REPORT OF SUB GROUP-III SET UP TO REVIEW IMPLEMENTATION OF NEW AND RENEWABLE ENERGY SCHMES IN NE STATES

AIZAWL, 18-5-2007

CEL CENTRAL ELECTRONICS LIMITED

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10 kW$_p$ SPV Power Plant installed at village Moordungri in district Sawai Madhopur, Rajasthan


10/11/2004


CEL
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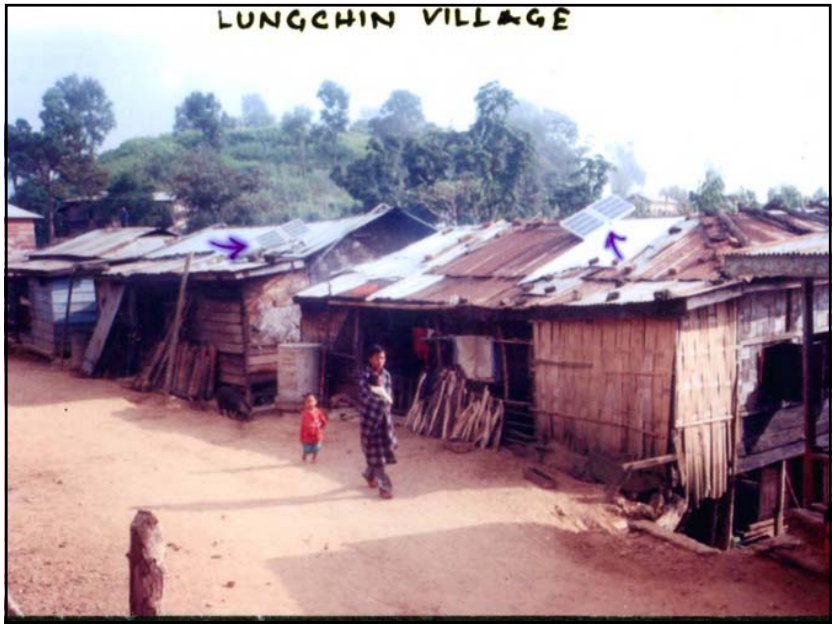
Biomass gasifier based village electrification project commissioned at Gosaba village in sunderbans, West Bengal.

A 20 kW Village Hydro Project in Arunachal Pradesh


LUNGCHIN VILLAGE


Solar Home Lighting System,Model-5 installed & commissioned at Athukthang Bari
(16/1/8/00013200)under Mandai RD Block West Tripura District


Solar Home Lighting System,Model-5 installed &
commissioned at Athukthang Bari (16/1/8/00013200)under
Mandai RD Block,West Tripura District


Solar Home Lighting System,Model-5 installed &
commissioned at Jamirleng Para (16/1/8/00013100)under
Mandai RD Block,West Tripura District

MAIN BARRIERS

- Inadequate support and commitment from the state governments.
- Inadequate institutional positioning.
- Difficulties in mobilizing matching funds.
- No funds for maintenance and upgradation.
- System designs not suitable for conditions.
- No institutional mechanism to absorb feedback.
- No local manufacturing/assembling facilities.

MAIN BARRIERS – CONTD.

- Low levels of CFA with inadequate normative costs.
- Lack of long term exploitation plans for small hydro and biomass.
- Inadequate evacuation facilities for power projects.
- Lack of motivation and incentives to the agency technical staff.
- Lack of awareness among the beneficiaries.
- Lack of identification of unelectrified remote habitations.
- No mechanism for upgradation and maintenance.

WHY RENEWABLE ENERGY?

- Energy Security
- Fossil fuel use is not sustainable
- Global Warming (the warmest years since 1866 occurred between 1980 & 2006, 2005 being the warmest ever).
- Remote communities can be supplied fossil fuel based energy only at heavy costs.
- In many cases renewables are economical.
- More employment generation for same energy use.

WHY DISTRIBUTED GENERATION USING RENEWABLE ENERGY?

- Renewables are locally available, particularly suitable for small capacities.
- Good for eco-sensitive regions.
- Synchronism between load and generation in many cases.
- Local employment and income generation.
- Ownership in local hands.

RELEVANCE OF RVE PROGRAMME OF THE MINISTRY

- Grid extension to many villages/hamlets is either technically not feasible or not cost effective.
- Such villages have to be electrified through locally available renewable sources in order to meet the national goal of universal electrification.

STATEMENT OF OBJECTIVE

- "To provide electricity at affordable rates for meeting present and future needs of households in remote villages through systems which are reliable, durable, easy to operate and easy to maintain".

MAIN R.E. TECHNOLOGIES FOR VILLAGE ELECTRIFICATION

- Small Hydro
- Biomass Gasification Systems
- Biogas based Engines
- Biofuel Engines
- SPV Power Plants
- SPV Home lighting Systems

- *A majority of the villages electrified so far use SPV home lighting systems.*

RECOMMENDATIONS - GENERAL

- Definite role of renewable energy for meeting energy needs of the people and for electrification of remote areas in NE states.
- State governments who have primary responsibility for promotion of renewable energy should play a more proactive role.

RECOMMENDATIONS - INSTITUTIONAL

- In light of the important role of renewable energy, it should be given equal status in state plans as electricity and oil.
- Separate departments of new and renewable energy on the lines of the central government ministry, or, separate divisions under departments of energy/power, be created and entrusted with the responsibility for expansion of renewable energy use.

RECOMMENDATIONS - FINANCIAL

- States should prepare an annual plan for renewable energy and pose it to Planning Commission along with the plan for electricity sector. This will mainstream renewables.
- Salary and overheads of staff and the renewable energy division should be transferred to non-plan budget.
- Non Plan budget line for maintenance and upgradation of systems should be created.

RECOMMENDATIONS - TECHNOLOGICAL

- Develop region specific system designs.
- Create institutional infrastructure for absorbing and acting upon the feedback from users and for providing technical back-up.
- Promote local manufacturing/assembling particularly for solar PV and biomass gasification.
- Solar PV homelights to be promoted extensively.

RECOMMENDATIONS – PROGRAMS RELATED

- CFA for all technology areas should be uniform 90%.
- Normative costs for calculation of CFA should be higher by upto 10% for North Eastern states.
- Number of installments of CFA should be reduced.
- States to prepare a master plan for small hydro. MNRE and NEC to fund the task.
- States to announce private sector participation policy for renewable energy power.
- Bamboo based biomass power projects of 5 MW be promoted through private sector.

RECOMMENDATIONS – HUMAN RESOURCES

- Staff should be employed against permanent posts in the renewable energy divisions.
- Heads of R.E. divisions should be at least at the level of superintending engineers.
- Promotional avenues of staff to be kept at par with SEB and PWD.
- Regular/dedicated training programmes for technical staff.

RECOMMENDATIONS – REMOTE VILLAGE ELECTRIFICATION

- States must provide for matching funds.
- The requirement of matching funds to be made a part of the state annual plans.
- Possibility of obtaining matching funds from Ministry of Tribal Affairs (for tribal villages), North Eastern Council, etc. to be explored.
- A coordination mechanism for mobilization of matching funds to be set up.
- Prepare master plan for electrification of all habitations. This is also required as part of rural electrification policy.
- Strengthen organizational structure for monitoring, upkeep, upgradation, etc.

THANKS