ENERGY FOR OUR COMMON FUTURE

Civil society perspectives on the World Bank energy strategy review

POVERTY

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Re-orientation in the Bank's Role in Energy Strategy

- Prioritization of Bank's Funding: needs to redefine its role in the energy sector, particularly with regard to financing fossilfuel based projects.
- Re-define "Energy Access" "Differentiate between "electricity " and "Energy"
- Re-focus to Ensure "Equitable Energy access".
- Scale is not necessarily access and particularly equitable energy access.
- Ensure that Energy project planning must follow a bottoms-up approach – with communities involved in need assessment and project design
- Environmental and social factors, at both national and local community levels, must be part of comprehensive cost-benefit analyses of energy options.

Energy Poverty: An Indian Civil Society Perspective on

Energy Strategy

Background: An Overview of State of Affairs

- Huge power deficit: Overall deficit of close to 86,000 Million kWh
- Power outages range from 2-20 hours on a daily basis, and 14-16 hours in rural areas.
- Huge gap between Urban and rural energy infrastructure even today.
- India's per-capita electricity consumption is less than one-fifth of the world average of 2,596 kWh. (520 kWh)
- Only one-sixth of Indian households with electricity consume over 100 kWh per month, compared to the average US household consumption of over 900 kWh per month.
- And the Urban Vs Rural per-capita consumption is in the ratio of 7:3 with close to 2/3rd of our population living in rural areas.
- Kerosene continues to remain the main source of lighting for rural households with 50 percent of the household depending on Kerosene for lighting
- For 86% of the rural households, the main energy for cooking comes from traditional bio-mass, which is wood chips and Cow dung cakes and only 5% have access to LPG for cooking in rural areas
- Over 100,000 Villages yet to be electrified
- Over 45 % of Indian households have no access to energy

Snap Shot of Electricity Consumption pattern in India



Energy and Development - Equity

Distribution of Electricity Consumption by Income Class



Cooking Fuel Consumption: Urban Vs Rural



Fuel Wise Energy Consumption Pattern



Comparison of Hours of Electricity supply: Urban Vs. 50 Kms away from City



Comparative Map of India with Thermal Power Plants and level of household electrification



Aligning Clean Growth with Development

	BAU Focus		Equitable Development
INDUSTRY	Large Industry		Small-scale industry
ELECTRICITY	Grid-connected	4	Off-grid systems
TRANSPORT	Automobiles		Rail and public
RESIDENTIAL	Link en		
	Urban		Rural

Model Projects Required in India

- A Community Owned, designed, built, operated and Maintained, renewable energy mini-grid system in a tribal village
- Designed to cater to the energy needs of 50 households with a population of 300 people - lighting, heating, piped drinking water and sanitation.
- Provides for enhanced livelihood options with enough energy for pumping optimum water for irrigating lands on a sustained basis.
- Also options for setting up small agro based units for enhanced livelihood options
- A management model where the governance is with the community

Salient Features of the Model

- The management model is based on realistic pricing

 the user has to pay for usage and the tariff is based
 on the quantum of usage.
- While the ownership of the system lies with the communities, there is a component of government financing.
- This model brings together the key components of Government participation, community participation and involvement of financial intermediaries or the Bank.

Salient Features of the Model

- Completely carbon neutral
- Enhances work days from the current 250 days to 365 days
- Reduces drudgery amongst women which means no longer walking 10 Kms every day for fire wood and further 4 Kms every day for drinking water – frees up time to pursue livelihood options
- Reduced health hazards due to sanitation facilities being provided and freedom from smoke from fire wood
- Energy available when needed
- Lighting for children to study at nights
- Scope for providing for entertainment radio/television

Environmental Benefits

- Assuming a 14 hour energy supply, this village has potentially saved 100 kWh of fossil fuel based electricity per day or 36,500 kWh per annum.
- This small village tribal village in India could help in saving approximately 30,000 Kgs of Co2 every year.



The Gold Rush! Oops Coal Rush

65th MEETING OF THE EXPERT APPRAISAL SUB: **COMMITTEE ON THERMAL POWER AND**

COAL MINE

Item no. 12

4.45-5.30 P.M.

