













Market Transformation through Domestic Efficient Lighting Program (UJALA) in India

Energy Efficiency Services Ltd.

Ministry of Power, Govt. of India

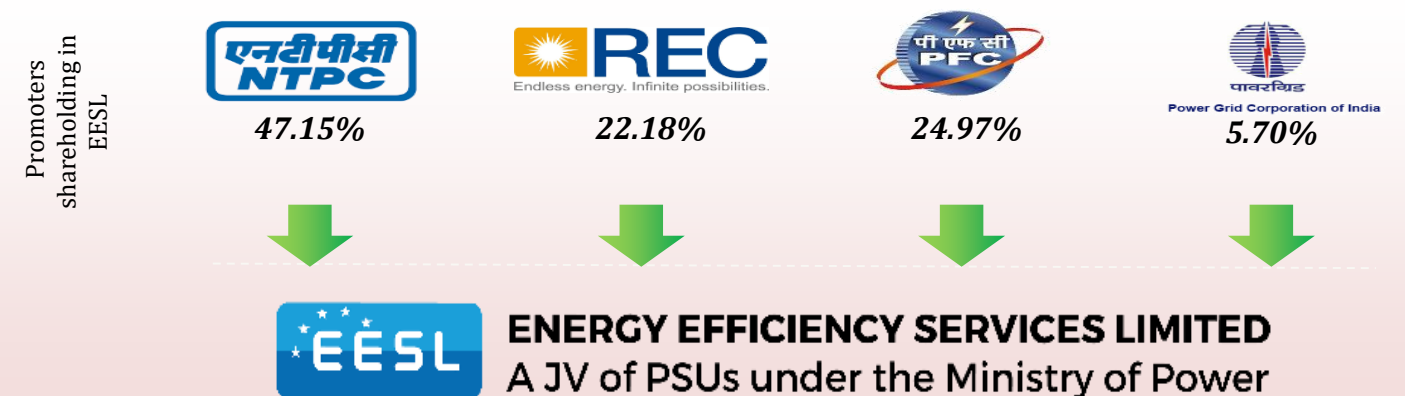
EESL: One of the largest SUPER ESCOs in the World - Driving Energy Efficiency Solutions in India and Globally

Company overview

-  Founded in 2009, under National Mission on Enhanced Efficiency (NMEEE)
-  Joint venture of four Public Sector Enterprise of Ministry of Power, GoI
-  Equity Paid up capital – INR **983.33** Crore *
-  Current employee strength - **955**
-  Total number of active schemes - **14**
-  No. of Urban Local Bodies (ULBs) touched across States - **1,500+**
-  International presence/ operations - **8 countries**
-  Estimated Energy Savings from EESL's interventions – **54 billion kWh** per year with Avoided peak demand of **10,740 MW**
-  Estimated Carbon Foot print reduction - 44 million t of CO₂ per year
-  Estimated Monitory Savings of INR 20,000 Crore

* Till September '19

EESL is promoted by 2 Navratana and 2 Maharatna PSEs



Global financial institutions supporting growth

Total line of credit sanctioned~\$ 1,062 million





EESL's Journey

EESL's Birth

Established an entity of Ministry of Power, Govt. of India under **National Mission on Enhanced Efficiency (NMEEE)**



Global Footprint

EESL acquires Edina, the UK Company to spearhead Tri-Generation Business

Launches Annual International event **INSPIRE**



Aspiring More

Ambitious plan to transform the market in Energy Efficiency and Clean Energy area - \$1.5 billion revenue turnover by 2022

2009

2015

2017

2019

2020



First Project

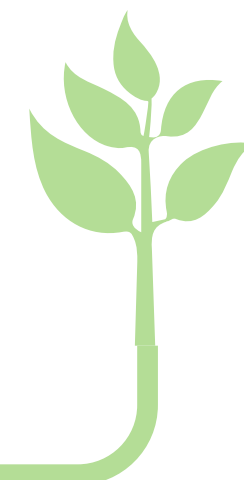
Hon'ble PM of India launches the LED National Program – UJALA and SLNP – 1st Projects start at Puducherry and Vizag



Touching 10 million SL

EESL reaches 10 million LED street lights installed in over 1500 Urban Local Bodies

SPVs in Smart Meter and Tri-Generation Business





Energy Efficiency Business has resulted Electricity saving of over **45** billion kWh per annum

