Energy Efficiency Services Limited, India

TRACK – A

ESCO Market Development in South Africa

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EESL Super ESCO – Scaling Up Energy Efficiency in India

Best Practices and Innovative Business Model : EESL's Experience

By

Amit Kumar Bharadwaj

Head – Corporate Planning, EESL

About EESL

Energy Efficiency Services Limited (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)
- **Rural Electrification Corporation Limited** (Leading Infrastructure Finance Company)
- **Power Finance Corporation Limited** (Leading Non-Banking Financial Corporation)
- **Power Grid Corporation of India Limited** (India's Largest Power Transmission Company)

- **Established in the year 2009**
- **A Super ESCO that seeks to unlock energy efficiency market in India, estimated to be at 12 billion US $, by way of innovative business and implementation models**
- **We firmly believe the best way to tackle today's problems of energy shortfall and climate change is by enabling every individual and business with the power and opportunity of managing all their energy needs efficiently and affordably**
- **We are one of the fastest growing companies in India - 10x growth in 1 yr**

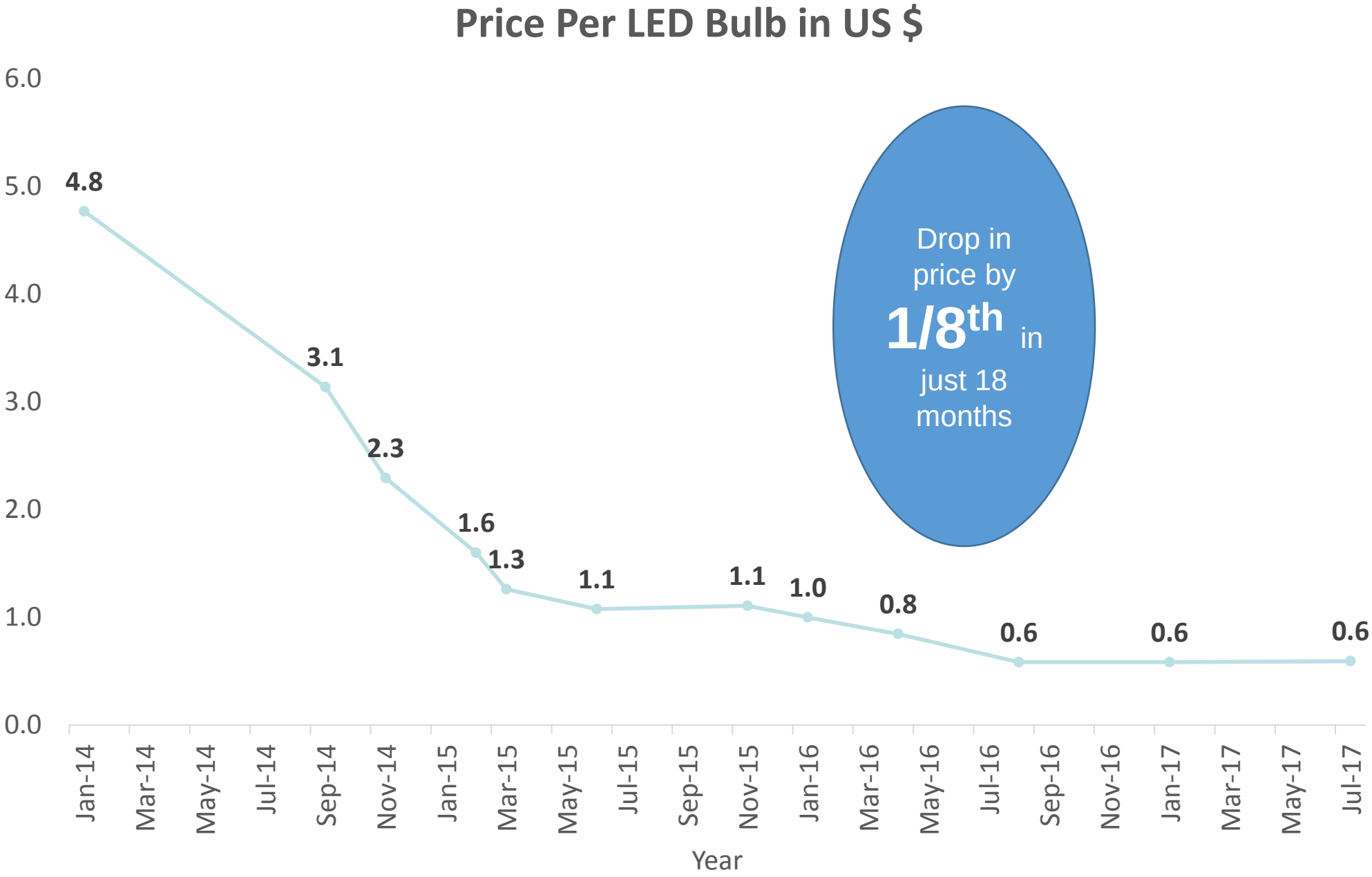
