



## Panel Discussion on An Economy-wide Quantified Goal on Energy Efficiency in India

19 July 2023, 04:45 P.M. - 06:00 P.M. (IST) | Duration: 75 minutes

Venue: Salao 2, The Grand Hyatt, Goa

### Background Note

The energy sector accounts for [three-quarters of global emissions](#) and transforming the energy sector becomes critical in realizing the goals set under the Paris Agreement. Apart from economic returns, energy efficiency delivers environmental benefits through GHG emission reduction.

[International Energy Agency \(IEA\)](#) estimates that GHG emissions in 2017 were 12% lower due to energy efficiency measures since 2000 than in the absence of such interventions (IEA, 2023). According to another [IEA study](#), globally, initiatives aligned with Lifestyle for Environment (LiFE) can lead to 20% emission reduction which includes measures related to energy efficiency (IEA, 2023).

Several countries have realized the importance of energy efficiency and have included energy efficiency as an important component in their climate/decarbonization plan, including the European Union. [EU](#) adopted an increased and binding energy efficiency target of 9% in 2030 compared to the projections of the 2020 Reference Scenario. In 2022, the Commission increased the energy efficiency target from 9% to 13% compared to the 2023 reference scenario.

With an aspiration to become a USD 5 trillion economy by the middle of this decade, India is one of the fastest developing countries and has its unique challenges of ensuring economic growth, proving energy security to its vast population and ensuring energy transition. Energy costs form almost a quarter of India's industry annual operating cost. While rising energy prices are rising, there is a need to reduce and control energy prices along with climate mitigation as a co-benefit. This calls for investing in energy, making energy usage more efficient by adopting energy-efficient technologies. Meeting these goals requires a transformation of existing India's energy systems. According to a [study by TERI](#), it is estimated that energy efficiency measures can result in energy savings of 338 Mtoe (5-12per cent) over the period 2021–2041 as compared to the reference scenario.

[National Mission for Enhanced Energy Efficiency \(NMEEE\)](#) is one of the eight missions under the National Action Plan on Climate Change (NAPCC). Initiatives under NMEEE include- Perform Achieve and Trade Scheme (PAT); Market Transformation for Energy Efficiency (MTEE); Energy Efficiency Financing Platform (EEFP); and Framework for Energy Efficient Economic Development (FEEED). While sectoral initiatives (for instance in industry, buildings, transport, agricultures) exist under NMEEE which is implemented by BEE and EESL, aggregate macro-economic quantified and



time-bound targets are presently not in place. SDG 7.3 is on energy efficiency which sets a target of doubling the global rate of improvement in energy efficiency by 2030. In India's [national indicator framework](#) on SDGs, the indicator is "energy intensity measured in terms of primary energy and GDP, (in mega joules per rupee)". Energy intensity as an indicator has been [critiqued](#) since energy intensities of sectors are influenced by changes in the structure of the economy.

Presently India's [four quantified climate targets](#) which consider a timeframe of 2030, under the updated NDCs include the following: Reduce emissions intensity of its GDP by 45 percent by 2030, from 2005 level; Achieve 50 percent cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030, with the help of transfer of technology and international finance; Create additional carbon sink of 2.5 to 3 billion tonnes of CO<sub>2</sub> equivalent through additional forest and tree cover by 2030; Reaching net-zero by 2070. India has a quantified emissions intensity goal as well as a quantified renewable energy goal but does not have one specific to energy efficiency.

With the above background, it becomes important to deliberate on the merits and methods of energy efficiency goals and targets in India. While renewable energy takes up a chunk of the public narrative space for clean energy transitions, there exists an imperative need to create a similar understanding on energy efficiency, especially through an economy-wide energy efficiency goal, for example in MTOE terms.

This panel discussion will deliberate on the need, international practices, methods and issues of having an economy-wide quantified energy efficiency target for India, as a part of the country's clean energy and climate target. This can also contribute to India's NDC targets to meet the goals set in the Paris Agreement.

The deliberation will seek to answer the following key questions:

### **Key questions for discussions**

1. Should India have an aggregate, quantified, time-bound economy-wide energy efficiency target to drive India's clean and sustainable energy commitments? What should be the unit (for instance in MTOE terms)?
2. To what extent the global indicator is able to help in monitoring progress on SDG 7.3 which aims to double the global rate of improvement in energy efficiency by 2030 using 2015 as a baseline?
3. What good practices and methodologies exist on setting an economy-wide energy efficiency target for India?
4. What approaches are needed? Top-down? Bottom-up? How can sectoral and sub-national targets contribute in setting a macro-level target on energy efficiency?