360 million
LED Bulbs
UJALA

7.2 million
LED Tube Lights
UJALA

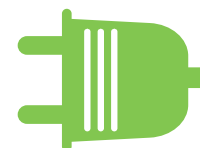
2.3 million
EE Fans
UJALA

10.4 million
LED Street Lights
Street Light National Program

10400+
Buildings
Building EE Program

74700
EE Agri-Pumps
Ag-DSM Program

1 million
Smart Meters
Smart Meter National Program



Enabling More



Clean Energy Business for Sustainability and enhancing Social Value

150,000

Solar LED Street Lights

Atal Jyoti Yojana (AJAY)

6.3 million

Solar Study Lamps

SoUL Program

80 MWp

Decentralized Solar

Solar Program

1510

E-Cars

National e-mobility Program

470+

AC & DC Captive Chargers

National e-mobility Program

66

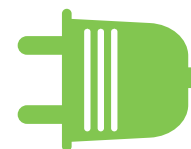
Public Charging Stations

National e-mobility Program

1 MW

Tri-Generation

40 MW in Pipeline



Enabling More



Value Proposition

More Efficiency | More Innovations | More Savings | More Productivity



Project Management for complete project period – repair & maintenance



Transparent operations, outcomes in Public Domain

EESL follows the Public Procurement Guidelines to procure Goods & Services – Bulk Procurement Approach followed.



EESL takes full responsibility to design, install and commissioning of the project



Feasibility Studies, Energy Audits, Diagnostic Studies to understand the energy saving potential and the business model



Mobilize investment to implement the project on ESCO model – **Pay-as-You-Save (Pays) Model**





Prime Minister of India launches UJALA Program in January 2015

U J A L A

Domestic Efficient Lighting Program



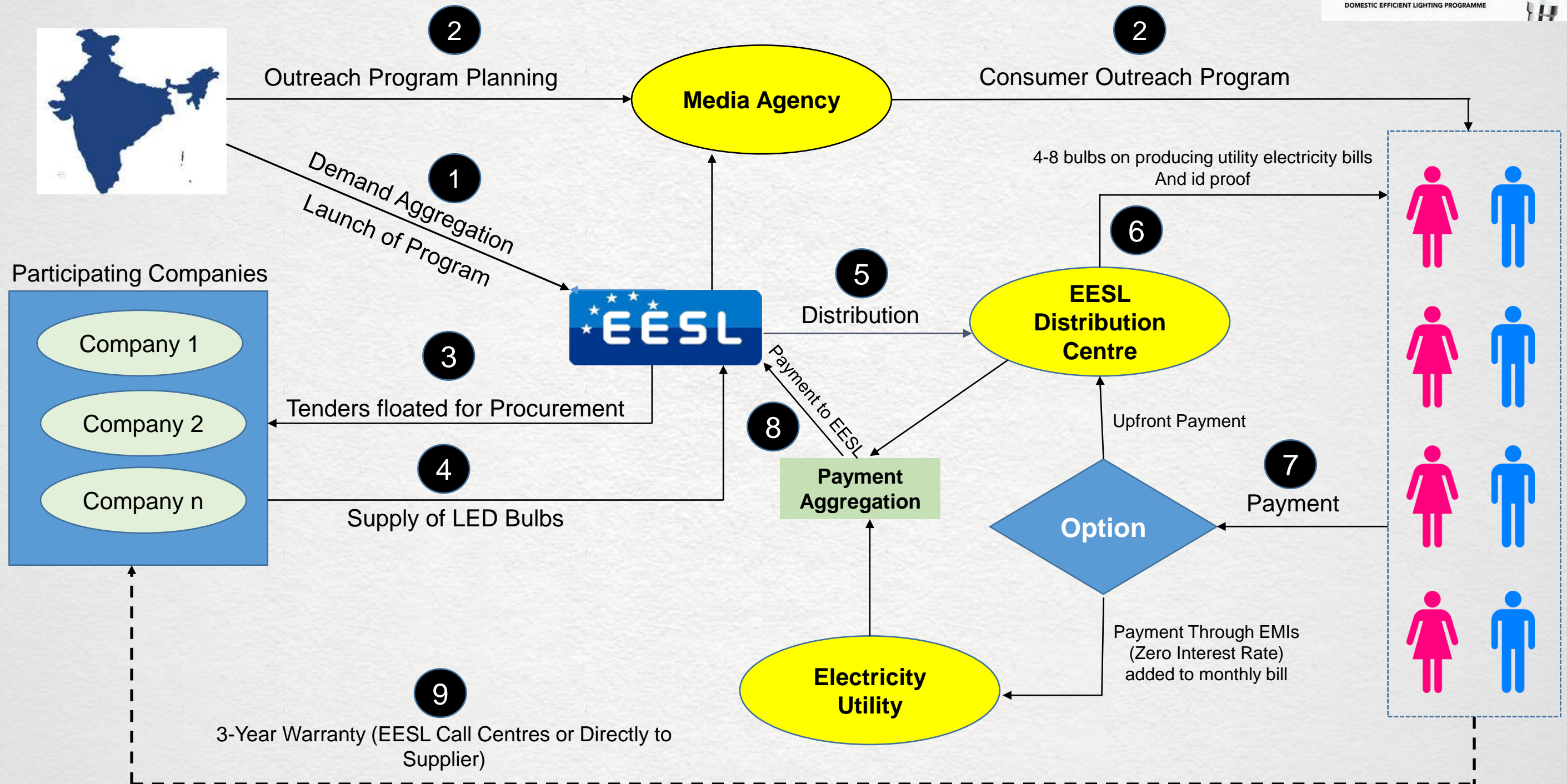
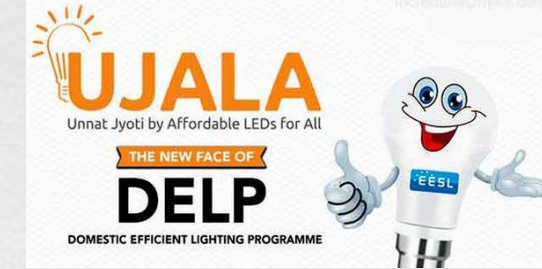
World's Largest Non-Subsidy Based Energy Saving Program

