

EESL – Opportunities and Business Models for Implementing Energy Efficiency



Presentation to SG-3

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Venue: New Delhi

EE Business Potential

Sector	Consumption (billion KWh) (2011-12)	Saving Potential (billion KWh)	Investment (b USD)	Remarks
Municipal Street Light	8.5	5	6	33 million street light points
Municipal Water Pumping	4.7	1.2	1.18	
Agriculture	131.4	39.4	5	20 m agricultural pump sets
Buildings	69.6	13.9	0.2	Commercial Buildings
Industry	347.7	104.3	6	For large and small industries
Total	561.9	163.8	18.3	

EESL Business - Objectives

- **Create market access in public and private facilities – handholding, information dissemination, capacity building**
- **Develop projects for various sectors addressing specific barriers and challenges**
- **Design risk mitigation measures to address technical, financial and regulatory risks**
- **Provide and secure funding at reasonable rates for project implementation**
- **Develop model templates necessary for project implementation by including the above**
- **Disseminate best practices to stakeholders so that replication can occur**

EESL Business Plan

Year	Projected number of projects	Total Investment Cost (Million INR)	Total Investment Cost (Million euros)	EESL ESCO Equity participation (Million INR)	Loan from KfW (Million INR)	Loan from KfW (Million Euro)
Year 1 (Start-up phase)	13	246	4	50	196	3
Year 2	35	739	10	149	590	8
Year 3	47	1,006	14	203	804	11
Year 4	54	1,188	17	239	949	13
Year 5	58	1,292	18	260	1,032	15
Total after 5 years of project implementation	207	4,470	63	900	3,570	50

Issues and Challenges in EE Implementation

Baseline: Inadequate data availability and frequent changes in baseline during implementation

Billing: Wide variation in billed load & actual load - 30-50%

Conforming to Standard: Most times output not as per BIS standard.

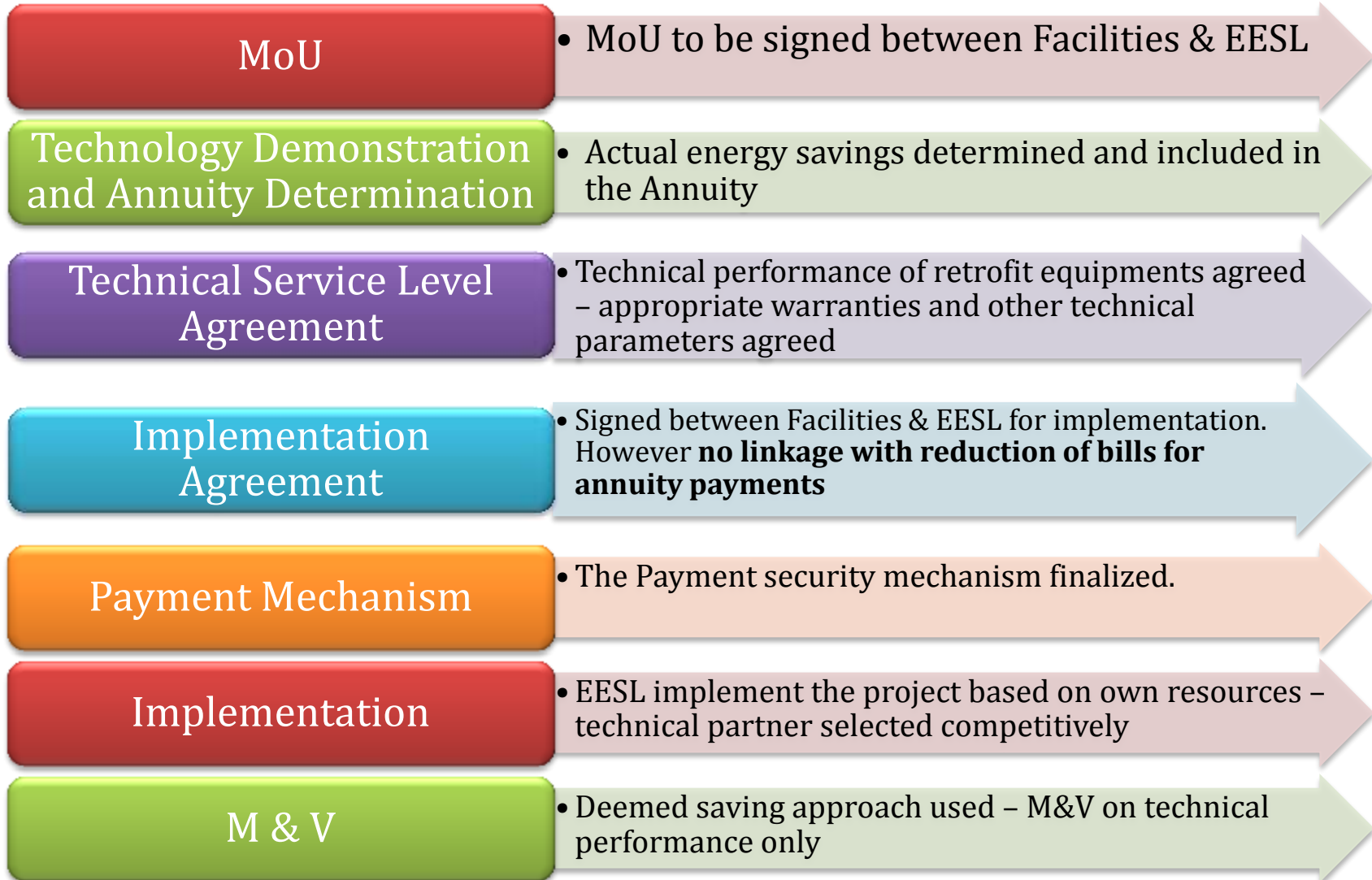
Operation conditions: Wide variation between baseline and actual operations

Payment Security: Absence of it increase cost of capital and viability

M&V: Detailed M&V plan and- **Payments linked to bill reduction** ensures non-implementation

Shared savings model with detailed M&V perhaps has resulted in market failure for EE – need for different business model

EESL Business Model – Annuity based Energy Service Performance Contract (AESPC)



EESL Work in Progress

Sector	No. of Projects	Total Investment (In Cr)	Estimated Energy Savings (MU)
AgDSM	3	213	335.7
Buildings	2	2.8	1.24
Mu DSM - Water Pumping Systems	4	67	59.57
Mu DSM - Streetlights	21	870	113.8
DELP	2	115	122.1
	32	1268	632.8

Final Thoughts for EE Implementation

- ✓ **Standardization** of RfP, contracts, AESPC, to reduce transaction costs – simplification of performance contracts to suit Indian requirements
- ✓ Agreement on **payment security measures** that need to be incorporated – particularly for public facilities
- ✓ Linking payments to agreed **technical specifications** and **service level performance** - **Delinking costs savings from return on investments** – simple and functional M&V
- ✓ **Annuity based approach** to reduce financial risks for ESCOs and financial institutions



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