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From: [REDACTED]
Sent: Saturday 14 August 2021 09:54
To: Renewable Heat; [REDACTED]
Subject: [REDACTED] Renewable Heat Obligation Consultation

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Renewable Heat Obligation Consultation

Business Energy Gas Policy Division

Department of the Environment, Climate and Communications

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Dear Sir/Madam

Thanks for the opportunity to comment on your proposed policies.

This is a renewable fuel obligation. To call it a renewable heat obligation risks distracting from technologies with a much larger potential to quickly reduce the carbon emissions due to the provision of heat for Ireland. Where possible, renewable electricity, (REe) must be used to produce heat, and Ireland has abundant resources of this. Fuels have a valuable role 'filling in' when and where REe is not available, utilising their low cost capability to store energy until needed.

Developing 'power to heat' and the application of electric heat pumps is critical for effective policy, and boundaries between the power and heat markets must be quickly removed by policy action. i.e. To provide heat in Ireland, renewable electricity should always be providing some or all of it over the year. Until batteries become more affordable, the energy storage capacity of fuels must be used to facilitate a transition to heating with zero carbon renewable electricity. A rapid expansion of renewable electricity generation greater than that for existing power markets must be facilitated, by diverting revenue paid for fossil fuel imports to financing new clean generation. This is needed to provide power to manufacture hydrogen and synthetic fuels as the energy transition progresses.

Supportive policy is needed for the following technologies now:

- Using the existing low voltage grid to distribute power for heat and hot water at times and locations that grid capacity allows this.
- Developing district heating with seasonal thermal storage to accept overproduction of wind energy at times of low heat and power demand
- Smart systems to dynamically switch heating and hot water systems between direct use of power and heat from other sources including thermal stores, CHP, and combustion boilers.
- Smart technologies to pre-heat homes and hot water with renewable electricity and heat pumps, to avoid using fuel and power in the winter evening peak and so avoid extra system investment costs.

Agile or 'Interruptable' Electricity tariffs should be re-engineered to incentivise the uptake of renewable electricity for heat. e.g With low cost periods at night and in the early afternoon when more REE is available, or with rates with a fixed discount to the cost of heat from combustion fuels.

We are obliged to do all this to avoid the unaffordable cost of lost opportunities to slow and stop the accumulation of CO2 in the atmosphere.

These are my personal views and not necessarily those of my employer.

Yours sincerely [REDACTED] BSc Applied Science

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(Useful reference materials on district heating, thermal storage at dbdh.dk;
irena.org/publications/2020/Nov/Innovation-outlook-Thermal-energy-storage)