Achievements

- **360+** million LED Bulbs distributed
- Electricity Saving of **47590** Million Units per annum
- Annual Saving of **US\$ 2700** million
- Avoided Peak Demand of **9,528** MW
- Annual CO₂ emission reduction **35.5** Million tons

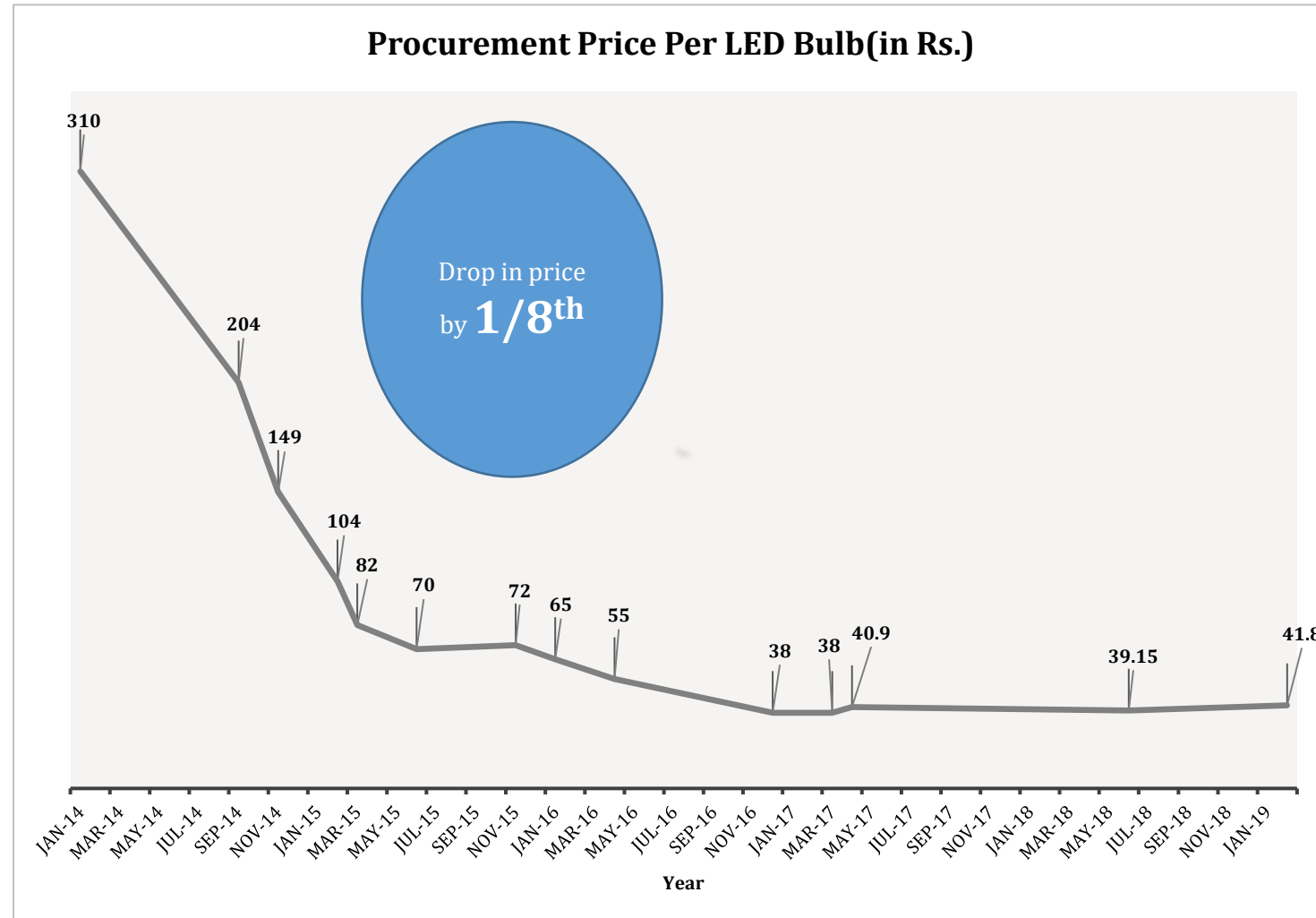


Operating Model of UJALA

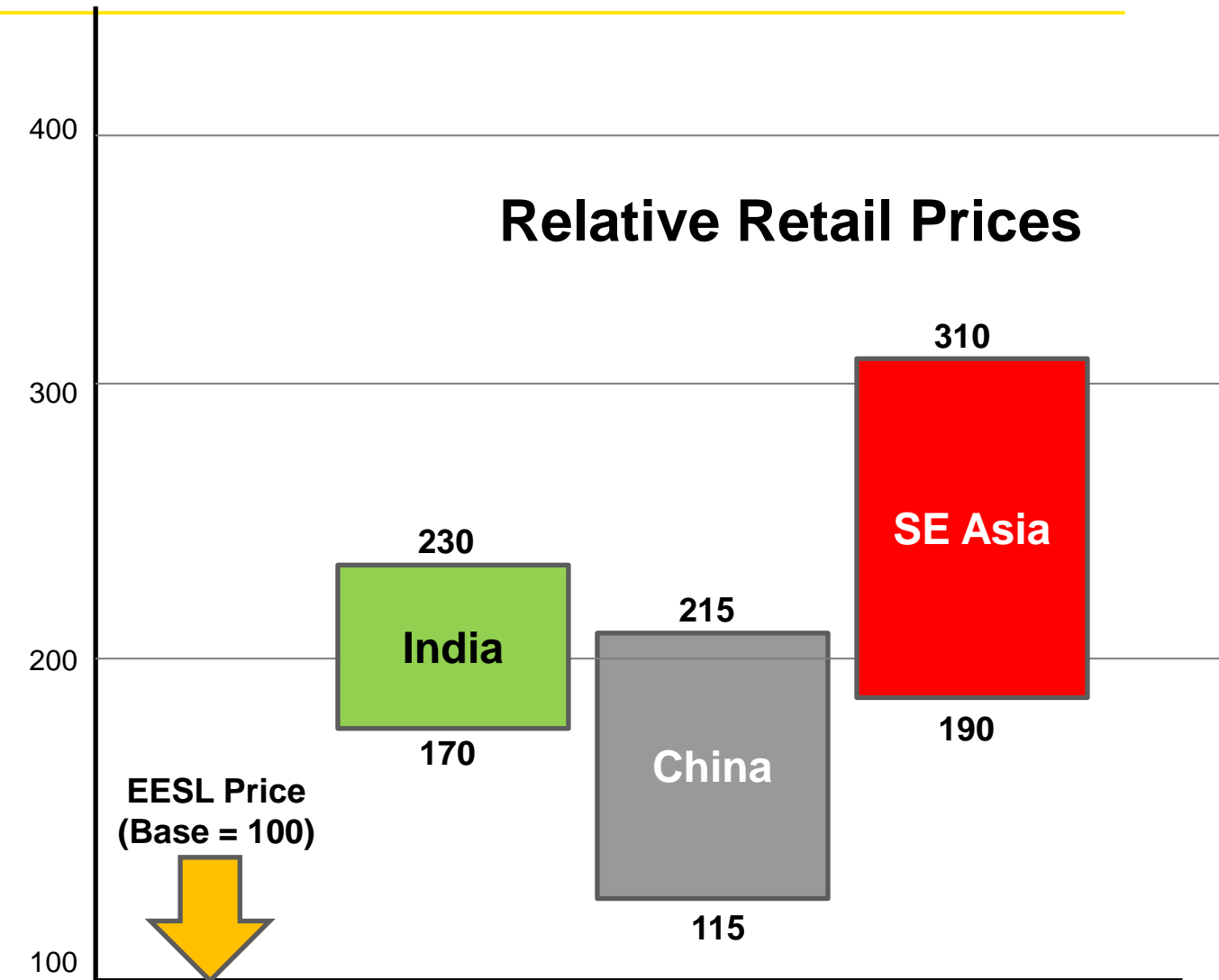




UJALA : Huge Cost Reduction with Same Quality Product !!!



► Investment done : \$ 300 mn



EESL's price is much lower than the Retail Price in SE Asian Region

Impact of UJALA



Price

1/8th
Reduced

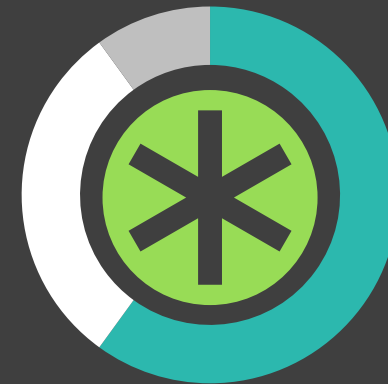
Due to Bulk-
Procurement through
Demand Aggregation



Agencies

300+
Deployed

Across the Country for
distribution, On-Bill-
Financing Model
through DISCOMs,
Other distribution
channels like Post-
Offices, Petrol Pumps



Manufacturing

30000+ times
Increased

Domestic
manufacturing
increased from 10,000
to 30 million per month



Revenue

INR 2918 Cr
Earned

In last 6 financial years.

