

Sustainability through Heat Commodification

Kamel Hooman

Delft University of Technology, Netherland

Abstract

The IEA (International Energy Agency) declares our current global situation as an “energy crisis significantly boarder and more complex than those that came before”. Unfortunately, we still heavily rely on gas. Despite the war, in 2023, our gas consumption in The Netherlands only dropped by 22% compared to the year before while our residential sector consumed gas more intensely than the industry. In either case, gas is burnt to generate heat. The generated heat is used for different applications across a wide range of temperature; from around 30o C for underfloor heating to over 1000o C for industrial gas turbines. Heat market is a concept I am putting forward to, initially, facilitate our decarbonization and minimize our consumption of gas and other non-renewable energy sources.