

Success Story

“Scaling Up Energy Efficiency”

An Indian Experience

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Regional Manager - UJALA
Energy Efficiency Services Ltd. (EESL), India



USAID
FROM THE AMERICAN PEOPLE



**KOREA ENERGY
AGENCY**



Energy Efficiency Services Limited (EESL)

– Who We Are

- Largest ESCO in the world
- Backed by Government of India and Promoters with net worth of over \$40 billion



A Maharatna Company



रूरल इलेक्ट्रिफिकेशन कॉर्पोरेशन लिमिटेड
Rural Electrification Corporation Limited
(भारत सरकार का उद्यम / A Government of India Enterprise)



पावरग्रिड
Power Grid Corporation of India

Our Promoters are Central Public Sector Enterprises:

- **NTPC Limited** (India's Largest Power Generating Company)
- **Rural Electrification Corporation Limited**
- **Power Finance Corporation Limited**
- **Power Grid Corporation of India Limited** (India's Largest Power Transmission Company)



EESL Business Models

- Pay-As-You-Save (PAYS) model – no upfront cost – payment from savings with performance SLAs – On-Bill-Payment for appliances and Performance Contract (PC) for institutions over 2-10 years
- All costs and a reasonable level profit part of annuity in case of PC. Similar model for appliances
- Aggregation of demand and transparent procurement to achieve economies of scale
- Demonstrated Deemed Savings Approach – annuity not linked to energy savings
- Turnkey implementation of projects
- Making EE 'Visible'- Real time monitoring of performance through online dashboards – www.ujala.gov.in, www.eeslindia.org/slnp, etc.



EESL - Programmes

- **UJALA - LED bulb programme** – over 237 m LED bulbs distributed by EESL in 2 years – private sector sold 300 m in the same time – market transformation in 2 years – LEDs most preferred lighting source . **IEA acknowledges UJALA as one of the best practices for energy efficiency globally.**
- **Street Lights** – About 2.4 m street lights replaced benefitting over 350 ULBs – total 4 m LED street lights out of 14 m in the country – complete replacement by 2019
- **Fans/ LED Tubes** – Started 4 months ago – 800,000 fans and 2.2 m LED tubes distributed
- **Ag DSM** – Agreement to replace 1.1 m agriculture pumps signed
- **Municipal Water/ Sewage Pumps** – over 150 cities energy audit work started
- **Buildings** – Agreements with large government facility owners signed – more than 2000 buildings beings aggregated