PROJECTS

Feb. 12th & 13th 2010 AT 10.00 HOURS DATE AND TIME : VENUE TANSEN HALL, SCOPE COMPLEX, LODI ROAD, NEW : DELHI

AGENDA

Day	Time	Project Name	1		12
One:			ltem no	19	12
Item No. 1	10.00-10.30 A.M.	1X660 MW Additional Coal Based TPP with Supercritical			D
		Technology at DCRTPP Yamuna Nagar (Haryana) by M/s	ltom no	20	1
		HPGC LtdTOR	item it). 20	г. Б
ltem No. 2 10.30-11.15 A.M.		1200 MW TPP at Bhumka District:Sidhi (MP) by M/s ACB (India) Ltd-EC			P.I
Item No. 3	11.15- 11.45 A.M.	Presentation by NTPC on their request for relaxation of			
		standards	ltem	2.00)-
ltem No.4	11.45-12.30 P.M.	12 MW Biomass Based Pp at Vill.Baghaura,	no 21	2 30	١
		District: Patila (Punjab)By M/s Punjab Biomass Power Ltd-	110. 21	L.30	
		EC		P.M.	_
ltem No. 5	12.30 -1.00 P.M.	2x660 MW Super Critical TPP at Vill-	ltem	2.30	1-
		Khursapar, Pandhartal, Tahsil-Umrer,District: Nagpur, by	no. 22	3.15	i
		M/s ASTARC Power Pvt. LtdTOR		P.M.	
ltem No. 6	1.00-1.30 P.M.	4000 MW Ultra Mega Power Project	ltem	3.15	-
		atKrishanapatnum, Distt. Nellore (A.P.) by M/s Costal	no 23	3 45	
		Andhra Power LtdChange of location of colony as earlier	110. 25	0.40	
		suggested by EAC.		Р.М.	_
		1.30-2.00 P.M Lunch Break	ltem	3.45	/-
Item No. 7	2.00-2.30 P.M	I. 1320 MW (2x660 MW) TPP at Mulur, District Udipi,	no. 24	4.30	1
		Karnataka by M/s NSLNagapatnam Power		P.M.	
		and Infratech Pvt. Ltd-TOR	ltem	4 30)-
Item No. 8	2.30-3.15 P.M	I. 2x660 MW TPP at Vill. Lalpur DistrictShahdol (MP) by	no 25	5 00	•
		M/s SJK PowergenPvt. LtdEC	110. 25	5.00	1
ltem no. 9	3.15-3.45 P.M	I. 1x660 MW Stage-II Expansion Project		P.M.	_
		at Anpara, District:Sonebhadra (UP)	ltem	5.00	1-
		by M/s Lanco Anpara Power Pvt. LtdTOR	no. 26	5.30	IP.
Item no. 10	0 3.45-4.15 P.M	I. 1350 MW (5x270 MW) Coal Based TPP	ltem	5.30)-
		at Nandgaonpet District Amravati	no 27	6.00)
		(Maharashtra) by M/sIndiabulls Power Ltd	10.27	D M	
		Amendment in EC		F.M.	_
ltem no. 1	1 4.15-4.45 P.M	I. 1x 660 MW Coal Based extension unit	Item	6.00	<i>i</i> -
		at Harduaganj TPS Kasimpur, District: Aligarh (UP) by	no. 28	6.30	1
		M/s UPRVUNL-TOR		P.M.	

