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# **ENERGY ACCESS THROUGH EFFECTIVE NETWORKS: DELHI ROUNDTABLE MEETING MINUTES**



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## Countrywide Network for Off-Grid Renewable Energy and Energy Access Potential Interventions and Value-Added Activities Summary - Delhi Roundtable Discussion: Friday, 10 May 2013



### **Background**

The Council on Energy Environment and Water (CEEW) produced an issue brief as a culmination of its extensive desk research and the types of issues that were raised during CEEW's discussions with over 70 stakeholders. The document highlighted a case for an overarching off-grid network in India and its participants could rest on successfully delivering services in some or all of the following five areas: access to finance, skills and training, technology (including testing and certification), policy advocacy, and networking.

As part of its on-going efforts to build consensus around a set of value-added services, CEEW facilitated roundtable discussions in Delhi and Bangalore on 10 and 14 May respectively to garner reactions and inputs on a proposed long-list of interventions and activities. This summary outlines key points made at the Delhi roundtable discussion.

### **Introduction and Opening Remarks**

**Dr Arunabha Ghosh, CEO, Council on Energy, Environment and Water (CEEW),** initiated proceedings with a brief introduction to the project on countrywide network/alliance on energy access and activities to date. Dr Ghosh highlighted three guiding rules CEEW has used when understanding the potential for a countrywide network: (i) delivering services that lower transaction costs of its members; (ii) the need to get governance right by taking in the views of diverse stakeholders and (iii) being financially sustainable. It was noted that any network should be structured in a way which enables it to deliver information services, facilitative services and those services that help organisations in their day to day operations.

**Mr William Hammink, Mission Director, USAID India** then provided observations ahead of the deep dive discussion and drew attention to USAID's new five year strategy that redefines the way it works with its partners. He said that one of USAID's key focus areas constitutes solving challenges related to extending energy solutions to 400 million Indians having no access to electricity. He deemed access to energy being integral to a country's development and pointed towards the role of distributed RE systems in bridging the existing energy gap. He concluded by saying that he perceived the role of an off-grid energy access network as critical to advancing energy solutions.

### **Deep dive discussion on potential network interventions and activities**

A tentative timeline for the evolution of a network was presented to participants covering interventions under the headings of access to finance, skills and training, technology, policy advocacy and networking. Participants were encouraged to provide critical observations on the potential activities.

#### **Access to Finance:**

Insights were garnered from participants regarding a network's potential role in alleviating challenges faced by entrepreneurs in accessing finance. This included activities such as creating a portfolio of investable projects, greater financier training and novel approaches to tendering potential projects. Some participants expressed an interest in a network following a programmatic approach to identifying and aggregating projects. Others expressed interest in a network helping to break down the total number of un-electrified villages in terms of districts/blocks and then tender these out. Several stakeholders supported the idea of bankers training and expressed that it is crucial to reach out to financiers to understand various investment criteria prior to developing a project portfolio.

#### ***Portfolio of Investable Projects***

- Participants suggested that identification and aggregation of projects under a well-designed program could be a useful role for a network. Grameen Shakti in Bangladesh working under the Infrastructure Development Corporation Limited (IDCOL) solar energy program was cited as an example of an organisation that has the confidence of investors and develops credible investable projects. It is run by corporates with technical and financing skills which bring in credibility while approaching potential financiers.
- It was pointed out that although several attempts are being made to create portfolios of investable projects, they are not gaining ground due to a mismatch in expectations between financiers/investors and project developers.
- Participants showed a keenness to understand the exact number and location of un-electrified villages in India. Developers are willing to work in clusters but are not sure how to go about it. It was recommended that the network create a project portfolio by

breaking down the total number of un-electrified villages in terms of districts and blocks prior to tendering these out. This could also present a viable route to involve stakeholders such as MNRE, SECI, financiers, etc. It was strongly suggested that tendering out projects in silos would not solve the problem of energy access.

### ***Financiers Outreach***

- Participants highlighted a need for greater interaction between funders and project developers as there is currently insufficient communication between the two. Establishing an effective platform for the two sets of actors to talk to each other is a large challenge.
- It was recognised that there is a lack of understanding regarding the various stages of growth of an enterprise on the ground and the mix of financing required.
- Equity investment is often used for working capital. It was highlighted that clarity on investment criteria was vital before creation of a project portfolio. It would be useful to formulate basic criteria to ascertain which projects qualify for grant, which ones are investment ready and so forth. A key issue that surfaced during the discussions was that determining the investment criteria can be difficult since none of the investors/financiers have it sorted out. There aren't common standards of investments at the investor forums.
- Several participants felt that a network can play a key role in educating bankers regarding the off-grid RE ecosystem. It was noted that financiers encounter a big sense of risk with off-grid RE projects. A network can help play an important role in demystifying these risk perceptions.
- It is also essential to determine “who’s at the table” while carrying out activities related to financiers outreach. It was proposed that engaging appropriate actors such as the country’s apex bank in bankers training initiatives can go a long way in reinforcing the importance of expanding lending to this sector.
- It was also pointed out that the Ministry of Corporate Affairs and soon to be implemented CSR requirements for large companies has a potentially significant role to play in bringing funds to this sector. The network could provide guidance to the CSR funders and Ministry of Corporate Affairs on ways to channel their resources.
- Some participants were of the opinion that financiers outreach can take a possibly longer time and that it should be a continuous process.

