

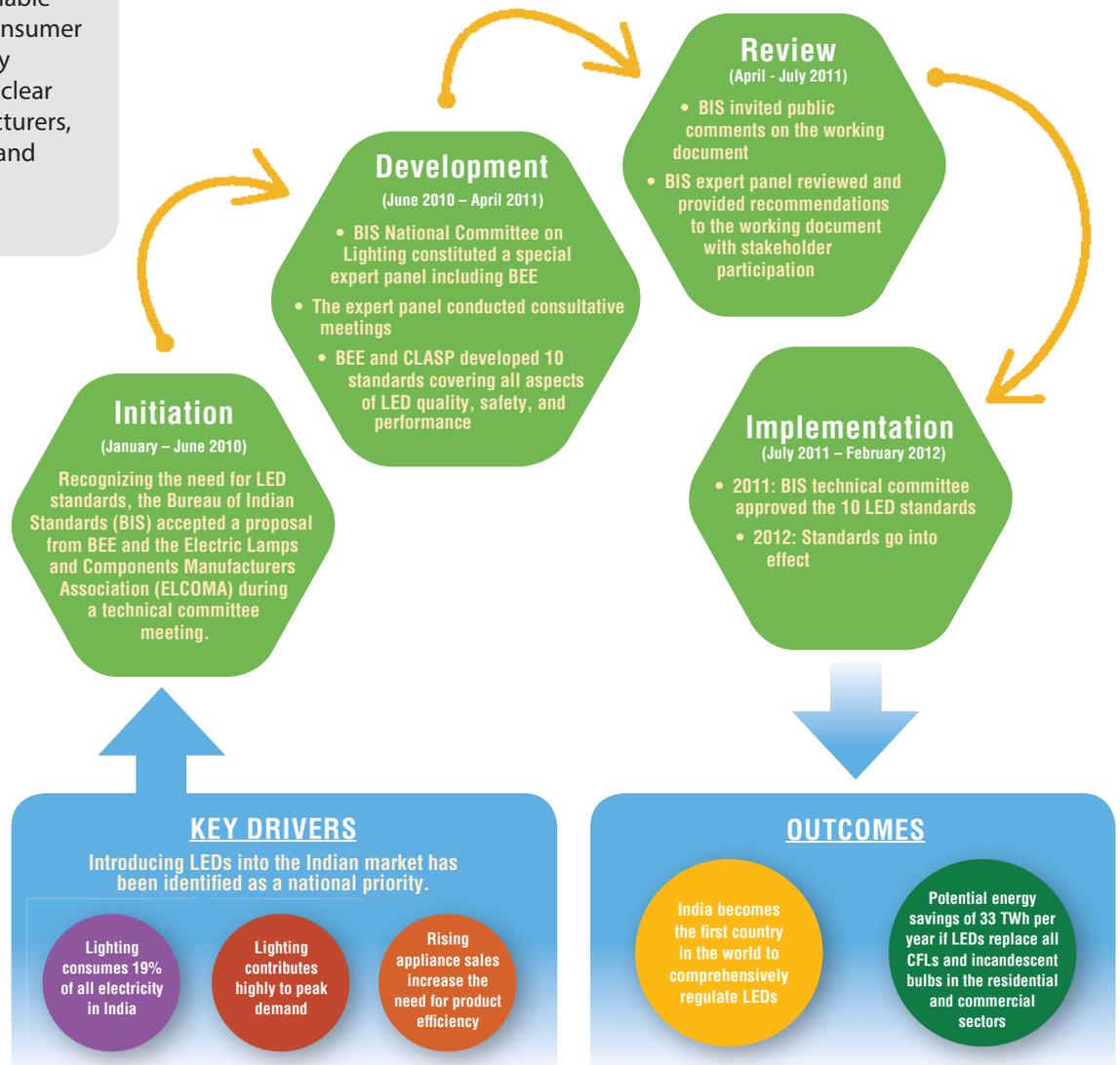
LED Standards Development in India

Why LED Standards?

Quality, safety, and performance standards ensure that LED products available on the market meet consumer expectations for quality and reliability, provide clear guidelines for manufacturers, and facilitate national and regional procurement programs.

