



Energy Efficiency Services Limited  
India

## ***Accelerating Implementation of Energy Efficiency Programmes***

# Energy Efficiency Services Limited

Creating The Energy Efficient World



# Energy Efficiency Services Limited (EESL) – Who We Are



EESL is a joint venture company of four Public Sector Enterprises of Ministry of Power, Govt. of India



- **NTPC Limited** (India's Largest Power Generating Company | Market Cap as on 1<sup>st</sup> March 2016 – US \$15.5 billion)
- **Rural Electrification Corporation Limited** (Market Cap as on 1<sup>st</sup> March 2016 – US \$2.4 billion)
- **Power Finance Corporation Limited** (Market Cap as on 1<sup>st</sup> March 2016 – US \$3.1 billion)
- **Power Grid Corporation of India Limited** (India's Largest Power Transmission Company | Market Cap as on 1<sup>st</sup> March 2016 – US \$10.7 billion)

- **A public Energy Service Company (ESCO) under Ministry of Power**
- **Established in the year 2009**
- **100% share holding with Public Sector Enterprises**
- **Board of Directors represented by Ministry of Power and Bureau of Energy Efficiency (BEE)**



# What we do

## Execution Capabilities “Different Sectors”

- Irrigation Pumpsets
- Municipalities – “Public lightings, water pumping”
- Buildings – “HVAC, BMS, lighting solutions”
- Energy Efficient Appliances – “ Lighting, fans, air conditioners”
- Tri-generation
- Smart Grid

