10th GRIHA SUMMIT
SESSION: BUILDING ENERGY EFFICIENCY FINANCING MODELS

December 13, New Delhi
BUILDING ENERGY EFFICIENCY FINANCING MODELS
PREFERENTIAL LOANS
Direct financial assistance for building owners borrowing capital for investing in energy efficiency

- Additional borrowing capacity
- Concessional lending interest rates

Typically available both as finance or re-finance option

Government and private sector collaborate to build capital and reduce risk

KfW-NHB programs in India and PowerSaver program in US
FINANCING THROUGH TAXES
Model 1: Building owners receive tax incentives for investing in energy efficient building technologies
   Capital for investment to be arranged by owner

Model 2: Government or municipalities secures funding for owners through private capital
Banks provide 100% finance to buildings in tax districts

State or city authorities create districts or areas where owners can receive finance for EE

ESCO identifies cost effective EE solutions and requests funding from city/state authorities

US Property Assessed Clean Energy (PACE) Program
ESCOs can be public or private sector companies

Mobilize finance and technical resources for achieving energy cost reductions at minimal to zero upfront cost for building owners

Energy Savings Performance Contracting (EPSC) or Energy Performance Contract (EPC):
- ESCO compensation linked to performance of implemented energy efficiency solutions
- ESCOs offer guaranteed cost savings to owners. Savings after ESCO cost recovery accrues to the owner.

ESCO MODEL
EESL’s Building Energy Efficiency Program (BEEP) is the flagship program to undertake large scale appliance replacement in existing buildings.

EESL offers 100% financing on upfront cost of energy efficient retrofits to building owners at pre-approved interest rates.

EESL supplies lighting and cooling appliances at discounted prices and maintains them for a period of five years.

Cost recovered over a five year period from electricity cost savings realized from retrofits.

EESL is the first SUPER ESCO in India.
IMPACT: BEEP

**EE BUILDINGS**
- Completed: 9,445
- Ongoing Buildings: 2,300

**ENERGY SAVINGS**
- Energy Savings: 90 MN kWh
- Avoided Peak Demand: 30 MW

**MONETARY BENEFITS**
- Investment Mobilized: 110 MN USD
- Cost Savings: 11.2 MN USD

**EE BUILDINGS**
- Energy Savings
- Monetary Benefits
BULK TECHNOLOGY PROCUREMENT
Technology procurement programs are a tested strategy for governments and large private sector organizations for inducing manufacturers to provide advanced, energy efficient building technologies at competitive prices.
Energy Efficiency Services Limited with USAID’s technical assistance started the program.

- Introduced the first super-efficient AC in India: 30% more efficient than other ACs.
- 100,000 ACs procured through a competitive tender.
- 79 million USD investment mobilized.
- Market creation: New, competing super efficient ACs introduced by other companies at lower cost.

Super-efficient Air conditioner Program is the first bulk procurement program for ACs in India.
5.2 ISEER EFFICIENCY

GREEN REFERIGERANT

R-290

100% from EESL FINANCING

Ownership cost

Product cost

USD

EESL AC

5 Star Inverter Split

3 Star Inverter Split

5 Star Non Inverter Split

3 Star Non Inverter Split

No Star AC
MAITREE
MARKET INTEGRATION AND TRANSFORMATION FOR ENERGY EFFICIENCY
1

Energy Efficiency in Buildings

- Supporting Energy Conservation Building Code (ECBC) implementation
- Moving towards a super-efficient and net-zero target for new buildings
- Large-scale energy efficiency upgrades of existing buildings
Program design and implementation support for low-energy comfort systems

Supporting large-scale deployment of super-efficient cooling technologies
3
Training & Consumer Engagement

- Skill development for building sector professionals
- Capacity building for EE design, construction and operation
- Consumer outreach for EE behavior modification
Thank You

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