



**Response to Consultation by  
the Department of the Environment, Climate and  
Communications**

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**Consultation on the Introduction of a Renewable Heat  
Obligation Scheme**

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Electricity Association of Ireland

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### A decarbonised future powered by electricity

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The Electricity Association of Ireland (EAI) is the representative body for the electricity industry and gas retail sector operating within the Single Electricity Market (SEM) on the island of Ireland.

Our membership comprises utilities that represent 90% of generation and retail business activities and 100% of distribution within the market. Our members range in size from single plant operators and independent suppliers to international power utilities. Our members have a significant presence in NI, ROI and the UK across the sector value chain. We represent the interest of the all-island market in all relevant jurisdictions, including the EU via our membership of the European electricity representative body Eurelectric.

We believe that electricity has a fundamental role in providing energy services in a decarbonised, sustainable future, in particular through the progressive electrification of transport and heating. We believe that this can be achieved, in the overall interest of society, through competitive markets that foster investment and innovation.

We promote this vision through constructive engagement with key policy, regulatory, technology and academic stakeholders both at domestic and EU levels.

Our ambition is to contribute to the realisation of a net-zero GHG emissions economy by 2050 or sooner, in order to limit the impact of rising temperatures. Electricity offers opportunities to decarbonise the Irish economy in a cost-effective manner.

## **Introduction**

EAI welcomes the opportunity to respond to the consultation on the introduction of a Renewable Heat Obligation (RHO). EAI supports Ireland's ambition to reach net-zero emissions by 2050 and to reduce emissions by 51% by 2030 compared to 2018 levels. We support the Government's target to achieve a 24% share of renewable energy in the heating and cooling sector and we believe that, given the poor progress to date in decarbonising the sector, further action and policy support is needed. The electrification of heat will be a key driver of the decarbonisation of the built environment as outlined in the Climate Action Plan. It is clear; however, that other solutions will be needed if Ireland is to reach the scale of emissions reductions required by our new Climate Action Act.

At a high level, we have concerns regarding the lack of supplementary analysis to the consultation paper. More specifically, we would require more detailed information on the feasibility of the scheme including a Cost-Benefit Analysis on alternative or additional policy measures to decarbonise heat as it is not clear to us that the proposed scheme is the most appropriate mechanism to achieve emission reductions in the sector.

Decarbonising heat is necessary to achieve national and European climate targets and as outlined in the consultation paper, reducing emissions in the heat sector remains a key challenge for Ireland. In light of this, we believe policies to decarbonise heating should not create restrictive barriers to certain technologies. This is reflected below where we call for credits to be given when a fossil-fuel heat source is converted to electric-powered heating.

## **Key concerns**

### **Holistic approach required to decarbonise heat**

- As expressed in the introduction, the lack of supplementary analysis to the consultation paper is a concern. EAI would welcome more detailed information on the feasibility of the scheme and analysis on alternative or additional policy measures to decarbonise heat as it is not clear to us that the proposed scheme is demonstrated to be the most appropriate mechanism to achieve decarbonisation in the sector.
- While we recognise the need for policy measures to increase the level of renewable heat in Ireland, we believe a RHO alone will not achieve the desired level of decarbonisation needed in the sector, particularly in the near-term. A plan is required outlining where the RHO will fit in the overall policy framework to decarbonise the heating sector.

- We believe electrical heat (e.g., heat pumps) should be eligible for credits under the scheme and ask the Department to reconsider its views on this point. However, if electrical heat is not eligible as currently proposed, then the scheme will only focus on bringing forward investments in biomass, biogas, biomethane and hydrogen, etc for heat decarbonisation. If this is the case, there are a variety of challenges to ensuring enough supply is available to meet RHO requirements including:
  - Limited near-term supply - long lead-times for hydrogen projects mean delivery is expected towards the end of the decade leaving biomethane blending as the only option for delivering renewable heat directly to gas customers in the short term. A 2016 report by the European Commission suggested that Ireland has the highest potential for biogas per capita across EU Member States given strong availability of feedstocks<sup>1</sup>. However, only a portion of this potential will be economically and sustainably viable. Currently there are low levels of indigenous biomethane available. There was approximately 2 GWhs of biomethane injected to the gas grid in 2020, compared to the 110 GWhs that would be needed, under current proposals, to fulfil the RHO in 2023. Although we welcome the ability to trade credits with other obligated parties we do not think this should be the sole means of compliance as it may result in cross- subsidisation of decarbonisation with no carbon abatement benefits to the end customer in their own sub-sector.
  - Inadequate investment signals - The RHO does not provide reliable investment signals to ensure an adequate supply. Biomethane and hydrogen production require high levels of capital investment and the RHO fails to create investor confidence as it does not help to secure a minimum price for biomethane/ hydrogen that delivers an acceptable return on investment.
  - Holistic policy proposals to encourage biomethane feedstocks - Increases in future indigenous biomethane supply not only require energy policy changes, agricultural policy changes are also needed. A significant amount of future biomethane supply is expected to be based on grass silage<sup>2</sup> which will require engagement with the farming community to ensure the right incentives are put in place to adjust farming practices i.e. reduction in pastoral farming. It's important that there is a clear view on the volume of feedstocks that can be sourced in line with the sustainability criteria under the Renewables Directive.