## Implementation of Central & State Gov. policies

- Standard & Labelling Programs
- Perform Achieve & Trade Scheme for industries

## Advisory Services

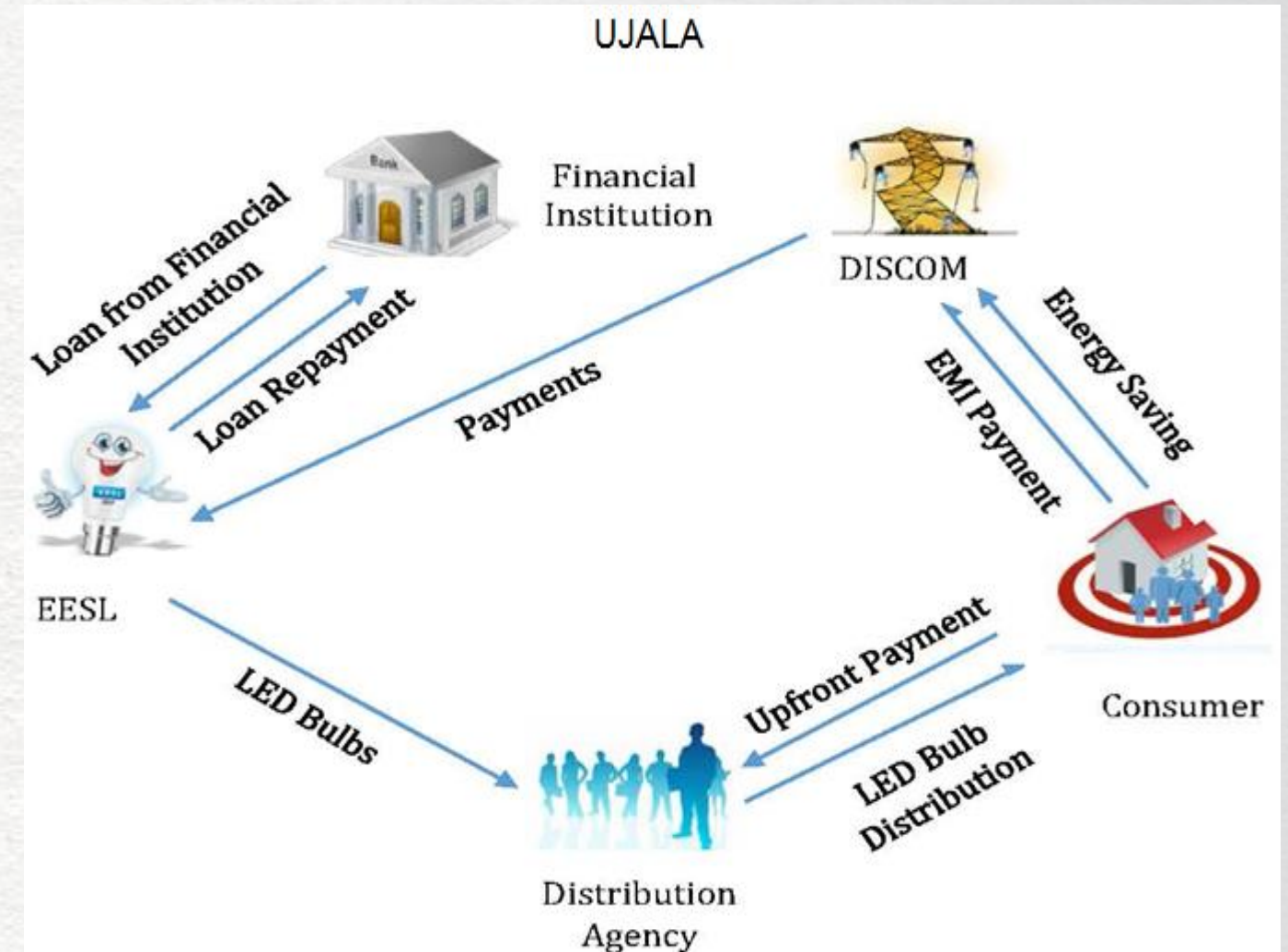