### ***Administration Costs for Finance***

- It was highlighted that efforts are underway to try and lower administrative costs of financing institutions/banks. One of the participants drew attention to NABARD’s website which has a link on model bankable projects and ways to leverage that. It was discussed if, through an independent platform, it is possible to scan the environment periodically (six months/annually) to investigate technologies which meet certain minimum technical requirements and can be proven bankable. NABARD could then

develop bankable models and notify banking institutions which may help dissipate risk perception around a certain technology.

- Several participants pointed out that banks don't look at certain technologies such as solar water pumping systems due to their large ticket size. So the question was raised if model bankable projects can also be created by a network that would help lower transaction costs incurred by firms that would otherwise try to convince banks individually.

## **Skills and Training**

Skills and training was seen by participants as a significant area for potential intervention. There was a general consensus on the potential role of a network in utilising the collective intelligence of enterprises in defining standards for training curriculum. Participants were also of the view that the standardised training courses be certified by official sources. The importance of involving Advanced Training Institutes (ATIs) that can then train instructors at Industrial Training Institutes (ITIs) was also raised.

### ***Train the Trainers***

- One of the issues put forth by one of the participants was the dearth of trained aggregators at local level who can assemble cost effective energy appliances suited to rural needs.
- It was expressed that training the channel is important which will play an instrumental role in pushing off-grid energy products into the rural market.

### ***Technician Training***

- The discussion was initiated with participants highlighting some of the challenges faced by them during conducting training programmes. It was expressed that on one hand there are training companies/consultancies that conduct short term workshops (spanning 3-7 days) which are competency focussed/focussed on specific knowledge aspects but don't delve deep enough. On the other hand, there are institutes that don't focus on competencies that can meet the industry's demands of employees equipped with particular skill-sets
- Some participants involved in training and capacity building also revealed that they encounter difficulty in revising the course curriculum since technology is evolving quite rapidly.
- In view of the challenges encountered while training RE personnel, several participants endorsed the fact that standards should be defined for technician training by the industry itself since the existing training institutes are failing to deliver. It was recommended that the network can play a role in bringing companies together to feed their collective intelligence into designing the curriculum and figure out the standards for training modules. Participants were of the opinion that would have the potential of

bringing concrete results as compared to the efforts of a limited set of organisations in standardising training curriculum. However, it was also noted that standardisation should not occur across the board but must keep in view the nature of business and technology.

- It was also strongly suggested that the courses be government accredited to establish and maintain credibility and ensure that students enrol in the training programmes.
- Another key issue highlighted during the discussion was that training merely does not solve the problem and that it is also important to ascertain employability of the trained technicians. It is vital to map out the various companies/enterprise that can absorb the skilled workforce. For example, the Chhattisgarh Renewable Development Agency (CREDA) operates certified training courses for solar installers and it is mandatory for companies who win bids for solar installations to absorb workforce trained and certified by CREDA.
- Several stakeholders also revealed that they were not aware of existing training programmes carried out by organisations/enterprises for village level entrepreneurs (VLEs) and technicians. They expressed interest in learning more about these programmes since it would enable them to hire skilled employees.
- It was noted by a participant that in order to enhance effectiveness of technician training programmes, it is essential to engage and train ATIs. ATIs are usually involved in training instructors at ITIs who then further impart training to students.

## **Technology**

Participants highlighted the importance of introducing performance benchmarks and regulations/standards related to renewable energy products (such as clean cookstoves) and consumer safety during the discussion. A hub and spoke model of technology testing emerged as a key intervention that participants wanted a network to facilitate.

## ***Quality Assurance Standards***

- Participants pointed out that performance benchmarks of off-grid energy products are absent in India. Few participants said that they took it upon themselves to ensure quality and safety standards of their projects and expressed concerns that standards and regulations lead to more paperwork which can increase bureaucratic hassles. However, there was a general consensus around the requirement of regulations pertaining to off-grid energy products (example clean cookstoves), their performance and safety.
- It was also highlighted that installation standards which are present elsewhere in the world are absent in India and Africa. But this thought was also accompanied with the fear that introducing a new set of standards around off grid installations can lead to increased transaction costs.

### ***Local Technology Testing***

- There were suggestions that a hub and spoke model be developed for enhancing ease of technology testing. It was proposed that preliminary testing be carried out in regional institutions followed by advanced testing at centres accredited by MNRE in places such as Delhi, Bangalore, Kolkata, Roorkee, etc.
- Some also expressed that every lab must follow the same testing procedures.

