



Submission to the Consultation on the Introduction of a Renewable Heat Obligation

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

Yes. We believe that the introduction of a Renewable Heat Obligation is an appropriate measure. Given the slow progress which has been achieved in increasing the use of renewable fuels to meet heat sector demand and given the fact that the use of such fuels pales in comparison with the EU average, it is clearly time for a new approach aimed at stimulating the development and deployment of low-carbon and zero carbon fuels within the sector.

The introduction of the Biofuels Obligation Scheme for transport more than a decade ago has been a major success, as progressive increases in the obligation rate have led to an increased use of biofuels, coupled with a corresponding decrease in the percentage of oil-based products being used. Annual emissions reductions of around 300,000 tonnes are being achieved, and the Government is currently considering following the lead of the US, the UK, Australia and several other European countries in mandating an even higher biofuels content within the standard blend sold in Irish filling stations.

Clearly, the implementation of changes in transport, heating and other sectors often brings with it significant technical challenges. By progressively increasing the use of biofuels in the transport sector, policymakers have helped to deliver a win-win outcome: slashing emissions without hindering fuel providers or jeopardising the transportation needs of the broader population.

A Renewable Heat Obligation based along similar lines - with clear guidelines and controls (including around the sourcing of environmentally sustainable fuels and materials), gradual increases year-by-year and ongoing engagement between all stakeholders - can play a significant role in kickstarting a transition to low-carbon liquid fuels.

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

Not applicable.

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

Yes - any obligation should apply to all non-renewable fuels used for heating. The transition to carbon neutrality necessitates a clear focus on cutting carbon emissions across the board. Any deviation from this, and any policy which impacts one sector but not another without a clear rationale for the difference in treatment, runs completely contrary to achieving our goals of making Ireland a net-zero emissions country by 2050. In order to make this transformation a reality as soon as possible, it is vital that the Government base their policies around the principle of technological neutrality by aiming to reduce emissions in every sector, regardless of what tool is used to achieve this.

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?

No. Where possible and technologically feasible, all sectors - including electricity used for heating purposes and renewable/waste district heating systems - should be included within any proposed obligation. The current focus on electrification as a proposed solution for meeting home heating needs across Ireland overlooks the fact that most electricity generated in Ireland comes from non-renewable sources. If Ireland is to achieve our ambitious climate action targets, we need to ensure that all necessary steps are taken to reduce emissions wherever it is possible to do so.

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?

As outlined in response to Q4, there needs to be a clear focus on reducing emissions in all areas where it is technologically feasible to do so. The introduction of a progressive Renewable Heat Obligation would be one step to achieving this within the heating sector, but it is vital that a broader policy of technological neutrality be adopted throughout other sectors as well. By treating industries and technologies in the same manner and judging their performance by the same yardstick where possible, we can ensure that the focus



remains on the task at hand: achieving massive reductions in carbon emissions in the coming years and becoming carbon neutral by 2050.

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

Yes

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

Yes

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

Kingspan Water & Energy believes that a Renewable Heat Obligation should be introduced as soon as possible, though we also recognise the need for further dialogue with the various stakeholders in advance of it coming into effect. Given the relatively low proposed obligation rate of 0.5% which has been suggested, it is of paramount importance that this becomes part of the policy landscape within the fuel sector at the earliest possible time, after which the obligation can gradually be increased in the coming years.

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

Yes. While acknowledging that 0.5% appears low, we believe that the initial level will provide a useful starting point for efforts to gradually increase the proportion of renewable energy used within the sector. We welcome the statement that it “is envisaged that the obligation rate would never decrease and that the rate would be increased over time having provided sufficient notice to the obligated parties.” In order to ensure that potential teething problems are quickly resolved, we would emphasise the need for a continuous process of engagement with all stakeholders throughout the 2023-2030 period and beyond it.

