Energy Efficiency Practices - Approach Analysis

Experience from
Bachat Lamp Yojana

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pCDM Approach

Clean Development Mechanism provides for the development of Programme of activities.

The programme itself does not achieve the reductions, but provides the framework for emission reductions to occur through certified project activities.
Bachat Lamp Yojana

Using pCDM approach to finance and hasten….. ..Market transformation for energy efficient lighting

- 400 million light-points in India
- Estimated BLY projects: 400+
• **Jurisdiction:** India
• **Year:** 2007
• **Obligated Parties:** BEE, Utility, Investor
• **Driver & Purpose:** Using CDM to finance..... Market transformation
• **Objective**—400 million light-points in India to be replaced
• Estimated BLY projects : 400+
BLY Chronology: Slow and Steady

28th May 2007– Announcement in chief ministers meeting chaired by Prime Minister

12th February 2009– Pilot project registered

25th February 2009– Power Minister launches Bachat Lamp Yojana (BLY)

April-June 2009– BLY revised as per deemed savings M&V

May 2010– Expected BLY PoA registration

March 2010– BLY completes UNFCCC completeness check

July 2009– BLY enters validation
Provides access to the households for installing CFLs

Each BLY project ~ 600,000 CFLs, upto 4 CFLs per household

400 million ICLs replaceable,

Pay Rs 15 for new CFL

CFL = Compact Florescent Lamp
ICL = Incandescent lamps
BEE = Bureau of Energy Efficiency
DISCOM = Distribution Company
DNA = Designated National Authority
EB = Executive Board

PoA - Manager
Technically develops BLY scheme methodology and documents

PoA approval

DNA Annex I & II

CDM EB
Communication

Validation /
Verification
Simplified M&V: AMS IIJ

1. Deemed savings approach: 3.5 hours / day/ CFL
2. CFLs in use monitored using surveys

ES = Ex-ante survey
MS = Monitoring Survey

Total area serviced by DISCOM
Project area
Results

BLY PoA expected UNFCCC registration by May 2010,

Within 2 months of PoA registration, 42 CPAs:

- 4 CPAs in Uttarakhand
- 23 CPAs in Kerala
- 12 CPAs in Punjab
- 3 CPAs in Andhra Pradesh

Within 12-18 months of PoA registration

- Expected 400+ CPAs all across India,
Results

Savings per BLY project

- 400+ CPAs all across India, ~ 10 MW saving per CPA

- GHG reduction: 22,000 tCO$_{2e}$

Net avoided Capacity Savings

- ~4000 MW
Four Learning's for Developing

Energy Portfolio Standards
1. Choose Approach

- Top down
- Bottom Up

Tip: The choice of approach is dependent on at what level the resources are available for design and implementation.

- Whatever the approach; always ensure the last mile connect.
- Minimize transaction costs
2. Design Monitoring & Verification using
   - Simple Deemed methodologies
   - Pre-defined sampling plans

Tip: The investors prefer pre-defined acceptable methods to control project risk to ensure predictability of returns.

   - Show the carrot, allow to smell the carrot and sure enough the horses would run.
3. Define contracts covering

- Roles and responsibilities
- Liability payment
- Savings / Certificates allocation
- Project financial assignment

Tip: When the rubber meets the road, erasers will not do, one needs to mould tyres.

- You may know the scheme design by heart, but to define contracts bring in the professionals viz. lawyers
4. Perform Stakeholder Consultation

- Provides 360° due diligence
- Builds transparency of decision making
- Ensures buy-in

Tip: Once the design is freezeed and approved, avoid unilaterally tinkering with the design or interpreting methods of implementation

- This could have financial repercussions to the stakeholder
Summary of Learnings

1) Choose Approach

2) Design simple Monitoring & Verification

3) Define contracts

4) Perform Stakeholder Consultation
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