

## Consultation on the Introduction of a Renewable Heat Obligation 2021

### BioCore Environmental Ltd responses to the consultation questions

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

BioCore Response:

BioCore would welcome the introduction of an RHO measure to increase the supply of renewable heat, providing that the measure is structured, designed and implemented in an appropriate manner. The RHO should:

- Maximise the heat market captured
- Support the supply of indigenous renewable heat sources
- Have ambitious renewable heat targets

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

BioCore Response:

BioCore believe that a Feed-in-Tariff based system for biomethane would be an appropriate alternative measure to increase the supply of renewable heat for the reasons outlined below:

Heat Demand:

The SEAI Energy in Ireland 2020 report highlights some key points:

- Dominant non-renewable heat fuels are Oil (42%) and Gas (41%)
- Strong shift from Oil to Gas.
- Largest use by sector is Residential (46%) followed by Industry (35%)
- Upward trend in Industry heat consumption since 2011 and similar upward trend in Residential use since 2014.

According to the **Renewable Energy Ireland 40by30 report**, biogas/biomethane has a potential renewable heat supply of 10TWh/y. This supply is sufficient to meet nearly 20% of the current non-renewable heat demand or nearly double the RHO 10% target based on current demand. Biogas/Biomethane would, in our opinion, be the quickest technology to deploy significant quantities of renewable heat.

Deployment quantity:

The RHO would incentivise the deployment of only the amount of renewable heat required to meet the set Heat Obligation Rate. Any renewable heat produced above the Obligation Rate would lose its value in a natural supply and demand relationship.

Financing:

Key to any renewable energy project is access to sustainable funding. The RHO will lead to uncertainty over the following key financing considerations:

- Energy price: as the RHO will be a market-based obligation, the price suppliers will pay for renewable heat will be uncertain, particularly in the early years of the scheme.
- Term: as the RHO will be assessed on an annual basis (with limited carry-over), the contract term that suppliers will contract with renewable providers is uncertain and may not align with term requirements of funding entities.

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

BioCore 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?

BioCore Response:

Yes, renewable/waste district heating systems and electricity used for heating purposes should be 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?

BioCore Response:

Yes.

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

BioCore Response:

Yes.

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

BioCore Response:

No. The heat market has a large number of suppliers. By implementing a 400GWh threshold, a large portion of non-renewable heat would avoid the obligation. Furthermore, this threshold may encourage medium sized heat suppliers to fragment their operations to ensure they fall under the 400GWh threshold.

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

BioCore Response:

Yes.

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

BioCore Response:

No. As noted in the consultation document, the supply of renewable heat has already failed to meet its 2020 targets. Significant gains are required to 'catch-up' with the 2020 targets and furthermore to meet the 51% reduction in emissions by 2030. A more ambitious initial obligation level, followed by a higher target to 2030 is required to effectively stimulate the development of a renewable heat supply sector.

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
- Other?

BioCore Response:

BioCore believes the ambition level should be a minimum of 10%.

Considering Ireland only supplied 6.3% of its 12% renewable heat target by 2020 and now has a new EU target of 25% of heat being renewable by 2030, the RHO scheme should have a high ambition level.

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

BioCore Response:

Yes.

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

BioCore Response:

Yes.

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

BioCore Response:

Yes, provided this is facilitated by an open market mechanism. To foster indigenous supply of renewable heat, credits traded in the RHO scheme should come from renewable heat sources 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?

BioCore Response:

No. Any carry over, if implemented should be kept at a minimum to maximise the demand for renewable heat. Potentially, carry over could be implemented for the first period (2023-2025) and then removed. The first period should allow enough time for renewable heat supply lines to be developed.

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?

**BioCore Response:**

The current heat supply (SEAI Energy in Ireland 2020 Report), excluding renewables is 51,742 GWh. This report highlights some key points:

- Dominant non-renewable heat fuels are Oil (42%) and Gas (41%)
- Strong shift from Oil to Gas.
- Largest use by sector is Residential (46%) followed by Industry (35%)
- Upward trend in Industry heat consumption since 2011 and similar upward trend in Residential use since 2014.

These figures indicate that the focus of renewable heat should be towards the decarbonisation of the gas supply to the largest users being the Residential and Industry sectors.

In order to meet the RHO rates the following annual quantities of renewable heat would be required:

3% = 1,552 GWh  
 5% = 2,587 GWh  
 10% = 5,174 GWh

According to the **Renewable Energy Ireland 40by30 report**<sup>1</sup>, the following potential sources of renewable heat are as follows:

Source	Potential Supply (GWh/year)
Biogas/Biomethane	10,000
Indigenous Forestry/Energy Crops	9,700
Tallow, residual MSW, BioLPG	2,400
Other Renewable Heat Sources (Geothermal, Solar Thermal)	6,800
<b>Total</b>	<b>34,300</b>

These potential sources indicate that Ireland has sufficient capacity to supply enough renewable heat to far exceed even a 10% RHO rate.

<sup>1</sup> - <https://renewableenergyireland.ie/wp-content/uploads/2021/05/Renewable-Energy-Ireland-Renewable-Heat-Plan-Final.pdf>

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

**BioCore Response:**

As highlighted in the response to Q.15, the **Renewable Energy Ireland 40by30 report** indicates that there is significant indigenous renewable heat supply potential to meet Ireland’s heat demand.

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

BioCore Response:

Yes.

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

BioCore Response:

Option B is preferred.

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

BioCore Response:

Yes, although considering the trajectory in fossil fuel prices, the costs to consumers for the supply of sustainable biomethane is likely to be less than or equal to the scenario without biomethane.

Q20: Are these costs reasonable to impose on consumers?

BioCore Response:

Yes, although considering the trajectory in fossil fuel prices, the costs to consumers for the supply of sustainable biomethane is likely to be less than or equal to the scenario without biomethane.

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

BioCore Response:

Yes. A sufficient level of penalty is required to ensure compliance with the scheme. A penalty system has been successfully implemented in the Biofuels Obligation Scheme.

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

BioCore Response:

No. Energy poverty currently exists in the absence of an RHO scheme. Continuing a reliance on fossil fuels for heat will only lead to increased energy poverty as fossil fuel prices increase.

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

BioCore Response:

The Department of Social Protection should continue to alleviate energy poverty through the measures it currently applies.

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

*BioCore Response:*

Yes.

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?

*BioCore Response:*

Multiple credits for green Hydrogen should only be provided once the criteria surrounding its production have been clearly defined. These criteria should ensure that only 100% renewable electricity is used to produce the green Hydrogen. Even in this scenario, only excess/curtailed electricity should be used.