

Developing Countries Plenary session on Energy Poverty

Energy Poverty Alleviation in India

10.45-12.15hrs

5th November 2008, EA2008, Mexico,

Energy Poverty-facts & figures

- World: 2 billion without access to electricity
 - Rural India: 400 million (57% of population)
 - Target 100% electrification by 2012
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Village Electrification

Earlier definition:

A village is classified as electrified if electricity is being used within its revenue area for any purpose what so-ever.

New definition:

- The basic infrastructure such as distribution transformer and or distribution lines is made available in the inhabited locality within the revenue boundary of the village including at least one hamlet/Dalit Basti as applicable and
 - Any of the public places like Schools, Panchayat Office, Health Centres, Dispensaries, Community centers etc. avail power supply on demand and
 - The number of household electrified should be minimum 10%
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Electrification of Households

Overall electrification in the country	No. Households	Percentage
Total no. of Households	138.27 million	
Households electrified	60.18 million	43.5%
Households yet to be electrified	78.09 million	56.5%

Cooking Energy

- 75% of rural households depend on firewood for cooking, 10% on dungcake and about 5% on LPG.
 - 22% of urban households depend on firewood for cooking, another 22% on kerosene and about 44% on LPG.
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Lighting Energy

- ❑ 50% of rural households depend on kerosene and another 48% on electricity
 - ❑ 89% of urban households depend on electricity and another 10% on kerosene.
 - ❑ Unelectrified households very high in Bihar, Jharkhand, Orissa, UP, NE, West Bengal, Chattisgarh and Rajasthan.
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Initiatives

- Under the Electricity Act, 2003 there is no requirement of license for standalone generation and distribution of power in rural areas.
 - **Rural Electricity Supply Technology (REST) Mission** was set up in September '02. The base objective of formation of REST mission is to accelerate electrification of all villages and households progressively by year 2012 through local renewable energy sources and decentralized technologies, including through the conventional grid connection.
 - The Mission is also to identify technologies that could be used in providing affordable and reliable power supply to rural areas and effect implementation through distributed generation schemes using-
 - Available technology options
 - Innovative financing
 - Grass root Institutional arrangements
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Initiatives

Rajiv Gandhi Grameen Vidhyutikaran Yojana (RGGVY)- Ministry of Power

- Major national effort to universalize access to electricity – 57% of rural households were without access in 2001.
 - Launched in 2005. Targets :
 - 1,00,000 un-electrified villages.
 - 78 million rural households in un-electrified and
 - electrified villages.
 - Provides 90% capital subsidy. 100% capital subsidy for electrification of Below-Poverty-Line (BPL) rural households.
 - 44,000 villages electrified. Another 22,000 villages covered under intensive electrification. About 2 million connections given.
 - USD 1.5 billion invested. Another USD 6.75 billion provided.
 - National programme for Franchisee development launched.
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Initiatives

Rajiv Gandhi Grameen Vidhyutikaran Yojana (RGGVY)- Ministry of Power (contd.)

- ❑ Franchisees in place in 14 states, covering 63,000 + villages.**
 - ❑ Generated employment for villagers and improved consumer services.**
 - ❑ Resulted in significant improvement in revenue collection- in some cases more than 100% .**
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Initiatives

INTEGRATED RURAL ENERGY PROGRAMME (IREP) - Ministry of New & Renewable Energy

- ❑ IREP aims at promotion of an optimum mix of both conventional and non-conventional energy sources in selected Blocks in the country.
 - ❑ Central Sector Component - Provides grants for support staff in the IREP project cells at the State and Block levels, training of the staff and extension work.
 - ❑ State Sector outlays - Utilised for the implementation of IREP Block Energy Plans
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Initiatives

EXISTING RURAL ENERGY PROGRAMMES

- ❑ National Biogas & Manure Management Programme
 - ❑ Solar Thermal Applications in Rural Areas
 - ❑ Solar Photovoltaic Programme for rural areas
 - ❑ Biomass Gasifier Programme for Power Generation for Meeting unmet demand in electrified villages
 - ❑ Biogas based distributed power generation programme
 - ❑ Village Energy Security Programme
 - ❑ Remote Village Electrification Programme
 - ❑ Fuel Wood Programme
 - ❑ Kerosene/ Diesel
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What we have done so far for achieving Rural Energy Security in India

Renewable energy source →	Potential	Installed capacity as on 31.03.2008
Family Type Biogas Plants	12 million	3.9 million
Solar PV		1.3 million systems (domestic & Street lighting and telecommunication etc)
Remote Village Electrification		4500 villages/hamlets (Mostly solar lighting systems)

Government Plans (2007-2012)

Renewable energy source	Proposed Targets
Renewable Power Stand Alone Systems (Solar, wind, small hydro biomass etc)	1,000 MW
Family Type Biogas Plants	2 million plants
Remote Village Electrification	10,000 villages

Initiatives of WEC-IMC

- WEC-IMC is catalysing synergy in energy to achieve its mission of promoting sustainable development for greatest benefit of all
 - **Alleviation of Energy poverty** is a key agenda in WEC-IMC's Business plan 2008-10 –REACH
 - Partnering with like minded NGO's and organisations for furthering the cause
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Partnering with Institution of Engineers

- The Institution of Engineers (India)(IEI) is a unique professional body encompassing 15 engineering disciplines and with an overall membership of over 0.5 million of professional engineers & students and operates through 94 State and Local Centres and five Overseas Chapters .
 - IEI serves its members primarily through dissemination and updating of engineering and technological knowledge, through Technical Activities, such as seminars, symposia, continuing education courses, workshops, paper meetings, conventions, conferences, etc at both national and international levels;
 - WEC-IMC is using the wide outreach of this organisation and partnering with IEI for capacity building and organising trainings and workshops at grassroot level to encourage entrepreneurship in sustainable energy development & energy poverty alleviation
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Green Power Initiative

- ❑ Large number of one dimensional supply side target oriented programmes that do not take into account the substitution and complementarity effects between them and needs and priorities of end users
 - ❑ Need for a decentralised integrated programme with focus on the end user
 - ❑ Need for a delivery system for ensuring that the existing programmes and their subsidies reach intended beneficiaries.
 - ❑ Awareness and facilitation drive for extensive installation of solar applications for households/dwelling units in urban living areas in association with Ministry of New & Renewable Energy
 - ❑ Through this drive WEC-IMC intends to reach the end users and facilitate them in selection & implementation of sustainable energy options.
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South Asia Centre for Energy Access (SACEA)

- WEC-IMC to setup South Asia Centre for Energy Access (SACEA) in association with GVEP International to address various issues pertaining to energy access in S. Asia.
 - The Centre shall undertake various activities/programmes as under:
 - Financing facility to provide appropriate enterprise and end consumer financing
 - Capacity building facility to provide technical and business development support to energy enterprises
 - Monitoring and Evaluation (M&E) centre
 - Information/knowledge/technology sharing & transfer
 - SACEA to be located in WEC-IMC
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THANK YOU
