

## Workshop on "Energy Benchmarking Roadmap for Commercial Buildings in India "

Organized by USAID ECO-III Project

Date: 26<sup>th</sup> February (Saturday) Time: 10.30 hrs – 12.00 hrs (90 minutes) Venue: Hall No-6, Mezzanine Floor, Pragati Maidan, New Delhi





Indian building industry has witnessed huge interest in the field of energy performance in the last decade. Energy Conservation Building Code and green building rating programs such as LEED-India (Leadership in Energy and Environment Design) and GRIHA (Green Rating for Integrated Habitat Assessment) have further fuelled this surge in interest. These rating programs are based on design intent rather than actual performance at the building level. Consequently, they are not useful for benchmarking that can be used for rating of existing buildings and rewarding performance through a systematic evaluation and award scheme. Finally, they fail to provide defendable energy consumption targets for new buildings, which have serious performance and policy implications.

Energy benchmarking is a process to create an energy consumption profile for buildings. It is the process of comparing the energy performance of a particular building to a range of energy-performance values of similar buildings and arriving at a performance score or statistic. A database of existing buildings along with their energy consumption and related parameters is a prerequisite for any performance based ratings. Countries like USA have been collecting such data in the form of Commercial Building Energy Consumption Survey (CBECS) for many years and have used it to develop Energy Star and LEED-EB ratings. Electricity use in the commercial building sector in India has been growing at about 11-12% annually, which is much faster than the average 5-6% electricity growth in the economy. As the building population increases, the energy consumption profile for the building stock also changes. Keeping these factors in mind, there is a need for institutionalizing an initiative like CBECS in India to collect building level as well as system (end use) level information.

A national initiative to collect and analyze standardized building energy use data (currently for 860 commercial buildings) has been carried out by the Bureau of Energy Efficiency (BEE) in partnership with the USAID ECO-III Project. ECO-III Project helped develop a standardized questionnaire for collecting energy data from commercial buildings and has led the exercise to ensure quality assurance of the collected data and subsequent statistical analysis. ECO-III is also recently developed an online benchmarking tool using building energy use data from the survey. This benchmarking tool helps building owners to identify where their buildings stand in terms of building energy performance, as compared to the performance of a national benchmark developed using the actual performance of energy consumption data from the database. Presently ECO-III Project is developing "Benchmarking Roadmap for Commercial Buildings in India" document, considering the need for continued effort in this area. With above background in mind, ECO-III Project is organizing this panel discussion.

## The following points will be discussed in the panel discussion:

- > Institutionalizing the national level energy data collection efforts
- > Availability of building-level and system-level energy consumption data in public domain.
- Implication of good benchmarked data for ECBC, Star-rating program for buildings, LEED-EB, Performance Contracting, and Best Energy Management practices within organizations.
- Digitalization of energy data to offer next generation of integrated solutions





## **Panel Moderator:**



Aalok Deshmukh USAID ECO-III Project

## **Panelists:**



Sanjay Seth Bureau of Energy Efficiency (BEE)



**Dale Sartor** Lawrence Berkeley National Laboratory (LBNL)



**Satish Kumar** Schneider Electric India



**Saket Sarraf** ps Collective



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