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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?**

Kingspan Water & Energy strongly endorses the suggested higher ambition level of 0.5% rising to 10% by 2030. Given the unique profile of the Irish home heating sector, including the large reliance on liquid fuels, and given the disappointing performance to date in increasing the use of renewable energy within the home heating sector, it is clear that a new approach needs to be developed, and we aim to be a central part of this process.

We believe that even the 10% target included here is not sufficiently ambitious, and pales in comparison to what our members believe is achievable given the right policy supports. New and independent research suggests that a switch from oil to bioliquids such as Hydrotreated Vegetable Oil could result in emissions reductions of up 86%. These bioliquids already exist and represent a cost-effective option for the great many households who want to contribute to reducing carbon emissions, but who cannot afford to pay for the 'deep retrofitting' process which would be needed to install a heat pump in their homes. In the coming years, we foresee many households switching from kerosene to fuels like this, particularly if the Government brings about the necessary changes when it comes to how such fuels are treated within our taxation system.

Moreover, the liquid fuel sector is rapidly being transformed in other areas, and this transformative process presents major opportunities: including the development of new sustainable aviation fuels which could potentially replace the kerosene used in Ireland's home heating sector. Solutions are already on the horizon, and in the coming decade, many more will be developed. The introduction of a Renewable Heat Obligation would be a significant aid in bringing this much-needed change about as quickly and efficiently as possible.



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

Yes. There are clear advantages to having the obligation period spread across multiple years, with compliance initially being measured over the full three-year period, and with obligation periods of five and ten years also being considered. To ensure the success of this process, it is vital that policymakers continue to engage with all stakeholders throughout this process. Even more important will be the introduction of regulatory and taxation changes which incentivise the deployment of alternative fuels such as HVO.

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

Yes. In order for the Renewable Heat Obligation to be effective and for the benefits of this policy to increase in the coming years, it is essential that this becomes an annual obligation, in the same way as the Biofuels Obligation Scheme is operated currently.

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

Kingspan Water & Energy agrees in principle that suppliers should be able to trade credits in order to meet their obligations, as when such a policy is implemented successfully it allows for greater flexibility across various sectors while forcing all stakeholders to prioritise emissions reductions. It is important, however, that the Department makes clear what controls will be in place to ensure that any market for emissions credits is effectively controlled so that the focus continues to be on emissions cuts within the heating sector.

Additionally, policymakers need to consider the implications of any such measure when it comes to EU rules, which could mean that such a market extends across the Union, with all the complicating factors which this would entail. Ultimately, close, and continuous dialogue between all stakeholders will be of major assistance in preparing for the introduction of trading credits in this area, and in ensuring that any such policy is effective.

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

While we agree in principle with allowing a 10% carry over of renewable credits to be used in the following year's obligation, we also believe that a policy of enhanced flexibility - allowing more than 10% carry over - could achieve even more when it comes to incentivising the sort of major emissions cuts which would result in companies and individuals gaining more renewable credits. As companies look to make major changes in how they operate in the coming years, it is important that they can avail of the many opportunities which an effective and properly regulated emissions credit system can offer them.

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?

Given the wide variety of technologies which are used in the heating sector, many different sustainable energy sources are likely to play a role in helping to achieve the targets set out within any possible obligation.

In the liquid fuels sector, several effective bioliquids exist which could play an enormous role in cutting emissions in the coming years. According to independent research from AECOM, an 86% reduction in emissions could be achieved by using Hydrotreated Vegetable Oil (HVO) in place of oil and this product is currently favoured by OFTEC Members for deployment.

Analysis by Greenea suggests that European production of HVO is expected to increase from 3.5 million tonnes in 2020 to 11.30 million tonnes by 2025. Similarly, production in other parts of the world is also expected to increase substantially. Greenea predict the most rapid growth will be a six-fold increase in the USA, from 1.9 million tonnes to 12.6 million tonnes. Total world production is expected to reach almost 30 million tonnes by 2025, compared to only 7 million tonnes in 2020.



