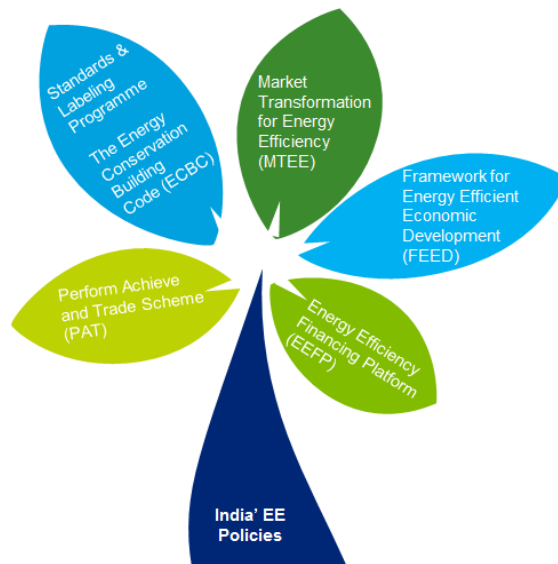




## Making Energy Efficiency Markets Work

Energy Efficiency (EE) is the lowest cost way of meeting India's energy needs and can enable India to decouple rising growth from rising emissions. As a result India announced an ambitious climate change policy to make the Indian economy significantly more energy efficient.

Given this context, energy efficiency will play a critical role in delivering green growth in India. This realisation stimulated demand for an India-UK energy efficiency partnership. The partnership jointly commissioned advocacy, technical assistance and outreach initiatives, based on UK experience and expertise that has supported innovations and deployment of EE. In particular targeting buildings, standards and labelling, demand side management, and industrial efficiency, and finance.



## KNOWLEDGE BRIEF

India has shown considerable foresight in deploying EE as one of the primary weapons in combatting climate change.

India's Standards and Labelling program, Perform, Achieve and Trade scheme, and The Energy Conservation Building Code are major steps towards meeting India's EE and energy security goals.

The Indo-UK EE journey has led to changes in industrial and domestic consumers of energy leading to an overall market shift.

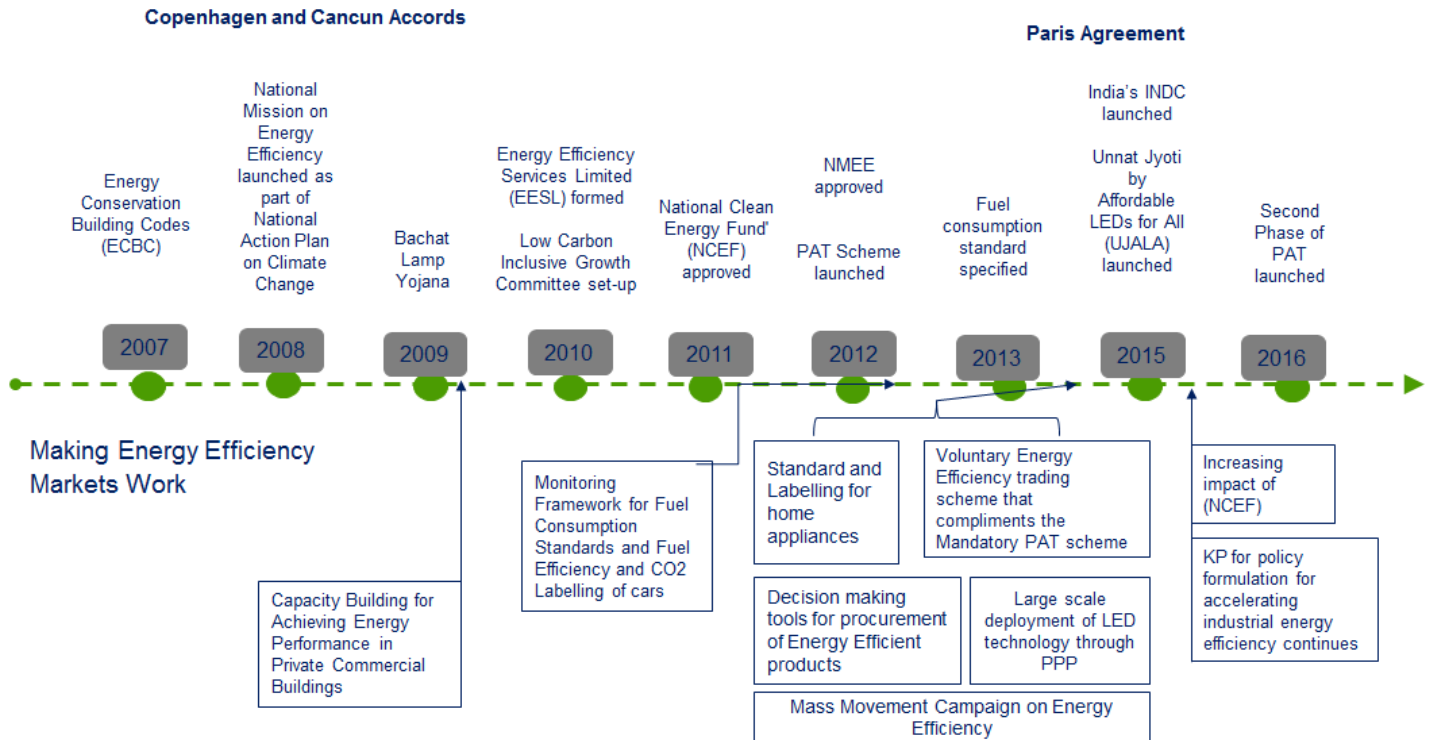
Viability of EE investments depend on national and states policies and actions