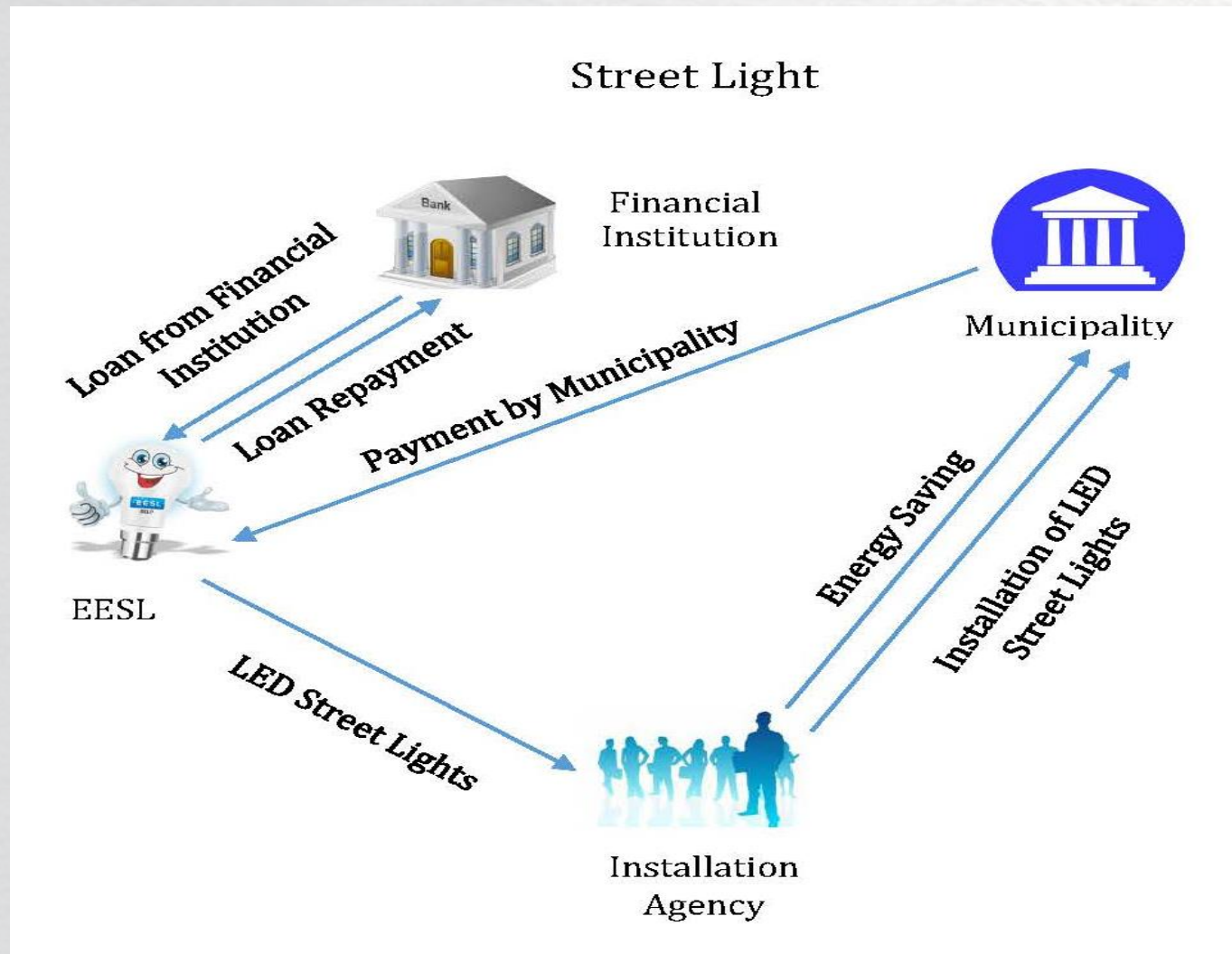
- Institutional capacity building
- Policy advice to the government
- Energy Efficiency under CSR activity