2x660 MW Coal Based PP

					-
	13.02.2	2010			
	Item no. 14 10.00- 10.15 A.M.		0- 5 A.M.	Presentation on Desalination technology by Mo-Earth Sciences	
	ltem no	. 15	10.1	5-	2x660 MW Coal Based TPP atKaj/Nenavada Vill. Kodinar, Taluka, Junagadh, District: Gujarat by
			10.4	5 A.M.	M/sShopoorji Pallonji Energy(Gujarat) Pvt. LtdTOR
	ltem no	Item no. 16 10.45- 11.15 A.M.		5-	1050 MW Anta Combined Cycle Power Project Stage-II, District: Kota (Rajasthan) by M/s
				5 A.M.	NTPC LtdTOR
	ltem no. 17 11.15-		5-	2x 660 MW Tandda TPP Stage-IIAmbedkar Nagar District, Uttar Pradesh by M/s NTPC Ltd-	
	12.0		0 P.M.	EC	
	ltem no	ltem no. 18 12		0-	1400 MW Auraiya Combined Cycle Power Project Stage-II ,District:Etawah (UP) by M/s
			12.3	0 P.M.	NTPC LtdTOR
	ltem no. 19		12.3 P.M.	0-1.00	1050 MW Baddrpur Combined Cycle PP, Stage-III, Phase-I at Badarpur in southern Delhi by M/s NTPC LtdTOR
	ltem no	. 20	1.00	-1.30	2640 MW Coal Based BhavanapaduTPP of M/s East Coast Energy Pvt. Ltd. near
			P.M.		village Kakrapalli, inSrikakulam Distt., in Andhra Pradesh - Reg. Consideration of Report
					of Sub-Group of the NBWL.
					1.30-2.00 P.M. Lunch Break
	ltem	Item 2.00- 2x60 M		2x60 M	W Coal based TPP
	no. 21	2.30)	atSithu	rnatham, Sirupulalapettai andEguvarpalayam Villages,Gummidipoondi Taluk, ThiruvallurDistrict
-	P.M. (T.N.)b		(T.N.)b	y M/s ARS Metals Ltd TOR	
	ltem 2.30- 5x250		5x250	MW (+- 10%) TPP at SinnarSEZ Nasik, District Maharashtra by M/s Indiabulls Realtech Ltd	
	no. 22	3.15	5	EC	
	P.M.				
	ltem	3.15	;-	Additio	n of one more unit of 660 MW in Panampuram, MuthkarMandal,SPS Nellore District(A.P) by
r	no. 23	3.45	5	M/s The	ermal Powertech Corporation India LtdTor
		P.M.			
	ltem	ı 3.45		1x600	MW Coal Based TPP at Village-Jaipur ,District Adilabad (A.P.) by M/s Singareni Collieries
	no. 24	4.30)	Compar	iy LtdEC
	lt and	P.M.	<u>, </u>	C. COO	MW Conservations News Device Device as Conservation Child's Madines Device in American sector
1	item	4.30)-	6X6UU	MW Sasan Ultra Mega Power Project at Sasan, Distt. Signi, Magnya Pradesn Amengment of
	no. 25	5.00)	EC	
	ltam	P.M.	<u>, </u>	Dropoor	ad Caal based CCO NW Thermal Dewar Station at Labora, Vavatmal, Makarashtra by M/a
	no 26	5 30)-)D M	манас	ENCOLTOR
	110. 20	5.30)	Pavalas	ena Thermal Dower Project Stage-IV (1x600 MW) pear V V ReddyNagar
	no 27	6.00)	Yerraou	Intla Mandal KadanaDistrict A P by M/s APGENCO-FC reconsideration
	10. 27	P.M	,	lienagu	intia manual, hadapadistilit, Ali by M/3 Al OLNOO-LO ICONSIDEration
_	ltem	6.00)-	Present	ation on the outcome of Copenhagen Conference by M/s *-Seema Arora.CIA
,	no. 28	6.30)		
		P.M.			

Key Asks

Overarching

- The Bank should lead the way in funding low-carbon energy generation, even if the technologies involved are costlier than traditional options.
- The Bank should help to harmonise the lending policies of all international development finance institutions in ways which will support investments in low-carbon energy.
- The Bank should act as a knowledge manager collating and promoting several models of renewable energy development from which governments can choose and adapt to their own respective countries.

Specific Demands

Redefining the role of the World Bank Group

- help mitigate investors' early jitters investing in the renewable energy industry and thus to encourage domestic financial markets to invest in the RE markets
- The Bank should help build governments' capacity for longterm planning, project appraisal and implementation of all renewable energy technologies as one of its key priorities
- The Bank should focus on a few critical issues and put its limited resources to achieve it rather than have a laundry list of possible funding options

Demands

Addressing the energy needs of the Poor

- address the issue of poor people's energy poverty and not simply assume that more electricity will bring power to the 'power-less'
- Energy is not electricity, but goes well beyond lighting includes heating requirements and poverty alleviation and enhancement of livelihood options
- Link energy to jobs and livelihoods options, market access etc
- Address the key issues of (a) universal, reliable access; (b) equitable access (bridging the gaps between urban and rural and between the availability of energy supply and access to services); (c) affordable access (pricing and subsidies); and (d) appropriate access.

Energy Management and Governance

- Poor efficiency, lack of demand side and peak hour power demand management measures, unrealistic pricing systems, huge Transmission and Distribution Losses....the list is endless.
- Therefore need to re-look at the centralised model of generation and distribution with clear advantages of a decentralised renewable energy model being:
 - Reduced Losses
 - Increased efficiency
 - Reduced infrastructure cost
 - Better quality
 - Rural development and livelihood generation
 - Inclusive growth and energy secure communities
 - Potentially more democratic systems with participation of the people at all levels

Generation Capacity Additions

- Realistic assessment of future energy requirements clearly de-couple GDP growth with Energy growth
- Energy Efficiency needs to become the center piece of the national and state energy policy
- A gradual shift to Renewable energy and options should include appropriate and locally available resources such as biogas, mini- and micro-hydel projects and so on in addition to solar and wind. Clear time lines with ambitious plans

Transparency

 Fundamental to a new policy should be an evaluation of the past performances of Bankfinanced energy projects

Thank You