NATIONAL UJALA DASHBOARD



Total LEDs distributed as on 05 OCT 2020 01:45

36,64,55,382



47,590 mn kWh

Energy saved per year



INR 19,036 Cr

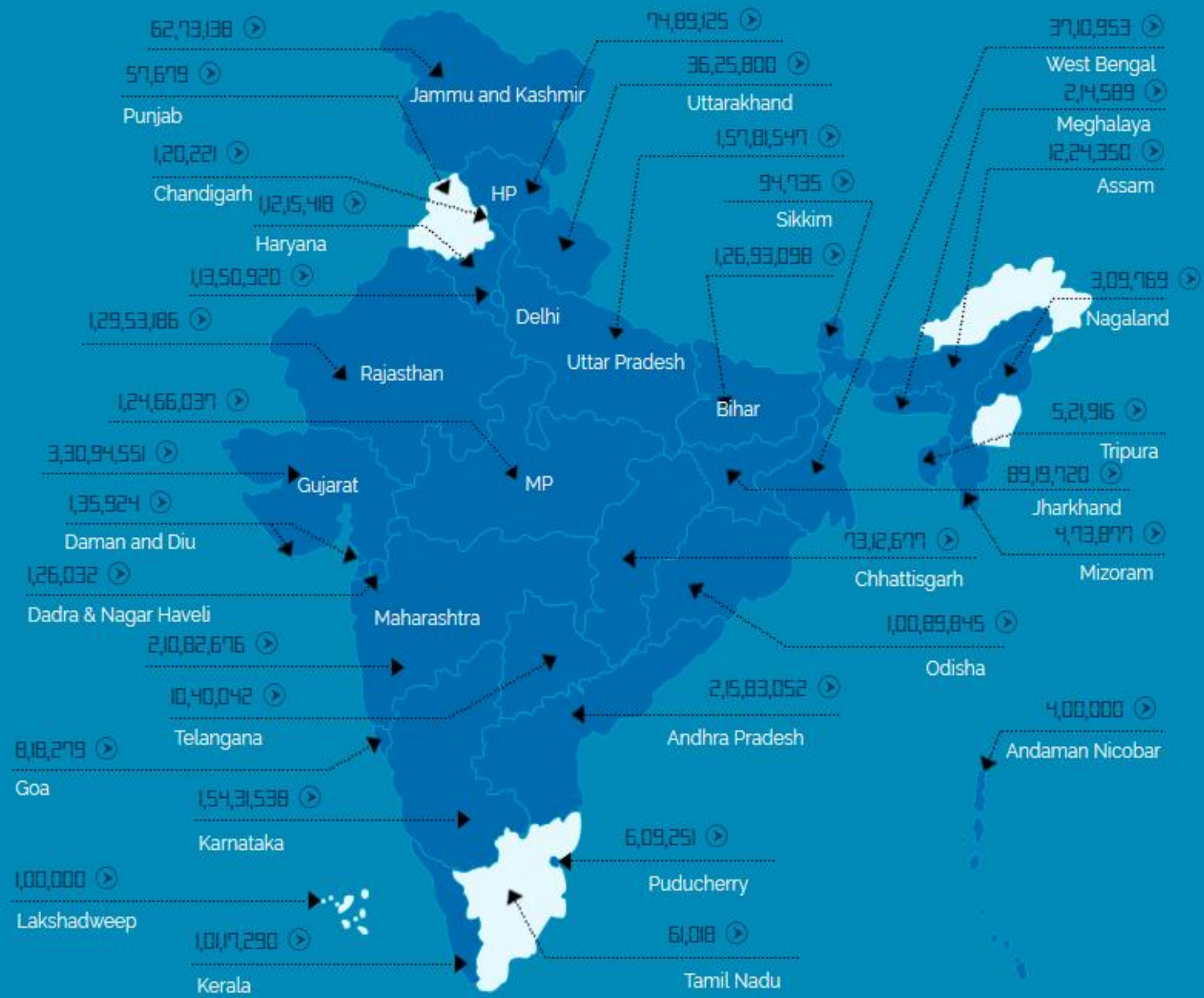
Cost saving per year



9,528 MW

Avoided Peak Demand

3,85,48,273 t CO₂CO₂ Reduction per year



Gol mandated EESL to Implement BEEP

LED Lights Installation

2 Million

Investment

INR 350 Crores / \$ 50 Million

Estimated Energy Saving

360 Million kWh per annum

Estimated CO2 Reduction

184000 Tons per annum

Payback Period

About 24 months



F.No. 25(24)/E.Coord/2017
Ministry of Finance
Department of Expenditure
(E.Coord)
North Block, New Delhi
Dated: 4th August, 2017

OFFICE MEMORANDUM

Subject: Economy Measures - Mandatory installation of LED based lighting in all Government buildings - regarding

The Hon'ble Prime Minister on 5th January 2015 launched the National LED programme to facilitate rapid adoption of LED based home and street lighting across the country. The programme components, Unnat Jyoti by Affordable LEDs for All (UJALA) and Street Lighting National Programme (SNLP) are under implementation in 34 States and UTs. This programme along with Building Energy Efficiency Programme (BEEP) is being implemented by Energy Efficiency Services Limited (EESL), a joint venture company of four power sector Central PSUs. EESL works on Energy Services Company (ESCO) model wherein upfront investment is done by EESL and the investment is recouped on annuity basis with performance based guaranteed energy saving during the project period.

