



New Delhi, October 05, 2023

Advisory

Subject: Energy Conservation in Space Cooling through recommended temperature settings of 23-25°C in Hotels with 3 Star and above rating

Bureau of Energy Efficiency (BEE) under the aegis of Ministry of Power (MoP) implementing various energy efficiency and conservation schemes as per the mandate given under Energy Conservation (EC) Act 2001, with the primary objective of reducing the energy intensity of Indian economy. As per clause 14 (t) of the EC Act 2001, Central Govt. shall take "all measures necessary to create awareness and disseminate information for efficient use of energy and its conservation". With the objective to reduce energy intensity, in the area of space cooling, BEE initiated Star Labelling of Air Conditioners to improve efficiency in commercial and residential buildings. Thereafter, the Energy Conservation Building Code (ECBC) was published to optimise demand in space cooling sector.

The temperature level maintained in the buildings by using cooling systems, have significant impact on the energy consumption. Typically, room temperature is set between 20-21°C whereas, as per the comfort chart, it is suggested that ideal temperature could be maintained around 23-25°C. It is estimated that by increase in room temperature by 1 degree Celsius (°C), we can save about 6% of electricity. Considering change from 20°C to 24°C, there exists potential to increase at least 4 °C, which may lead to savings of about 24% of electricity consumption. Annually, this may translate to saving potential of about 10 billion units of electricity (worth Rs 6000 crore), by adopting simple measures like adjusting the temperature setting of cooling system between 23-25°C.

In this context, Bureau of Energy Efficiency, recommends following measures to the large consumers of electricity with higher cooling demands:

1. All Hotels with 3 Star and above ratings are suggested to maintain the internal temperature between 23-25°C with appropriate humidity and airflow to conserve energy and for the health benefits of occupants, subject to operational and functional requirements.
2. Personnel responsible for operation and maintenance of air conditioning/cooling system may be suitably trained to maintain such parameters without adversely affecting the comfort conditions for the occupants.





3. If desired by the occupants, the Hotels may allow them to change temperature according to their needs, however, the Hotels should maintain 23-25°C as default temperature, in normal circumstances.
4. Similar measures can be adopted by other large establishments such as
 - a) Airports,
 - b) Large Institutions
 - c) Shopping Malls
 - d) Corporate offices
 - e) Cinema Theatres, and
 - f) Large Auditorium with capacities above 500 persons.
5. Any deviation to such Guidelines should normally be considered with the approval of head of the organization.
6. The above benefits may also be disseminated to the occupants through suitable communication.
7. The above suggestions are not applicable for winter climatic conditions.

Abhay Batra
Director General
Bureau of Energy Efficiency