Clearly, biofuels have an enormous role to play here, and are already demonstrating their worth internationally. Between 2011 and 2016, utilisation of used cooking oil (UCO) increased by 360% across Europe, and it is increasingly being used for bioenergy across Europe, with countries such as Belgium, Sweden, Austria and the Netherlands showing that household collection can work very well.

While legitimate concerns exist around the sourcing of some biofuels, it is important to remember that 67% of all the biofuel placed on the market in Ireland comes from UCO. Kingspan Water & Energy has joined others in the sector in consistently highlighting the need for stronger controls to be put in place at European Union level to ensure that biofuels are sourced sustainably. Biofuels have the capacity to meet home heating needs while bringing about major emissions reductions, but better safeguards are needed when it comes to sourcing such products.

In addition to offering the promise of enormous emissions reductions, the use of HVO would also help to allay concerns about the sourcing of liquid fuels, as Hydrotreated Vegetable Oil is manufactured from 100% renewable and sustainable waste derived raw materials certified via the International Sustainability and Carbon Certification (ISCC) scheme. Most of the fast-growing production capacity is based in Europe, with one of the important by-products of the production process being bio-propane, which is sustainable for LPG boilers.

Policymakers also need to maintain an open mind in relation to the wide range of new low carbon and zero carbon liquid fuels which are coming onto the market, or which are still at an early stage in the evolutionary process. The introduction of a Renewable Heat Obligation will accelerate this process of innovation, with the likely result being that entirely new fuels are developed in order to achieve the goal of carbon neutrality in the coming decades.

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

Yes. Heating providers currently rely on a range of products sourced outside of the Irish market. Aside from the liquid fuels and gas sectors, electricity used for heating purposes is also dependent on products sourced internationally within the context of a single European market, as well as the broader global market. While we recognise the possible benefits of relying on products such as biofuels made from domestically sourced waste material, we see no reason why heating providers would rely solely on indigenous supplies.

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

Yes, and directly from the distributor/terminal who will be responsible for the biofuel element.

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

Not applicable.

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

In a rapidly changing market, it is always difficult to predict future cost changes over the course of a decade. It is abundantly clear, however, from both international experience and recent research, that alternatives to home heating oil such as biofuels represent cost effective alternatives. The cost effectiveness of switching to such products is particularly clear when it comes to examining the additional cost which would be faced by each household in switching from an oil-based heating system to the use of an alternative liquid fuel, and comparing these costs to the option of installing heat pumps.

While heat pumps can be a very effective heating solution, especially in new homes, the 'deep retrofitting' processes which usually have to be undertaken are beyond the reach of most households: in 2020, the average cost of a deep retrofitting process was €56,000. At present, homeowners are being faced with a difficult choice between paying ever-increasing carbon taxes or opting for a technology which most people simply cannot afford, and this lack of real choice is greatly hindering progress in reducing emissions in the heating sector. We can do more, and reduce emissions by more, if we give households effective and affordable alternatives made up of a gradually-increasing percentage of renewable fuels.

Q20: Are these costs reasonable to impose on consumers?

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Clearly, increased costs bring with them major challenges for consumers. We need to be mindful of the impact which policy decisions have on those of limited means, and recent warnings about the effect which increased fuel prices have in raising the proportion of people experiencing fuel poverty should be a cause of concern.

Almost 700,000 Irish homes are heated using oil-fired systems, and those who rely on this form of heating are eager to make their contribution to cutting carbon emissions. The demonstrably slow progress in meeting the State's retrofitting targets suggests that a deep retrofitting costing €56,000 on average is not within their reach. Viable alternatives such as bioliquids which mix oil with alternative fuels and products such as HVO, however, would be of enormous benefit in providing those 700,000 households with the means to make significant contributions to cutting emissions from home heating. We firmly believe that the introduction of a Renewable Heat Obligation would be an important step in doing this.

