Letter of Support (LoS)

Subject: Support for Combined Heat and Power and Thermal Networks/District Heating

We, 11 member countries of IEA DHC — The IEA Technology Collaboration Programme on District Heating and Cooling – and its sponsor, express strong support for the advancement of combined heat and power (CHP) and district heating in all contexts where it makes economic and environmental sense. This includes nuclear CHP in countries with existing nuclear power generation and countries contemplating new nuclear installations. The intention is to make sure that the full potential value of such installations is realized where they are already planned or in operation.

We also would like to highlight the critical role of the Boltzmann Institute in Canada in this endeavour. We support its engagement to increase the global share of thermal networks to enable the use of thermal energy from all types of power plants and promote district heating in general.

Currently, the world faces the pressing challenges of climate change and the need for sustainable energy solutions. Consequently, the utilization of the heat unavoidably released from thermal power plants and its temperature increase to a useful level can form an important part of national decarbonization strategies. This time-tested technology, known as combined heat and power (CHP), is already a great contributor to the green transition. It harnesses the excess heat from fossil and renewable thermal power generation and can also help to lower the cost of heat supply. This dual production optimises resource use and contributes significantly to the decarbonization of the provision of heat, often overlooked in climate change strategies. CHP can also help to mitigate the need for expansion of the electricity system.

As with other technologies, the incorporation of CHP into nuclear generation systems represents a transformative opportunity to enhance energy efficiency and reduce greenhouse gas emissions. By utilising the thermal energy produced during nuclear fission, nuclear CHP systems can deliver both electricity and useful heat, maximising the overall energy output and

achieving greater operational efficiency. By generating revenues for heat as well as for electricity, transitioning from electricity-only production to CHP stands to deliver benefits for the nuclear industry itself.

The engagement of the Boltzmann Institute is particularly vital in this context. With its expertise in district energy, energy systems in general and nuclear technology the Boltzmann Institute is well-positioned to lead development efforts aimed at transitioning the trend for more efficient, more economically viable and more climate-friendly resource utilization to the nuclear industry.

By collaborating with industry stakeholders, policymakers, and academic institutions, the Boltzmann Institute can facilitate the sharing of best practices, drive innovation, and promote the adoption of nuclear CHP technologies in countries where nuclear energy is already established or is proposed.

In conclusion, we fully support the Boltzmann Institute to continue driving forward the idea of nuclear CHP systems in countries with existing nuclear power generation and in countries contemplating new nuclear installations to enhance our energy infrastructure sustainably.

This position is fully supported by the following member countries of IEA DHC:

Belgium, Canada, China, Denmark, Finland, France, Italy, Korea, Norway, Sweden, the Netherlands and its sponsor the International District Energy Association (USA)

On behalf of the supporting countries - Yours sincerely,

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