Business Models of the Emerging World

- **Business Models** in the emerging world need to be **innovative, scalable, embrace technology, learn to survive without public funds, incentivise all stakeholders** and **deliver outcomes** in a **time bound** manner
- The **Business case** has to be **simple and easy to comprehend** by all
- **Transaction cost** of **joining is low** – easy to aggregate demand
- **Value for money** for all stakeholders is essential
- **Standardization** of technology and services to achieve scale
- **Turnkey implementation** - to seamlessly integrate all the elements

EESL – Realising the Vision of the New World

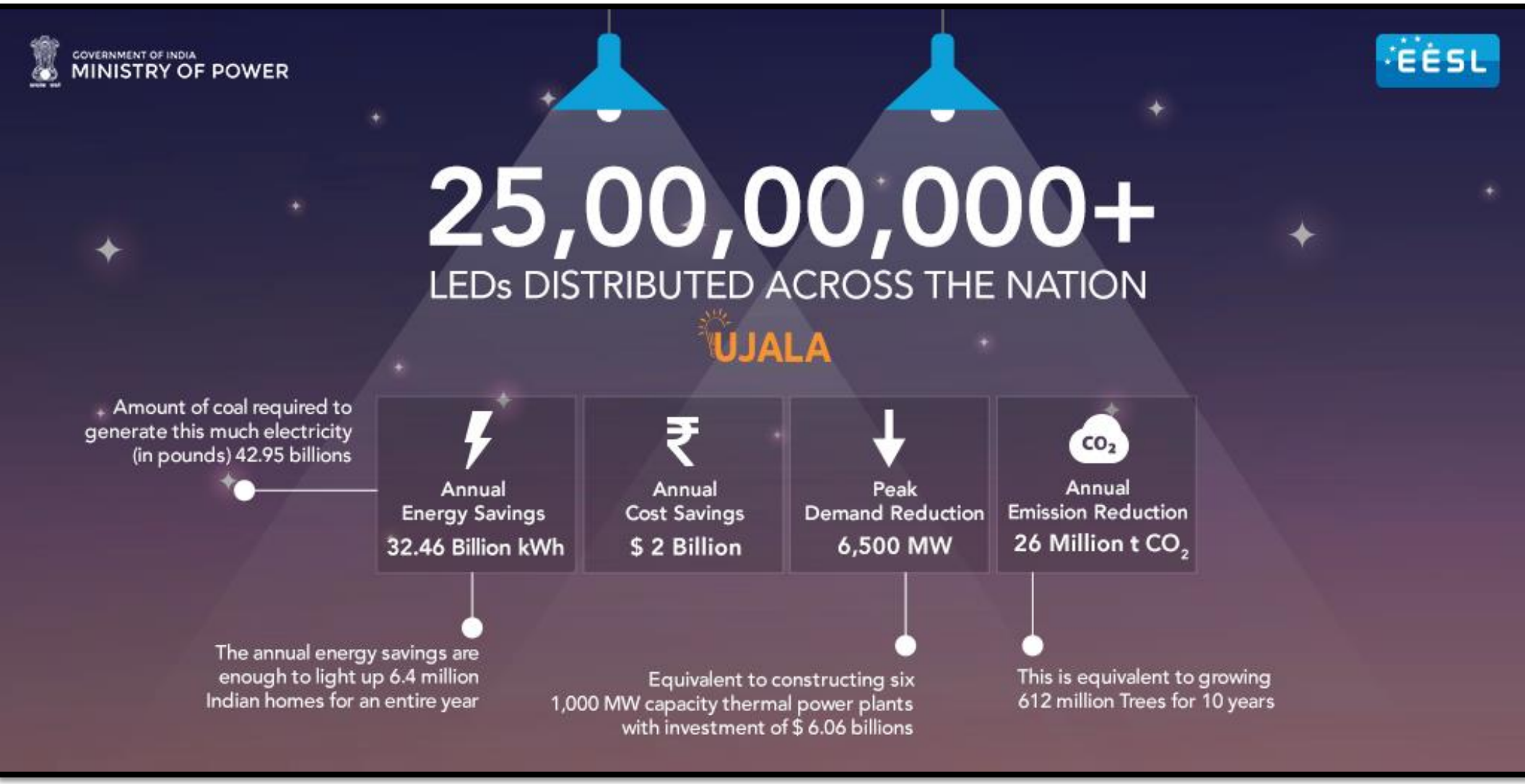
- Pay As You Save (**PAYS**) business model
- **No upfront investment- Re-payment** *from* **savings – performance guaranteed** *and* **failures warrantied**
- **Barriers** of **high first cost** *and* **comparative end use** overcome
- **Flexible business model** in terms of performance period and accountability
- **Encouraging** all sections of the **value chain** including **social**, **economic** and **environment**
- **Aggregate demand by** including **incentives** for all stakeholders
- Putting out **large procurements** to **leverage economies of scale**