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1 See European Commission Optimal use of biogas from waste streams An assessment of the potential of biogas from digestion in the EU beyond 2020 report [here](#)

2 See SEAI Bioenergy in Ireland 2015-2035 report [here](#)

- Given these challenges we believe alternative policy measures are needed to ensure the desired targets are met. We suggest the Department consider
  - Extending existing schemes such as the Support Scheme for Renewable Heat (SSRH)
  - Introducing new, additional support schemes such as Feed-in-Tariffs that are funded by a Green Gas Levy (similar to the PSO levy) or hypothecated funds from the carbon tax.
  - Exchequer funded support for renewable heat or the development of CPPA's in the sector to encourage renewable heat procurement
- The experience and development of renewable heat policies in other jurisdictions should be considered when assessing options. Research from the European Commission shows that direct supports in the form of grants, tax incentives, loans or feed in premiums/tariffs have been commonplace in Europe to date. France, Denmark, Italy and the UK have all been successful in integrating high volumes of renewable heat mainly due to the availability of government supports to encourage investment, i.e. a FIT that provides a minimum price to investors over a 15–20-year period. Based on this successful experience and bearing in mind Ireland's positive experience in incentivising renewable electricity a Feed in Tariff may be a particularly suitable alternative.
- EAI notes that policymakers in GB are in the process of reforming their feed-in-tariff for heat with the Green Gas Support Scheme. The Department for Business, Energy and Industrial Strategy (BEIS) intend to continue supporting biomethane production from AD plants through a tariff-based mechanism. The consultation document on the Green Gas Support Scheme notes that for the longer-term, BEIS expect to focus on market-based mechanisms, which leverage competitive forces to drive down costs and ensure cost-effectiveness. Future policy options highlighted include a Supplier Obligation or alternatively a Contracts for Difference (CfD) model, which has helped to drive down costs in the power sector<sup>3</sup>. It is worth noting that the UK market is more advanced than Ireland in terms of biogas/biomethane production.
- There are a series of steps outlined in the Interim Climate Action Plan which need to be completed for Ireland to decarbonise the gas grid, including developing a policy/regulatory roadmap for the use of green hydrogen. Joined up thinking with stakeholders such as GNI on a high level strategy for green gas, hydrogen and biofuel is needed. For example, the European Commission is expected to publish a delegated act on the framework for the categorisation of hydrogen before the end of 2021. This will have an impact on national regulation and policies for hydrogen. We would welcome an assessment

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<sup>3</sup> Department for Business, Energy and Industrial Strategy, Future support for Low Carbon Heat, July 2020: [Future support for low carbon heat: consultation \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/90422/future-support-for-low-carbon-heat-consultation.pdf)

to inform a government policy position on the role of hydrogen and renewable gas in the energy sector. We look forward to the publication of the Hydrogen Strategy expected in late 2022.

#### Costs of the RHO

- Uncertainty around the costs for the proposed RHO are a significant concern. EAI request that a Cost-Benefit Analysis be undertaken and published to inform decision-making.
- An analysis of the existing market for bioenergy in Ireland is also needed particularly as imported biofuels are unlikely to meet the EU's sustainability criteria. Low supply risks putting upward pressure on costs and ultimately the cost to the consumer. It is important to remember that it will take some time for a hydrogen market to develop and so sources of biogas and biomethane will need to be the primary drivers.
- A considerable level of maturity would be needed to facilitate a market-based mechanism like a Supplier RHO.
- As the potential costs of the scheme are uncertain and given the current state of the market, the minimum ambition trajectory should be pursued.
- Clarification is required on how large industrial heat users, who are currently incentivised to decarbonise through the EU ETS, would be treated to avoid duplicate costs.
- Carbon leakage is the shifting of greenhouse gas emitting industries outside the state to avoid tighter standards. This simply moves the problem elsewhere and can result in an overall increase in global GHG emissions. The EU ETS has safeguards to minimize carbon leakage outside the EU. Consideration should be given to how the Renewable Heat Obligation should be structured to avoid doing economic harm to Ireland and increasing overall global GHG emissions.

