for Hydrogen through RHO should not divert renewable electricity from the grid thus impacting our 70% renewable electricity target. Separate transport decarbonisation measures may include incentives to utilise green hydrogen as a fuel. Calculations of the costs across both sectors and uses need to be established to ensure that the use of hydrogen for heating is not favoured over transport. Transport is the most difficult sector of society to decarbonise, therefore should have priority for renewable fuel sources such as renewable gases

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