

Opening Statement to Joint Committee on Environment and Climate Action

eHeat Ireland (EHI) is an industry led member trade association established in 2021 to promote the acceleration of decarbonisation of heat through electrification. The association is an all-Ireland body led by industry experts committed to promoting utilizing renewable electricity to generate decarbonised heat as an economically viable alternative to fossil fuels and, lead to a significant overall reduction in total energy usage through the utilisation of highly efficient technologies.

Ireland is a world leader in the deployment of renewable electricity, with a six-fold increase in the share of renewable electricity generation seen between 2005 and 2020 – from 7% to 39.1% and, with ambitious targets to increase renewable electricity share to 80% by 2030. Regrettably, this is currently not the case for renewable heat, with Ireland's current renewable share in the heat sector at 6.8% in 2021, in comparison to the European Union average of 22%. Citing the SEAI National Heat Study commissioned in 2022, Ireland's industrial heat demand is 40% of Ireland's total heat demand at 17.5 TWh and is estimated to be responsible for nearly 5 million tonnes of CO₂ emissions annually. Industry emissions accounted for 10.2% of Ireland's total emissions in 2021, steadily increasing in line with economic trends, growing annually since 2012.

eHeat welcomes the recognition in the Climate Action Plan 2023 of the role greater electrification of industrial heat combined with energy efficiency measures can contribute to carbon abatement, noting the requirement of policies and appropriate supports to facilitate industry investment in low carbon processes. Specifically, the goal of electrifying 55% of low/medium grade heat in industry is a clear and realistic target to decarbonise industrial heat.

Electrification of industrial heat is a vital underexploited tool in our decarbonisation efforts. Referring to the SEAI National Heat Study, where a variety of scenarios were examined to achieve net-zero by 2050, the report notes "net-zero emission pathways with the lowest cumulative emissions use more electric heating technologies. Scenarios focused on a hydrogen gas grid have more cumulative emissions". Therefore, focusing on the immediate opportunity of electrifying heat will give Ireland the most realistic pathway of staying within our legally mandated carbon budgets. The report also notes approximately 50% of all industrial heat demand is low to medium grade below 150°C and, identifies electrification and industrial scale heat pumps as key technologies to achieve net-zero for this heat demand. Additionally, the report identifies decarbonisation of the industrial sector as the most effective in terms of

emissions impact and cost effectiveness, in comparison to the residential and commercial sectors. Thus, there is a concrete evidence base support the electrification of industrial heat in the context of technical suitability and emissions impact for investment employed. However, there are numerous barriers facing the sector in accelerating decarbonisation of heat through electrification.

Electrification and heat pump technology is an attractive option for industry heating in scenarios where the electricity price is low relative to the price of fossil fuels. In a European context, this price ratio varies significantly, with countries such as Norway, Finland, and Sweden with a large uptake in electric heating technology this ratio is less than 2. In Ireland this ratio is above 4, this variation in electricity and gas prices can be a significant barrier to investment in Ireland. For instance, applications which have a payback period of 1 year in Norway, may have a payback period which exceeds 5 years in Ireland at current utility rates, noting payback periods demanded by industry are typically in the range of 3 years. eHeat welcomes the recent update to the SEAI Support Scheme for Renewable Heat (SSRH) in March of this year, offering an installation grant of up to 40% to a maximum of €1,000,000 linked to efficiency of a given installation. Our members see this is a positive step forward to accelerating decarbonisation of industrial heat and hope to see this expanded in the future. We note there is an existing mechanism for on-going support for biomass and anaerobic digestion based renewable heating, with a 15-year tariff. Expanding this scheme to include a tariff for industrial heat has the potential to accelerate decarbonisation of industrial heat further and, increase uptake of this grant scheme by guaranteeing industry long-term support in their decarbonisation efforts.

Another barrier to industry uptake of electrified heat is the connections policy administered by ESB Networks. The installation of electrification technologies, in some instances, requires an increase in the maximum electricity demand level, known as Maximum Import Capacity (MIC), to a given industrial facility. This process involves considerable negotiation with ESB Networks and requires considerable investment from the industrial user, leading to an increase in the payback period of electrification applications and decreases the attractiveness in uptake of this technology. An advantage of heat electrification technology, in comparison to traditional fossil fuel-based heating, is flexibility in its operation. There is potential to develop a flexible connections policy with ESB Networks, where operation can be scheduled in accordance with grid supply and demand, enabling greater utilization of intermittent renewable electricity at

times of surplus generation and, decreased stress on the electricity grid at times of high demand. This policy would lead to direct benefits in the context of carbon emissions related to industry and increased renewable electricity utilization.

eHeat notes the potential of this technology to abate 3 MtCO₂ annually, avoiding up to €300m of annual carbon taxes, decrease annual fossil fuel imports by €470m, increase utilization of surplus renewable electricity, delivering economic benefit of up to €200m a year and greater utilization of the electricity network generating an additional €50m of annual revenue. These benefits in tandem, could create an estimated 10,000 local jobs, increased air quality, health and well-being and, decrease electricity costs to consumers through more efficient use of the electricity grid.

In summary, the acceleration of electrified heat for industrial user has several benefits in the context of both economic development and mitigation of climate change. Accelerated adoption of this technology through a supportive policy framework will enable utilisation of indigenous renewable energy, facilitate security of Ireland's heat supply, increase the competitiveness of Irish industry in a global market, generate employment locally and make a sizeable contribution to Ireland's decarbonisation efforts through lower emissions.