Demand Aggregation – Economies of Scale



Prime Minister of India launched the scheme for LED bulb distribution

250 million LED Bulbs distributed within 28 months



Other Benefits include:-

- Direct and Indirect Employment to over 35,000 people
- Encouraged Make in India initiative and therefore domestic manufacturing got the boost

EESL - Outcomes

- **UJALA** – LED bulb programme – over 277 m LED bulbs distributed by EESL in last 33 months – private sector sold 450 m in the same time – **market transformation in 2.5 years – LEDs most preferred lighting source**
- **Fans/ LED Tubes** – Started in 2016 – 1.4 million fans and 3.2 million LED tube lights distributed
- **Street Lights** – About 3.7 m street lights replaced benefitting over 350 ULBs
- **Ag DSM** – Agreement to replace 1.1 million agriculture pumps signed
- **Solar Agriculture Pumps** – Pilot project for 20,000 solar agriculture pumps initiated
- **Municipal Water/ Sewage Pumps** – over 150 cities energy audit work started
- **Buildings –** Agreements with large government facility owners signed – more than 6000 buildings aggregated
- **Super Efficient AC** – Programme initiated – target buildings, institutions and B2B markets – orders placed for 100,000 Acs
- **E-Mobility –** Procurement of 10,000 e-vehicles started
- **Smart Meters**- Procurement of 5 million smart meters under process

To Summarize – Challenges & Learnings

Challenges	Strategy to overcome
Lack of capacity and understanding about EE	Development of a product and business case that is simple and easy to understand - UJALA
Monitoring and Verification	Demonstrated and deemed savings approach with stress on service delivery – Street Light
Lack of awareness	Strong awareness campaigns with stress on individual savings; action oriented campaigns '**ILEDTHEWAY**', disseminating best practices and Mobile apps (UJALA/ SL)
Project structuring and financing	Risk mitigation by deemed savings. Developed annuity model linked to Service Level Agreement (SLAs) and not just energy savings
Inadequate capacity of service providers/ manufacturers	Regular engagement with manufacturers/ service providers with advance information of project requirements such as training and capacity building
Lack of political capital	Inauguration/ launch by high level political dignitaries

Thank You

For more information contact

abharadwaj@eesl.co.in
+91-7208407751
www.eesl.co.in