2. Pursuant to the above the Central Government has taken a decision for mandatory installation of LED based lighting and energy efficient equipments (Fans & ACs) in all Government buildings.

3. Government buildings is a major source of energy consumption. Usage of LED based lightings and energy efficient equipments in Government buildings will lead to economy in expenditure and savings in the long run through reduction in energy consumed.

4. Keeping in view the economy in expenditure and savings that will entail, all Ministries/Departments are requested to convert the existing lightings/equipments into LED based lightings and energy efficient equipments on priority utilizing the services of CPWD/EESL.

5. The model Agreement/Contract to be entered in to between the Client Ministry/Department and EESL is enclosed for reference. The Client Ministry/Department and EESL on mutual agreement can modify/amend the provisions of the model Agreement/Contract to suit their specific requirements.

6. In respect of those Government buildings maintained by CPWD but where the electricity bill is borne/paid by the respective Ministries/Departments, CPWD (as third party) will countersign the agreement to provide comfort to the Ministry/Department as well as extending help for implementing the contract.

7. Action taken in this regard be reported to Ministry of Power and Department of Expenditure by 15.08.2017 for monitoring purposes.

(H. Athali)
Director

To
All Secretaries of Ministries/Departments

Copy to

1. Cabinet Secretary, Government of India
2. Prime Ministers' Office, South Block
3. Managing Director, EESL, IWA1, A-13, Sector-1, Noida.