## Development of Private ESCOs

**Overall pipeline of projects worth approx. US \$ 2 billion**



# EESL – Business Models



- Two different models – both on the principle of aggregation of demand and **Pay As You Save (PAYS)** - Repayments from energy and maintenance cost savings
- **On Bill Financing Model**- Interventions directly with consumers – LEDs, Fans, ACs, etc.
  - Consumers (for LED bulbs and Fans) pay EMIs through their electricity bill for 1-2 years



# National LED Programmes by EESL - Targets

## Unnat Jyoti by Affordable LEDs for All (UJALA)

No of lights to be replaced in 3 years (March 2019)	770 million
Expected annual energy savings	105 billion kWh
Expected reduction of installed load	20,000 MW
Estimated capital investment (excluding O&M)	US \$1.23 billion
Annual estimated greenhouse gas emission reductions	79 million tonnes of CO <sub>2</sub>

## Street Lighting National Programme (SLNP)

No of street lights to be replaced	35 million
Expected annual energy savings	9 billion kWh
Expected reduction of installed street light load	1500 MW
Estimated capital investment (excluding O&M)	US \$5.38 billion
Annual estimated greenhouse gas emission reductions	6.2 million tonnes of CO <sub>2</sub>





**Prime Minister of India launches scheme for LED bulb distribution under Unnat Jyoti by Affordable LEDs for All (UJALA) in Delhi**




# Achievements of National LED Programmes


## NATIONAL UJALA DASHBOARD


Total LEDs distributed as on 06 JUN 2016 19:46

11,31,22,808

  
4,02,49,095 KWh  
Energy saved per day

  
INR 16,09,96,380  
Cost saving per day

  
2,941 MW  
Avoided Peak Demand

  
32,602 t CO<sub>2</sub>  
CO<sub>2</sub> Reduction per day

- Distribution of high quality LED Bulbs at very low price
- Achieving Competitive prices through bulk procurement
- Distributed 100 Million Bulbs in Just 1 Year
- Replacement Warranty up to 3 Years