To support better coordinated and integrated policy-making and implementation, multi-level government stakeholders and non-government actors, including relevant policy and technical think-tanks, development partners and the private sector need to work together.

This partnership has helped unlock the Indian EE sector. Leading to longer term benefits for Indian companies including technology providers, financial investors and advisory firms at the same time showcasing UK expertise in energy efficiency.

Figure 1 below set's out the past decade's work India- UK partnership to support India's pathway in the EE sector.

India's pathway in Energy Efficiency Measures since 2007



Early pilot projects focused on developing baselines, defining energy standards, undertaking market need-assessments, developing trading mechanisms and promoting awareness building. Subsequent work developed investment strategies with the [Bureau of Energy Efficiency \(BEE\)](#) of India. Key stakeholders such as industries, business confederations and other end-users of energy were engaged, to contribute to this process and ensure buy in.

### Creating Demand for EE

Early work identified that there was significant potential to create a new market for energy efficient green buildings but there was a need to create more demand. The result was a project titled "Capacity building of [private commercial building](#), [hospitals](#) and [schools](#) on energy efficiency," designed to stimulate demand sector.

In addition, the UK has worked with Indian partners to develop monitoring frameworks for Fuel Consumption Standards and Fuel Efficiency. A particularly successful initiative was [scaling up installations of low carbon energy efficient LED street lighting](#); and developing guidelines and decision-making tools for procurement of Energy Efficient

" People are increasingly becoming aware of the benefits of energy efficient appliances because energy-efficient appliances start repaying their cost from the moment they start working."

**Dr. Ajay Mathur, Director General of BEE (from 2006 till February 2016)**

Source – The Financial Express

products. As the India-UK EE partnership developed support shifted to India's domestic and industrial energy efficiency sectors.

## Standards and Labelling Scheme

Building on British expertise the UK supported India with the successful start of [the Standards and Labelling initiatives of BEE](#), including: a) advice on labelling for air conditioners (ACs), frost free refrigerators and [washing machines](#), and b) pilot schemes for accelerated deployment of consumer-based energy efficient appliances, alongside outreach activities such as the "[Mass awareness campaign strategies for BEE](#)" project that have been designed to influence consumer behaviour. Collectively, these measures have promoted large scale take up of energy efficient domestic appliances in India.