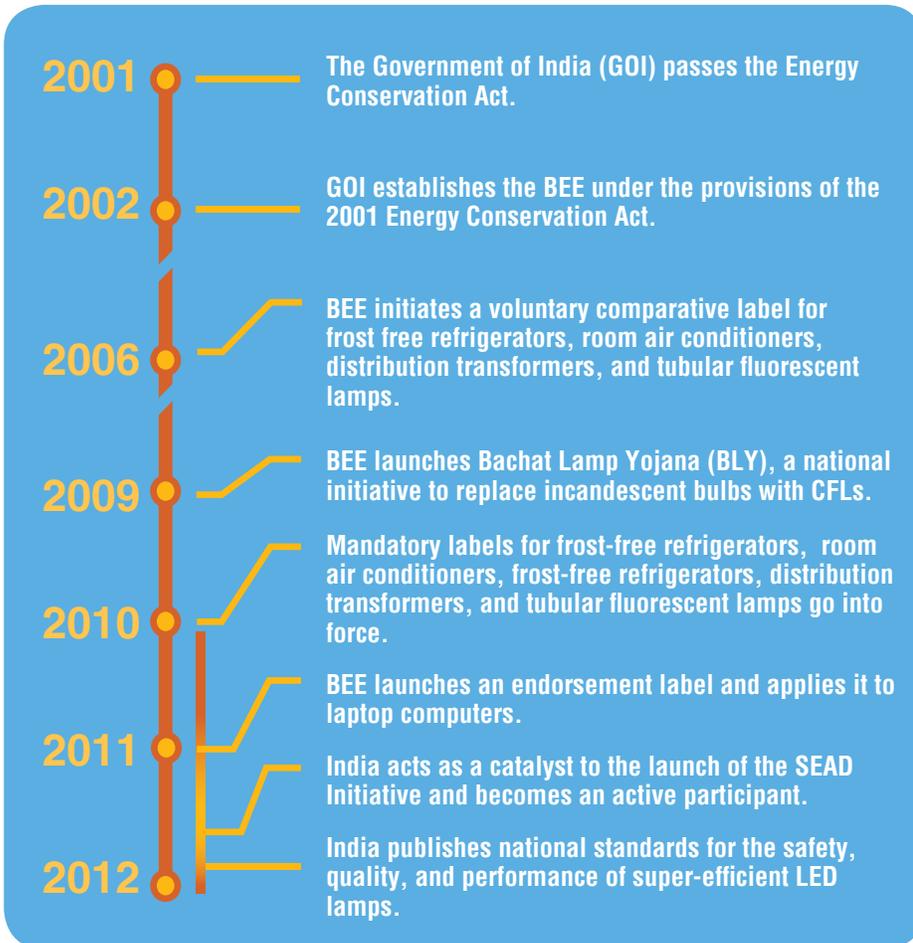
Advancing Super-efficient Lighting

Over the past decade, India has made great strides in developing and implementing energy efficiency measures for appliances and lighting. The development of comprehensive LED standards represents a new initiative to encourage the adoption of super-efficient products in the market.



Appliance Energy Efficiency in India

India's energy efficiency standards and labeling (S&L) program is administered by the Bureau of Energy Efficiency (BEE). To date, the program includes national standards and labels for over a dozen products; consumer, retailer, and manufacturer outreach; and product testing laboratory development.



Details of the Standards

India's LED standards are based on IEC publications, and the method of measurement for electrical, photometric and color characteristics are based on IESNA standards.

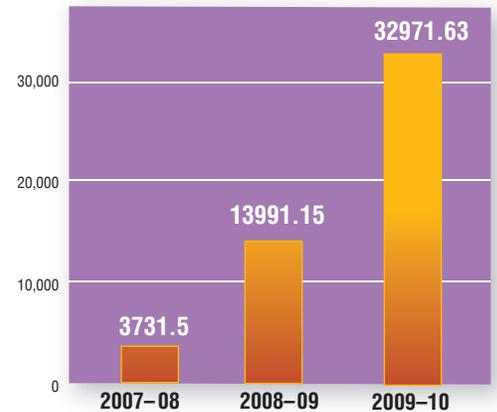
In addition to terms and definitions for LEDs and LED modules in general lighting, India's ten LED standards incorporate the following:

- Self-Ballasted LED Lamps for General Lighting Services: Safety Requirements
- Self-Ballasted LED Lamps for General Lighting Services: Performance Requirements
- LED Modules for General Lighting: Safety Requirements
- LED Modules for General Lighting: Performance Requirements
- Lamp Control Gear: Particular Requirements, D.C. or A.C. Supplied Electronic Control Gear for LED Modules
- DC or AC Supplied Electronic Control Gear for LED Modules: Performance Requirements
- Method of Measurement of Lumen Maintenance of Solid State Light (LED) Sources
- Method Of Electrical and Photometric Measurements of Solid- State Lighting (LED)
- LED Luminaires for General Lighting Purposes: Performance Requirements
- Photobiological Safety

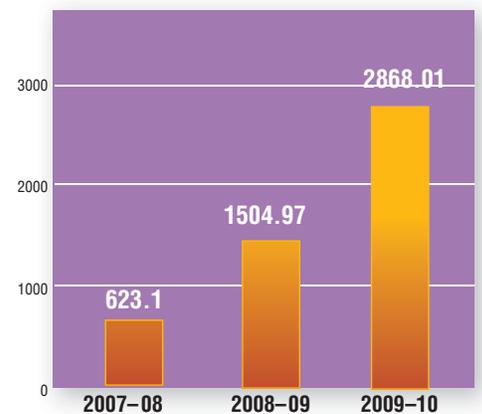
For more information, please visit: clasponline.org/IndiaLEDs

By increasing appliance efficiency, India's S&L program has decreased the burden appliances place on the electric grid.

Cumulative Electricity Savings (GWh)



Avoided Generation Capacity (MW)



Source: National Productivity Council, Verified Energy Savings with the Activities of Bureau of Energy Efficiency for the year 2009-10.

CLASP Resources & Tools Online

The CLASP website is a hub for global S&L best practice and provides online tools and resources to S&L practitioners at no cost. To access CLASP's online resources and tools, please visit clasponline.org/ResourcesTools