# Achievements of National LED Programmes

## SLNP - DASHBOARD

STREETLIGHT NATIONAL PROGRAMME

Total Streetlight Completed as on Date: 06/06/2016

878,319



0.363 kWh

Average energy savings  
per light per day



318829.8 kWh

Average Energy Savings per day



264.63 tCO<sub>2</sub>

GHG Emissions Reductions



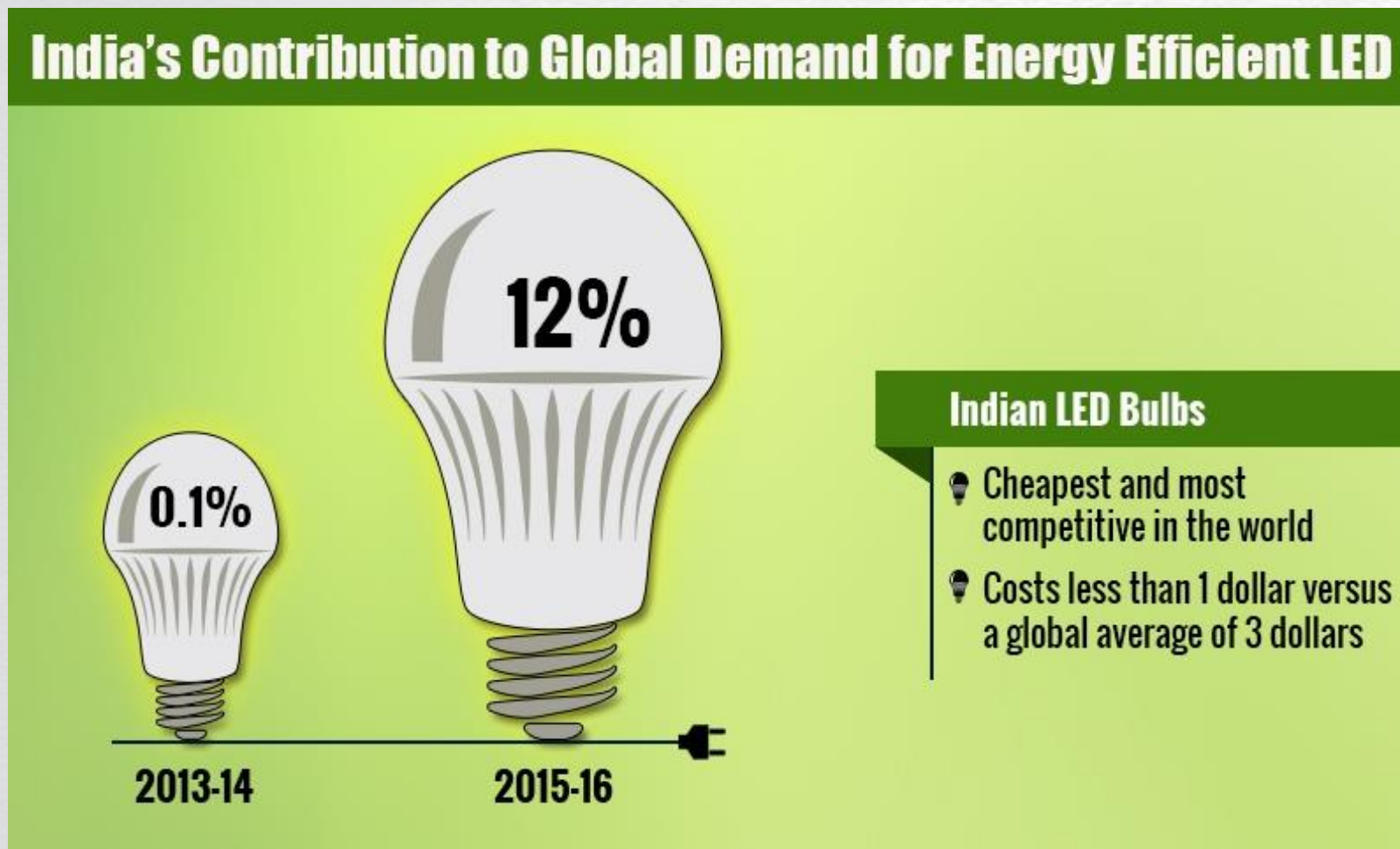
28.98 MW

Avoided Capacity

- Financially Viable Business Models
- Quality Assurance as per IEC Standards and Illumination as per NLC
- Comprehensive service and replacement warranty
- Intelligent Lighting Controls
- Minimum Savings of 50%