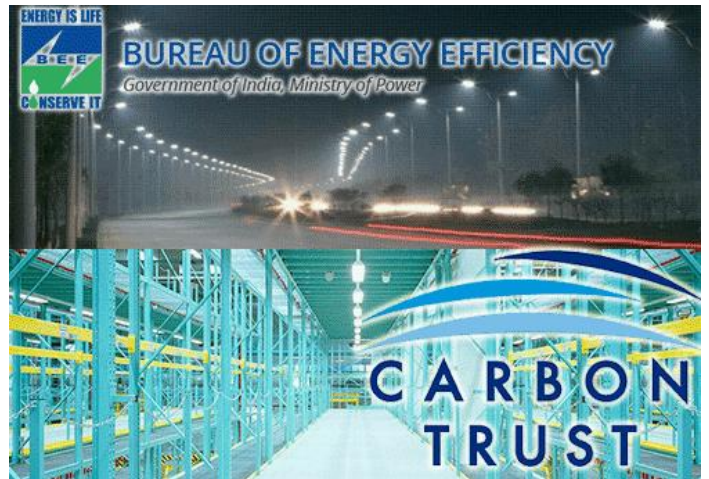
## Perform Achieve and Trade Scheme

The UK then focused support on Industrial energy efficiency by supporting India's [Perform Achieve and Trade Scheme \(PAT\)](#). Using UK experience to think through delivery frameworks for India's "[Voluntary Energy Efficiency trading scheme](#)", which compliments the "[Mandatory Perform Achieve and Trade \(PAT\) scheme](#)". These activities stimulated debate on the potential for energy saving certificates (ECERTs) for the emerging domestic EE market. This work helped set targets for Phase 1 of PAT (2012 – 2015). Lessons were drawn from various international trading schemes. **According to government calculations, the first three-year cycle of PAT (2013- 15) led to reductions of 23 million metric tons CO<sub>2</sub>e leading, roughly equivalent to the output of five coal-fired power plants.**

## Industrial Energy Efficiency Fund (IEEF)

Further UK partnerships helped design the [National Industrial Energy Efficiency Fund \(NIEEF\)](#) with BEE, India's nodal agency for EE programmes. The overall objectives of the NIEEF are to help industry reduce energy costs, to support the delivery of India's Intended Nationally-Determined Contribution, and to boost the competitiveness of India's industry by facilitating increased energy efficiency. Energy saving opportunities in the industrial sector can provide clear bottom line benefits for industrial businesses, enabling them to dramatically improve their cost competitiveness. **A key success of this work was its [stakeholder engagement process](#) - which**

**included government agencies, industry, financiers, technology providers, and energy service companies to ensure that the fund design was effective in transforming the Indian energy efficiency market. Awareness raising is crucial both amongst companies themselves as well as within the financial sector in order to support investment in energy savings technologies.** The NIEEF will also leverage the [Carbon Trust's](#) experience delivering energy efficiency advice and finance to businesses for over 10 years both in the UK and internationally.



## Knowledge Exchange Platforms (KEP) for Large Scale Industries

Run by the Institute for Industrial Productivity in collaboration with BEE, the [Knowledge Exchange Platform](#) covers eight industrial sectors. The UK support to this platform facilitated exchange of best practice between industrial players on

energy management and innovative technological choices. This platform has hosted discussions on policies, capacity building and showcased learning of on best practice.

## Opportunities Ahead:

- Mobilising significant investment in end-use energy efficiency still represents a huge challenge, demanding different ingredients for success in different sectors.
- Even though industries are becoming better informed of EE opportunities, the scale and size of EE investments does not, to-date, match the potential it has. More innovative financing mechanisms need to be developed.
- The buildings sector is now catching up. However, developers of larger-scale commercial buildings are more aware of energy efficiency improvements than those in the residential sector. Implementation of ECBC needs strengthening.
- Household spending on energy efficiency remains an issue due to significant subsidies on electricity and transport fuels. More appliances should be brought under mandatory S&L scheme complemented by mass awareness campaign.
- Currently, investment flows are far from evenly distributed across Indian states due to an absence of engaged dialogue with and amongst State policy makers and private investors. More sub-national EE platforms should be encouraged.

## List of Projects:

<a href="#">Local Capacity Building for Achieving Energy Performance in Existing Private Commercial Buildings in India, ICF International</a>
<a href="#">Facilitate policy formulation for accelerating industrial energy efficiency in India, Institute for Industrial Productivity</a>
<a href="#">Increasing the impact of the National Clean Energy Fund (NCEF), Carbon Trust</a>
<a href="#">Large scale deployment of LED technology for public lighting through public-private-partnership model, The Climate Group</a>
<a href="#">Mass Movement Campaign on Energy Efficiency, Edelman India.</a>
<a href="#">Analysis of the potential of Mandatory Trading in energy saving certificates to drive energy efficiency in the Indian industrial sector, Camco UK in partnership with CII</a>
<a href="#">Analysis of the potential of Voluntary Trading in energy saving certificates to drive energy efficiency in Indian Discom, Camco UK in partnership with CII</a>
<a href="#">UK—India Collaboration for a Prosperous Low Carbon Economy</a>
<a href="#">Opportunities in India's low carbon sectors for international business</a>



British  
High Commission  
New Delhi



*This document is an output from a project supported by FCO India, under Prosperity Fund Program. While every effort has been made for the correctness of data/information used in this report, neither the authors nor AIDMI or CDKN accept any legal liability for the accuracy or inferences for the material contained in this report and for any consequences arising from the use of this material.*