#### Timeline and ambition trajectory

- EAI is concerned about the proposed timeline for implementation of the proposed RHO which does not take account of the immature state of the market in Ireland or the nature of the gas retail/contracting market.
- EAI believes the proposed start date of the scheme (2023) should be revised as gas suppliers already have contracts in place up until the mid-2020s.
- Consideration should also be given to the time it may take to scale up renewable gas production in Ireland. If the renewable gas industry is not developed to the scale required for the chosen ambition trajectory of the RHO scheme, there is a risk that gas suppliers would be forced to buy credits from

other fuel suppliers in the heat sector, which would not facilitate the decarbonisation of gas. It is also unclear if the purchase of credits from abroad (i.e., Guarantees of Origin) are allowable. While flexibility in purchasing GOOs may be appropriate given the nascent state of the market, such an approach may be considered sub-optimal because Irish consumers would be paying for renewable heat abroad without any carbon benefit to Ireland. A scarce supply of projects risks putting upward pressure on the costs of credits and ultimately the cost to the consumer for no additional gain.

- The timelines for the production of green hydrogen and the level of multiplier should also be considered, especially in the context of the additionality requirement for hydrogen. According to REDII, there is a requirement for the renewable energy used for the production of hydrogen to be “additional” to existing capacities. This additionality is not yet well defined. Formal guidance in the form of a delegated act is expected from the European Commission soon. In anticipation of this guidance, measures are already underway in other countries to define “additionality”. Approaches range from a very tight definition “only direct physical connections to renewable electricity projects built at the same time or after the electrolyser” (UK RTFO), to broader definitions that do not require a direct, locational link between the project and the electrolyser. Given the planning and consenting timelines in Ireland, a range of measures should be considered in the short to medium term.

#### **Exclusion of power-to-heat**

- Ultimately Ireland is seeking to increase the renewable share in heating in parallel with decarbonisation and so any scheme introduced should, insofar as possible, capture all technologies that will be available to customers. The current proposals appear to exclude credits from switching to electrified heat but appear to allow heating oil retailers meet their obligation through biomethane in the gas sector. We believe this should be considered further if the scheme is to proceed; that it should be sufficiently flexible and give credits for switching from a fossil to an electric heat source.
- EAI believes that electrification of heat will drive significant emissions reductions. We discussed above the need for a holistic plan to decarbonise the heat sector beyond the levels of renewable energy proposed in this consultation (3 – 10%). As there is an existing plan for electricity sector decarbonisation, we believe using renewable electricity for heating is an attractive prospect for decarbonisation of the heat sector and should be considered under RHO accounting.
- Heat pumps have an efficiency of more than 300% as they extract significant renewable energy from the external environment. As electricity continues to decarbonise each year as more renewable generation is connected, heat pumps will emit fewer carbon emissions each year. The Government



has set targets to install heat pumps in 400,000 existing homes and 200,000 new homes, allocating credits for heat pump installation would also help achieve these targets.

- For higher temperature applications, power-to-heat can be achieved through flexible use of electrode boilers dispatched in harmony with indigenous renewable electricity generation. These, when dispatched efficiently, will decarbonise industrial heat and reduce the dispatch down of renewable generation assets. Because they are only dispatched in times of excess generation, they do not add to the generation adequacy issues.
- A further benefit of the electrification of heating is the transfer of emissions from the non-ETS sector to the ETS sector. Every tonne of carbon moved from the non-ETS to the ETS sector reduces the Government's challenge in the non-ETS sector less and makes it cheaper to achieve targets.

#### Gas quality considerations

- EAI represents some of the largest gas shippers and users on the island of Ireland.
- Abated and renewable gas will play a key complementary role in supporting renewables in electricity production as well as in heating and transport, on the road to decarbonising the energy sector and in the long-term.
- EAI wrote to the Department, CRU, GNI and EirGrid at the end of April to highlight member concerns regarding the impacts of gas quality changes on gas-fired power generation.
- While small, domestic end-users are relatively untroubled by changes in gas composition within a safe range, fluctuations and variability in gas quality can cause disruption to operations for sensitive equipment such as gas turbines, burners, and boilers.
- We would reiterate our concerns, expressed in our previous correspondence on this issue, that the impact of any potential changes to technical gas quality specifications needs to be carefully considered and consulted on with the industry, given the potential impact on gas-fired generator performance which could create a security of electricity supply risk.
- It is important that gas system operators work in full cooperation with the sector in the coming months and years for changes in gas content to be managed successfully, with minimal disruption and cost to the wider industry and energy consumers.

### **Conclusion**

The EAI welcomes the opportunity to respond to this consultation on the possible introduction of a Renewable Heat Obligation scheme. Decarbonising heat is crucial to achieving national and European climate targets between now and 2030 and remains a key challenge for Ireland.

Given the potential costs and practical implications and impositions that might arise from this proposed scheme, we believe that further analysis is needed to inform the development of policy options. A holistic approach to decarbonising heat is needed and we would welcome the development of a broader strategy on decarbonising heat, hydrogen and biofuels.

*The Electricity Association of Ireland, October 2021*

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