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

Yes. In order for any Renewable Heat Obligation to be successful, it is important that appropriate penalties are in place for non-compliance, as is the case within the very successful Biofuels Obligation Scheme. As with the issue of renewable energy credits, establishing the correct policy framework for dealing with non-compliance will be vital in ensuring the success of the obligation. To achieve this, the Government should ensure that a process of ongoing dialogue and proactive engagement is pursued, as this will help to identify issues of concern and provide effective solutions rapidly.

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

No. A properly structured Renewable Heat Obligation will progressively increase the proportion of renewable energy used within the heating sector, but there is no reason to believe that this will necessarily increase the risk of energy poverty. Increasing taxes on fuel clearly does have the effect of pushing people into fuel poverty, and the current one-size-fits-all approach of concentrating solely on the policy of electrification while using taxation as a means of inducing people to choose this option is a recipe for continued failure in the coming years.

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Decarbonising the home heating sector will require much work in the coming decades, and households need real options to allow them to contribute to this vital shared effort. Introducing a Renewable Heat Obligation will accelerate the transition to a future by ensuring that all parts of the sector are prioritising the need to change how we provide effective home heating. There is no panacea available currently, and we need to move towards a policy approach which includes a range of affordable and sustainable energy solutions which will meet people's needs.

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

To minimise the risk of energy poverty, policymakers need to ensure that a range of viable alternatives are made available to help households achieve carbon reductions without increasing the risk of greater fuel poverty. One core principle in this must be that there should be no penalties where there are no alternatives. The vast majority of rural households rely on oil-fired heating systems, and those living in rural areas often cannot access the natural gas grid, while the possibility of switching to a heat pump is also often out of the question due to the prohibitive costs which this entails. Thankfully, as a result of the availability of effective new low carbon liquid fuels, there are solutions available, and we need to take every step necessary - both in the area of taxation and regulation - to incentivise a rapid move towards fuels which can deliver a zero carbon future.

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

Yes. Green hydrogen represents one of the most exciting and environmentally friendly energy sources available currently. Ireland's geographic position presents unique opportunities when it comes to the production of a product which could make a massive contribution to cutting carbon emissions across a wide range of industries, and recently announced plans for major hydrogen production facilities should be warmly welcomed. The publication of the European Commission's strategy on hydrogen last year was a landmark moment for hydrogen policy, and the Government should follow the policy path laid out elsewhere by rolling out a detailed national strategy for how additional support could be provided for the development of green hydrogen, including the possible use of the aforementioned renewable energy credits. As steps are taken to develop this industry, it will be very important to ensure that the production of green hydrogen is subject to



the same strong and transparent controls to ensure that renewable energy is produced to the highest standards in sustainability.

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?

Hydrogen is beginning to play a more important role in fuelling Irish transport, including modes of transportation which present challenges when it comes to the use of batteries and electrification. Clearly, the supply chains for the fuels used in the transportation and heating sectors are to some extent interlinked, and this can create challenges in ensuring that unintended consequences do not arise. As with the use of biofuels and other low carbon liquid fuels, we need to carefully plan for how green hydrogen can play a role in the decarbonisation of home heating. The best way of doing this would be for the Government to engage in a more comprehensive planning process when it comes to our future policies in relation to green hydrogen. Given the unique opportunities presented by the development of green hydrogen, instead of this forming just one small component of the Climate Action Plan, we need policymakers to take the next step in laying out a detailed path for green hydrogen, one which will outline the steps which can be taken to support its use and the policies which will be put in place to prevent unnecessary difficulties from arising.

10.12 General Input

With the right supports in the areas of taxation and regulation, we can deliver real change for the betterment of all stakeholders. One crucial first step in this process is ensuring that all heating providers begin to incorporate renewable energy within their businesses, and we strongly believe that the introduction of a Renewable Heat Obligation would be the best way of achieving this.

Engagement with the sector is of paramount importance as we begin this transition.

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