Letter from MoF

अजय भल्ला
सचिव
भारत सरकार
AJAY BHALLA
Secretary
Government of India

विद्युत मंत्रालय
अनुराग शक्ति भवन
नई दिल्ली-110001
Toll : 23710271/23711316
Fax : 23721487
E-mail : sacy-power@nic.in

Ministry of Power
Shri Ashok Lavasa
New Delhi - 110001

D.O.No. 9/6/2017-EC
Dated the 2nd August, 2017

Dear Sir,

As you may be aware, lighting accounts for about 20% of total electricity consumption in India. Use of LEDs in domestic and public lighting could result in 50-90% reduction in energy consumed by lighting. The National LED Programme was launched on 5th January, 2017 by the Hon'ble Prime Minister of India, to facilitate rapid adoption of LED based home and street lighting across the country. This programme along with Building Energy Efficiency Programme (BEEP) is being implemented by Energy Efficiency Services Limited (EESL), a joint venture company of four power sector Central PSUs.

2. EESL qualifies as a "deemed Government Company" within the meaning of section 619B of the Companies Act, 1956 [equivalent sections 139(5) and 139(7) of the new Companies Act, 2013 as per clarification dated 31 July 2014 of the Ministry of Corporate Affairs, GoI (extracts at Annexure-I)]. Further, EESL is subject to oversight of the Central Vigilance Commission, Government of India under CVC mechanism. The MD of EESL is appointed by a committee chaired by Secretary, Ministry of Power, Government of India and Ministry of Power and Bureau of Energy Efficiency (BEE) are represented in EESL's Board of Directors.

3. EESL follows a business model of demand aggregation for price optimization and passes the price benefit to end consumers. EESL works on ESCO model where upfront investment is done by EESL and which is recouped on annuity basis with performance based guaranteed energy saving during a project period.

4. I would like to mention here that way back in August, 2014, the then Secretary (Power) had written to the then Secretary, Department of Expenditure, GoI, requesting to issue necessary directive to all Ministries/Departments of the Government of India to procure only LED bulbs in place of CFL and JCL for future lighting (Annexure-II). In view of the emphasis of the Government of India for early conversion of all Buildings to Energy Efficient ones and the above credentials of EESL, I request you to kindly consider issuing

...contd...

-2-

suitable directions/guidelines to enabling Central Government procuring entities across the country to procure services from EESL for Building Energy Efficiency Programme. In this connection, a copy of the Model agreement between CPWD and EESL for Implementation of Energy Efficiency Measures on deemed energy savings based ESCO model with 100% financing by EESL is also enclosed (Annexure-III).

With regards,
Yours sincerely
(A.K. Bhalla)

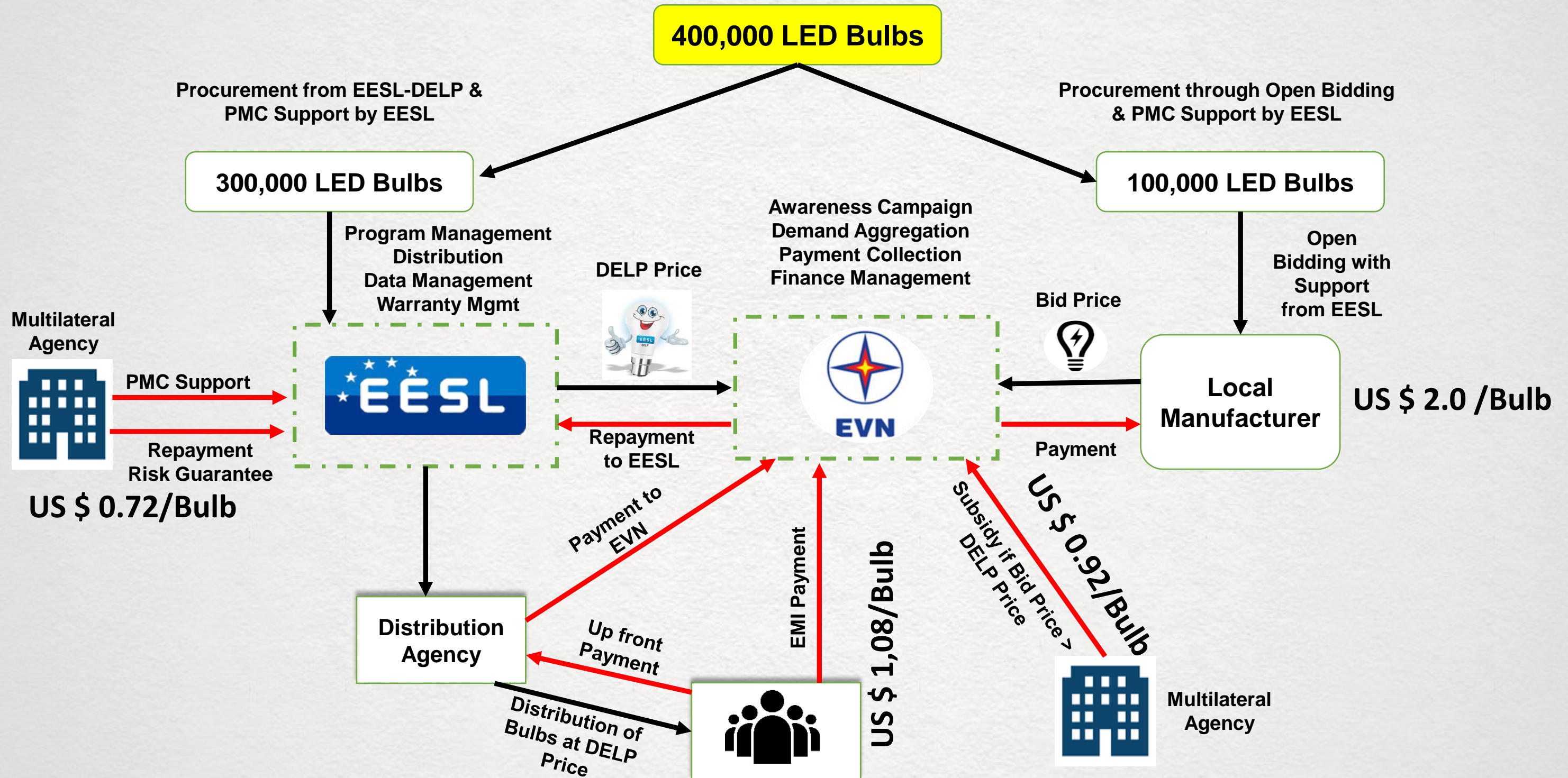
Shri Ashok Lavasa,
Finance Secretary & Secretary (Expenditure),
Ministry of Finance,
North Block,
New Delhi

