

Stakeholder Consultation on Design and Operation Guidelines for Heat Pumps

Hall 2, ICSR, IIT Madras | 19th November 2024 | 10.00 am to 4.00 pm

OBJECTIVE

The industry and building sectors are India's largest energy consumers, making up over half of the country's final energy consumption and nearly a quarter of its total greenhouse gas (GHG) emissions. Achieving a sustainable future will require India to decarbonize its economy, striking a balance between economic growth and environmental sustainability. While India has demonstrated a commitment to energy efficiency through current policies and targets, there is an urgent need to accelerate the adoption of energy-efficient technologies to meet these goals.

Heat pumps are emerging as a vital technology in the global transition to sustainable energy in the heating and cooling sectors, offering immense potential to reduce GHG emissions and fight climate change. According to the International Energy Agency (IEA), heat pumps could cut global carbon dioxide (CO₂) emissions by at least 500 million tons by 2030. Their ability to decarbonize heat production for both buildings and industries has positioned them as a crucial technology for combating climate change and achieving net-zero targets.

In India, heat pumps are predominantly utilized in commercial and industrial sectors, contrasting with global usage, which spans domestic hot water and space heating. However, India still lacks specific design and performance guidelines tailored to its unique requirements for heat pump technology. This **Stakeholder Consultation** is being organized by the **Indian Institute of Technology Madras (IITM)** in collaboration with **Energy Efficiency Services Limited (EESL)** and the **International Institute for Energy Conservation (IIEC)** under the **Global Environment Facility (GEF)** Project "**Creating and Sustaining Markets for Energy Efficiency**" implemented by **United Nations Environment Program (UNEP)**.

The consultation will bring together the experts to deliberate on the preparation of guidelines for heat pumps. These guidelines will pave the way for the beginning of standard design and operations by integrating existing knowledge and empirical data. This consultation will seek expert opinions for the development of a comprehensive overview of heat pump technology and key elements for ensuring optimal performance, energy savings and long-term reliability in residential, commercial and industrial applications which will lead towards the enhancement in system performance and efficiency, accelerate adoption of heat pumps in buildings and industry.

The consultation will be attended by stakeholders including representatives of Heat Pump OEMs, Technical Experts, Industry associations and Academia.

AGENDA

09:30 hrs	Registration
10:00 – 10:15 hrs	WELCOME ADDRESS Prof. Satyanarayanan Seshadri
10:15 – 10:25 hrs	CONTEXT SETTING Mr. Abhishek Dhupar, Associate Director, IIEC
10:25 – 10:35 hrs	INAUGURAL ADDRESS Mr. Girja Shankar, General Manager (Tech), EESL
10:35 – 10:45 hrs	TEA/COFFEE BREAK
10:45 – 12:15 hrs	Overview of Design and Operation Guidelines on Heat Pumps Mr. Sriram
12:15 – 13:00 hrs	Open House Discussion with Stakeholders
13:00 – 14:00 hrs	Networking & Lunch
14:00 – 14:30 hrs	Development of IoT and Standards for the Performance of Heat Pumps Mr. Jayesh Jain, EnergyEta.ai
14:30 - 15:15 hrs	Open House Discussion with Stakeholders
15:15 - 15:30 hrs	Concluding Remarks