



# WORLD BANK CLIMATE AND CARBON FINANCE UNIT CARBON PARTNERSHIP FACILITY 2015 ANNUAL MEETING

## INDIA ENERGY EFFICIENCY PROGRAM

# Overview of presentation

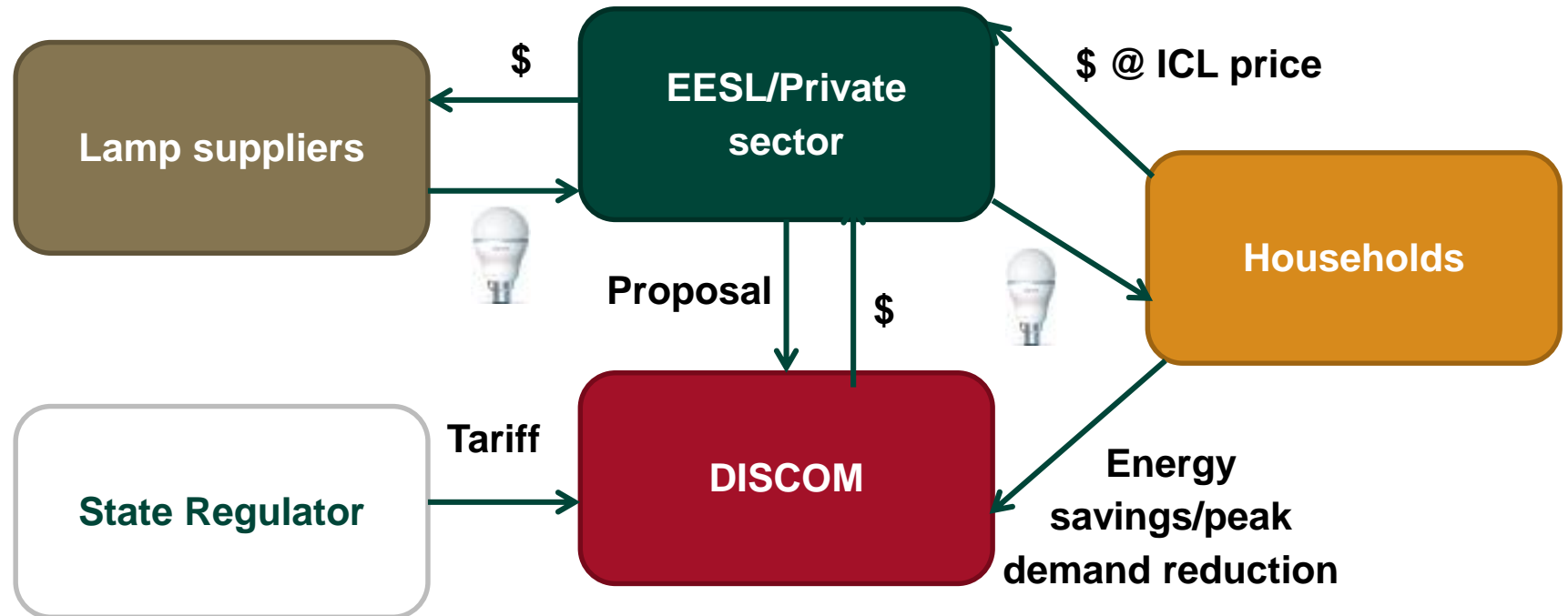
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- Current context
- Program overview
- Implementation arrangements
- Role of carbon finance
- Key NMM features and size
- Achievements to date and recent developments
- Next steps and timetable

- India has a power deficit of 6% (2014); planned and unplanned outages are very common.
- Households consume about 28% of total energy and lighting takes about 30% of it.
- National Mission on Enhanced Energy Efficiency (NMEEE), one out of 8 missions of the National Action Plan on Climate Change , designed to promote energy efficiency with targets on savings.
- Established Energy Efficiency Services Limited (EESL) in 2009/10 to implement the market based mechanism aspects of NMEEE.
- EESL designed Demand Side Management Efficient Lighting Program (DELP) based on lessons learned from India BLY (CFL replacement) program and private sector ESCO experience in the country.

- **Objective:** Replace domestic household incandescent and CFL lamps
- **Technologies identified:** LED following national standard
- **Stakeholders:** Households, EESL, state DISCOMs, state regulator and suppliers
- **Overall design:** De-risked ESCO type model. EESL enters into an agreement with a DISCOM to distribute the LEDs to households in exchange for same number of ICLs and CFLs
- **Financial aspects:** DISCOMs repay the implementer (EESL at present) in installments to ensure an adequate return based on the saved electricity at a specified tariff approved by the state regulator and for the required period of time
- **Private sector participation:** Nil at present (though Philips led consortium has put 50% equity in one state)
  - Higher payback period
  - Risky warranty requirements
- **Institutional capacity:** Very good (EESL)

# Implementation arrangement



- To *reduce* the payback period on projects at a state level in order to attract the private sector including ESCOs to implement the Program; and
- To *increase* DISCOMs participation in the Program as scaling up will also reduce the costs of LED lamps and therefore the funding which DISCOMs need to provide.

# Key NMM features and size

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- **Crediting Approach includes:**
  - **Dynamic Baseline:** Create a dynamic lighting baseline to incentivize replacement of the increasing share of CFLs in households
  - **Setting intermediate performance targets (IPTs)** to monitor and support lamp replacement
  - **Establishing the approach to determining “own effort”** and ensuring a net decrease in emissions
  - **Tradable credits:** Credits generated above the baseline minus a discounted percentage for own effort
  
- **Size:** 51 million lamps are expected to be replaced in next 2-3 years - Could generate up to 6 million ERs by 2020/21 for purchase

- ◆ Program Note approved, then endorsed by CPF Buyer Participants in March 2015, with key design features of the NMM.
  - Agreed on 2 track approach (NMM + CDM crediting) to be followed with CPF Buyers to minimize any potential regulatory risks with NMM development.
  - CDM Executive Board working on proposals for reducing transaction costs for small scale projects like DELP under CDM - if proposals are approved and operationalized, this will enable the 2 track approach to be followed - clarity expected in December 2015.
  
- ◆ Program implementation on track
  - LED prices declining



- May/June 2015: India Country Team endorsement discussions underway
  
- Following Country Team endorsement:
  - Review LED pricing outlook
  - Sign MoU with EESL
  - First draft NMM note
  - Draft NMM Design Document
  - Sign Seller Participation Agreement