Copy to MD, EESL with request to follow up with
JS (Exp), Deptt. of Expenditure

Letter from MoP

Simple Intervention Big Gains

Pilot Programme of (300,000 + 100,000 LED bulbs) in a Mixed Model



DELP in Vietnam : Pilot of 300,000 LED Bulbs Distribution

1 Province

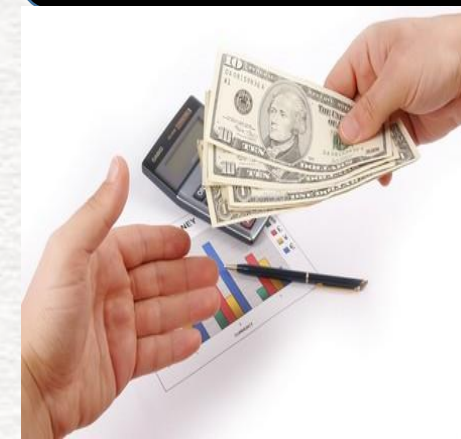
- ✓ Good Visibility
- ✓ Ease of Implementation
- ✓ Political Importance
- ✓ Good Infrastructure

2 Awareness Campaign



- ✓ Electricity Bills
- ✓ Print/Electronic Media
- ✓ Pamphlets
- ✓ Appeal by Prominent Person

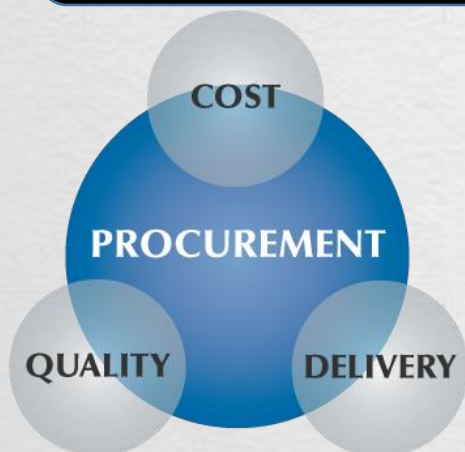
5 Payment



- ✓ Upfront Payment
- ✓ 5 to 6 EMI's added to Electricity Bills

3 Procurement

- ✓ Direct Purchase from Retail Market
- ✓ Domestic Bidding
- ✓ Supply from DELP of EESL



4 Distribution



- ✓ KIOSKS by EVN PCs
- ✓ Private Distributors

6 Warranty

- ✓ 3 Years Warranty
- ✓ EVN's Complain Management System



Thank You



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