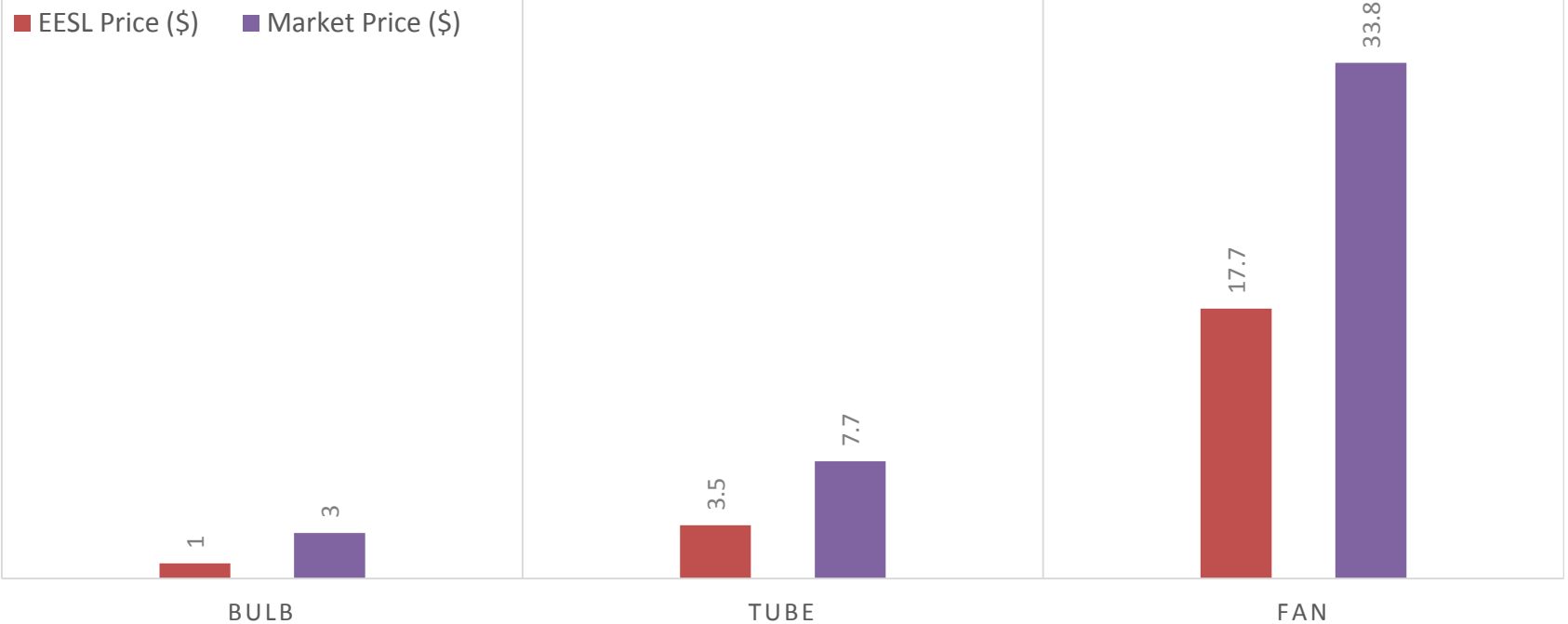
EESL – Programmes

- **Super Efficient AC** – Programme initiated – target buildings, institutions and B2B markets – orders placed for 100,000 ACs
- **Solar Street Lights** – Work on installation of over 400,000 solar street lights in remote rural areas underway – grant funded by Government
- **Solar Study Lamps** – Programme for providing solar study lamps to un-electrified households under a grant programme initiated – over 7 m lamps to be distributed
- **Solar Agriculture Pumps** – Pilot project for 40,000 solar agriculture pumps initiated
- **E-Mobility** – EESL is developing an intervention



Huge Cost Reduction with Same Quality Product !!!

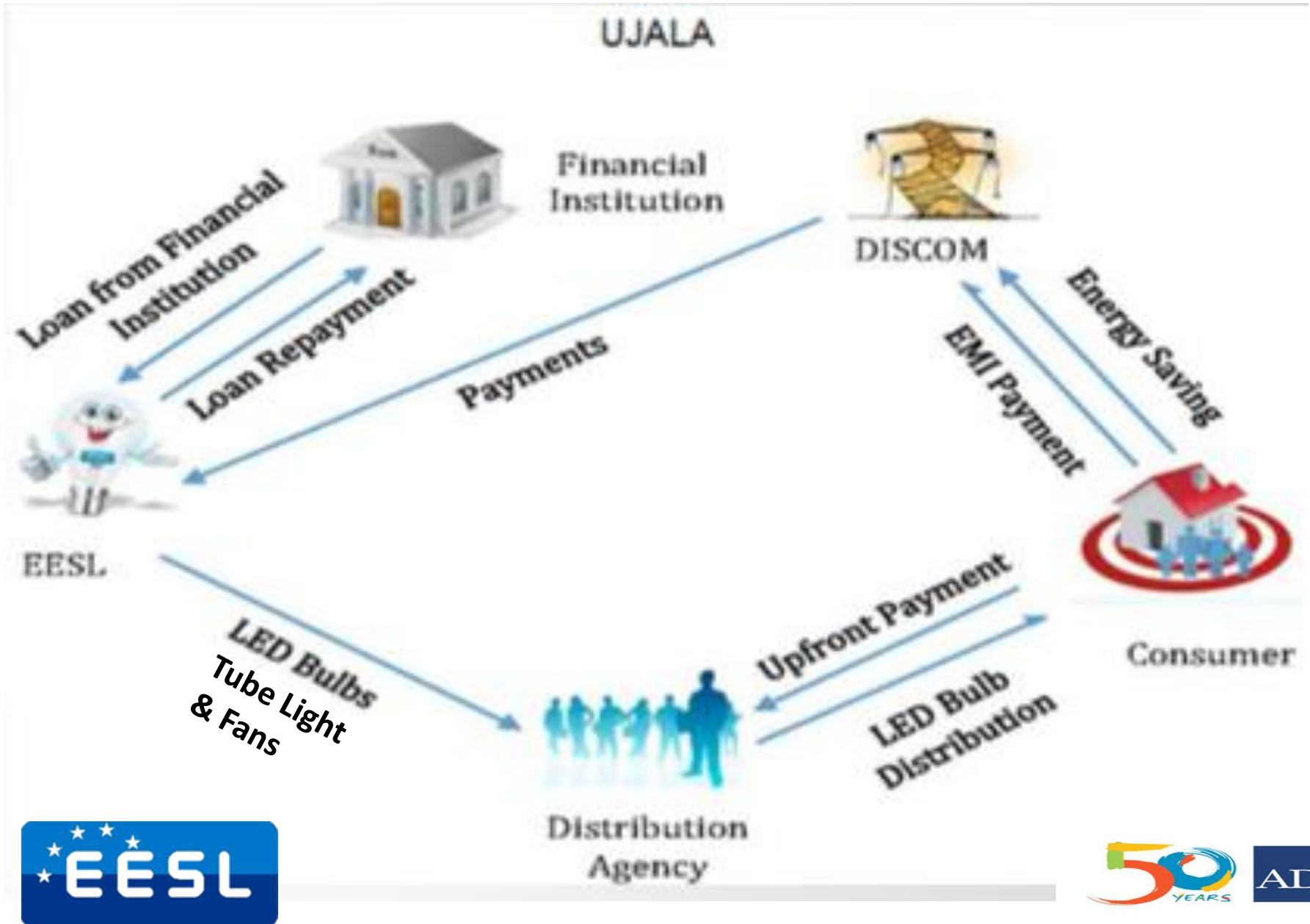
PRICE COMPARISON



Cost of LED, including distribution, awareness costs, EESL return on investments, all taken into account