# Market Aggregation - outcomes



- Share of LEDs in Indian lighting market increased from less than 1% to 12% in 1 year

- Retail prices reduced by 1/3<sup>rd</sup> in last one year

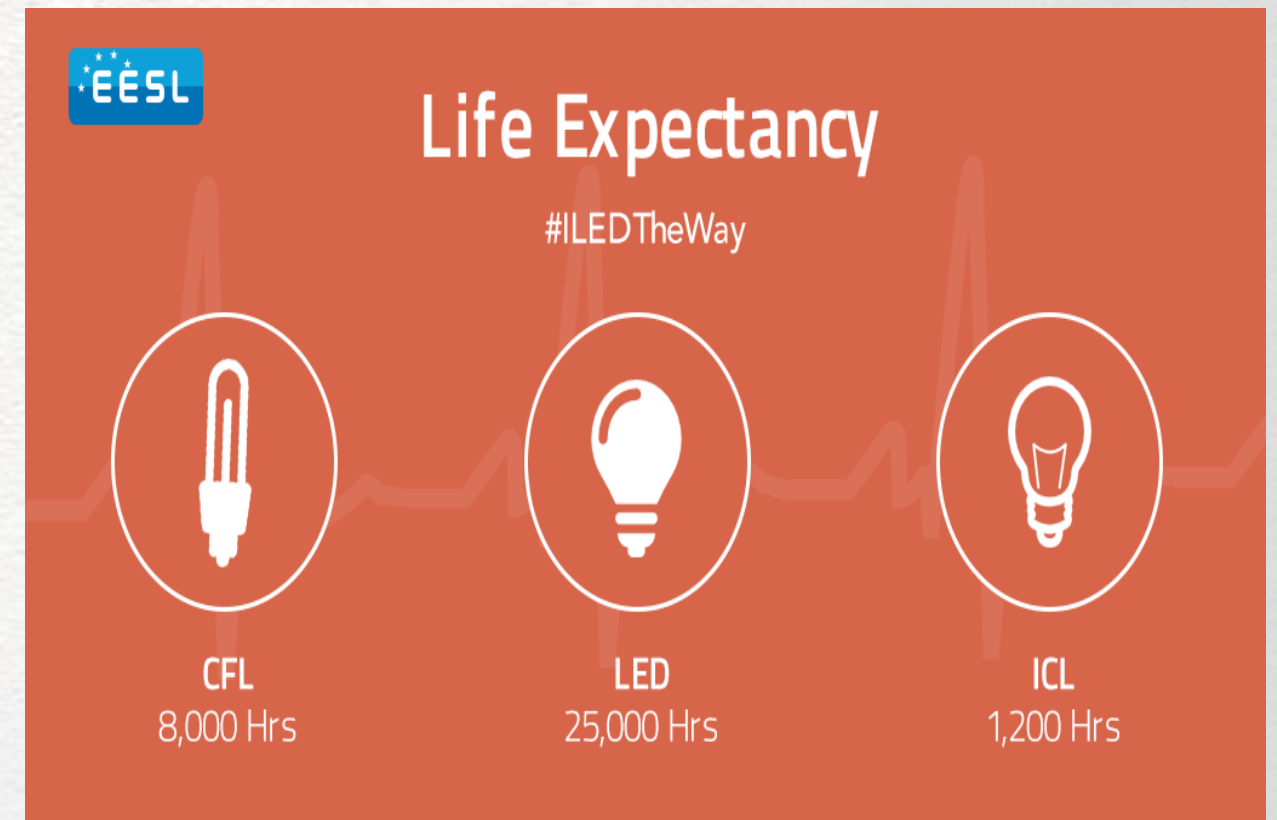
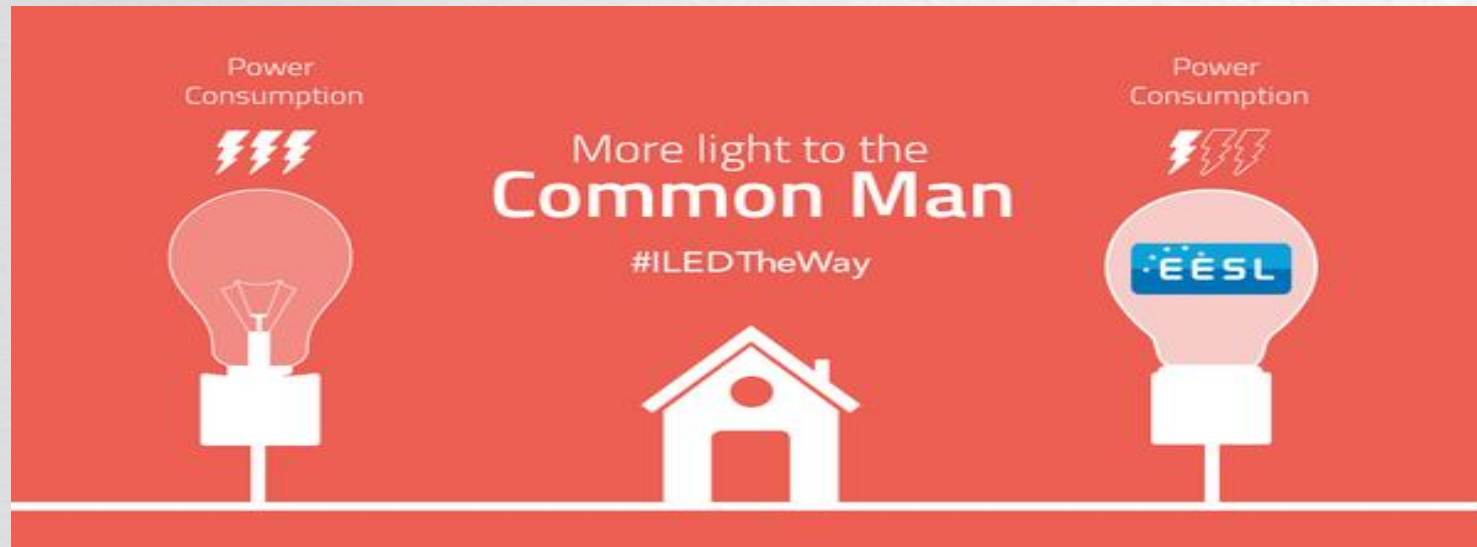
- Average price last year ~\$ 5-7 – now between \$ 1.5 - \$ 4

- High levels of awareness about LED products and their energy efficiency benefits

- Higher acceptability of 'LED model'



# UJALA Awareness Strategy





# Standardization, Monitoring & Verification and Outreach

- Standardised commercial documentation to enable scalability and replication
- Transparent online web based system to monitor the performance of Projects – [www.ujala.gov.in](http://www.ujala.gov.in) and [www.eeslindia.org/slnp](http://www.eeslindia.org/slnp)
- Outreach through mass media and [www.iLEDtheway.in](http://www.iLEDtheway.in)
- Third Party Monitoring verification Survey studies to validate the impact of Projects

You may watch “India’s LED bulb Energy Saving Campaign is A Bright Idea- Japanese Media Report” on You Tube link [https://youtu.be/LTD\\_5aNV3AE](https://youtu.be/LTD_5aNV3AE)



# Snapshots of LED Street Lighting in India

Conventional lighting



LED lighting





## Snapshots of Distribution of LED Bulbs





# International Operations

- EESL plans to establish overseas operations in 21 countries.
- Strategic partnership – “Advisory Services & Investment Portfolio” for sustainable development projects
- EESL offerings - “Innovative Business Solutions, Investment, Implementation Experience & Project Management Skill”







### **Contact Us:**

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