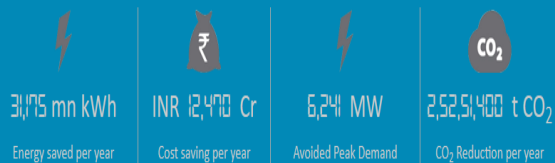


Operating Model of UJALA Program



Total LEDs distributed as on 07 JUN 2017 21:49

24,00,49,960

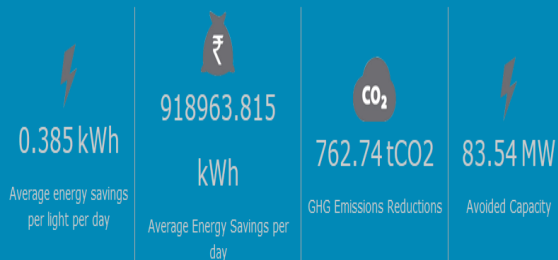


SLNP - DASHBOARD

STREETLIGHT NATIONAL PROGRAMME

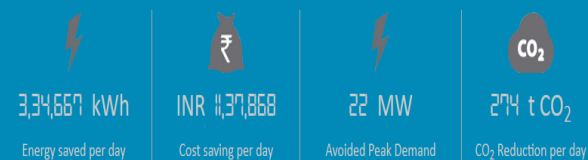
Total Streetlight Completed as on Date: 04/06/2017

2,386,919



Total Fans distributed as on 05 JUN 2017 08:44

8,63,657



NATIONAL TUBELIGHT DASHBOARD

Total Tubelights distributed as on 05 JUN 2017 08:27

23,71,267



GOVERNMENT OF INDIA
MINISTRY OF POWER

EEESL

BY INSTALLING 10 LEDS
AT HOME YOU SAVE

Annual Energy
1298.67 kWh

Annual Cost
₹5361.47

UJALA

For more information, visit www.ujala.gov.in



Financing of Programmes

- The entire portfolio funded by commercial capital and multilateral/ bilateral loans without any government budgets or grants
- The projects are funded by using up to 30% equity capital of EESL and balance by commercial/ bilateral – multilateral financing
- Commercial loans raised from variety of sources – Banks/ FI as term loans, corporate bonds
- Development of credit enhancement measures to reduce borrowing costs – products being finalised with World Bank and an Indian FI
- Partnership with private sector for joint investments in projects
- Use of GEF funds to create a revolving fund by leveraging other sources of finances



EESL & ADB: Demand-Side Energy Efficiency Sector Project

- Total project cost: **\$400 million**
 - ADB: \$200 million (approved on 30 Sep 2016)
 - Energy Efficiency Services Limited (EESL): \$200 million
- The project will have three outputs:
 - 1.5 million LED **street lighting**;
 - 42 million LED **bulbs, tube lights, and electric fans**; and
 - 225,000 efficient **agricultural water pumps**

Innovative Features

- Demand aggregation through Energy Service Company (ESCO) – *cost reduction and quality control*
- No up-front investment by the clients (100% by EESL)
- Benefit sharing between client and EESL as an ESCO
- Communications and outreach – an integral part of project
- Directly supporting households, farmers, gender elements
- Strong Climate Change benefits
- High scaling up and replication potential

EESL – Vision 2020

- A multinational company – world leader in clean energy and innovation
- Turnover of \$ 1.5b crore by 2020 from \$ 300 m last year - public listed company
- Sustained high growth rate – doubling of turnover every year till 2020
- Investments in appliances, buildings, pumping and RESCO of \$ 5 b
- Thrust on significantly enhancing international operations
- Improving and innovating the sustainable EESL business models to cover more sectors like SMEs, Industry



In India, Dhabas - A Lifeline on Highway, Becoming Energy Efficient



A themed Dhaba Food Garage on Delhi-Chandigarh highway showcases EESL's UJALA LED bulbs in a dazzling array



Dhabas are the lifeline of any Indian highway. Apart from providing food and refreshment to the travellers, these roadside eateries make our travel a comfortable and an enjoyable experience.

“LED bulbs have resulted in 50% savings in electricity bills. The bulbs are so bright that it feels like day even sitting inside the dhaba. There are sufficiently bright”

By:-

Owner,
79 Milestone Dhaba,
Delhi – Chandigarh Highway,
INDIA.



Thank You!

Nitin Bhatt

Energy Efficiency Services Ltd

INDIA

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