### **Policy Advocacy**

Keeping in view the difficulties government policies and programmes have faced in achieving targets related to electrification, participants called for the creation of a decentralised renewable energy framework.

- It was pointed out that government's plans to provide electricity to all by 2012 were not able to be met. Therefore, it was argued that there is an urgent need to formulate a decentralised energy framework for expanding energy solutions across the country and particularly in rural and remote areas.
- Also, needed are policies that would create the right environment for investment in off-grid renewable energy and energy access.

### **Networking**

The discussion generated a lot of interest around an off-grid information hub and consumer awareness programmes regarding off-grid RE technologies.

### ***Off-Grid Information Hub***

- A number of participants, especially those just starting out, were in agreement about the need to have an off-grid information hub.
- Information on various training programmes run by organisations, funding opportunities, and updates on state level activity was seen as potential information services that a network could provide.

### ***Consumer Awareness***

- Participants suggested that standards pertaining to technology are important but the full potential of such an activity can be realised only when consumers are educated what the standards indicate and how to distinguish various clean technologies. For example, consumers must be made aware of the various clean cookstoves technologies, their benefits and what the standards convey with respect to a particular technology.

### **Other comments**

- Few said that once the bankers are trained, then the risk guarantees can step in and play a role in terms of mitigating credit risk of the customers/enterprise.
- One of the participants noted that a well-managed program offering audited results on customer level performance could serve well to bring in finance.
- It was also highlighted that a routing agency for the loan guarantee fund would be important.
- There were some who suggested that network would not be well suited to resolve challenges related to access to finance since the off-grid space is quite nascent and diverse.
- One of the participants offered the opportunity for the network/alliance to leverage an already existing and well-established knowledge sharing platform.
- There were suggestions that interventions related to quality assurance technology standards and skills and training offer a greater scope to leverage an alliance as compared to access to finance which may encounter several challenges given the diversity of this sector.

### **Concluding Comments**

**Ambassador Carlos Pascual, Special Envoy and Coordinator for International Energy Affairs, U.S. Department of State** reflected on the proceedings by highlighting the importance of integrating finance, technology, skills and quality control in a way that ensure viable results are delivered on the ground. He indicated that a portfolio of projects might be useful to attract financiers. He also noted that costs incurred by a borrower would depend on the efficiency of the banking system, various lending procedures and presence of adequate number of trained banking personnel. He emphasised the need of ensuring quality control across the board (suppliers, various channels of service delivery, technology etc.). Drawing on the exemplary efforts of Bangladesh's IDCOL solar energy programme, he proposed the concept of a development finance institution (DFI) for the Indian off-grid energy sector. He suggested that a DFI could not only play the role in attracting external finance, but also facilitate access to local finance. He also pointed out how IDCOL through a competitive process shortlisted credible local partners for implementing the programme. It helped him illustrate the importance of ensuring quality control of partners participating in the programme. Finally, he suggested that the DFI should also be responsible for the issues such as access to information and policy regulations around import tariffs and tax credits.

**Mr S Padmanaban, Director, South Asia Regional Initiative/Energy Program, USAID India**, summed up proceedings by reinforcing that a network/alliance might not be able to resolve all the challenges faced by the off-grid RE sector. He emphasised that the network

definitely has the potential to make a significant contribution by helping reduce transaction costs and high initial investment costs incurred by firms. Reflecting on the discussions, he agreed that the network must prioritise in solving the ecosystem challenges which can then attract financiers to this sector. He also stressed on the need to disseminate inspiring success stories of the off-grid RE sector. On the technology front, he brought forward the need to look at the role of storage technologies in helping upscale energy access solutions. Lack of clear policies on mini-grids was seen as a crucial area where the network/alliance might intervene. He also drew attention to the fact that banks are wary of lending to the off-grid RE sector since they perceive it to fall under the ambit of power sector whose financial performance has been dismal. He also highlighted that a project oriented entity is important. He recommended that the network/alliance draw inspiration from the Distribution Reform, Upgrades and Management (DRUM) training programme designed jointly by Ministry of Power, Government of India and USAID India. The programme has executed training of around 50,000-60,000 people in the power distribution sector so far utilising competitive bidding to shortlist training institutions to administer the programme. Finally, he added that there was a need of a nimble, project and performance oriented entity/institution for the off-grid RE sector which the network/alliance might help advocate.

The discussion was concluded by, **Dr Arunabha Ghosh** outlining project's next steps that would include conducting a workshop in Bangalore to discuss network's potential interventions and activities. Over the next two – three months the CEEW would report back to participants with a roadmap to develop a countrywide network, include potential governance models and revenue sources.

## List of participants

List of participants	
Name	Organisation
Amitabh Rath	Schneider Electric India Pvt Ltd
Amresh Deshpande	Schneider Electric India Pvt Ltd
Anjali Garg	International Finance Corporation
AP Shrivastava	Maharishi Solar
Ashwin Gambhir	Prayas Energy Group
Brajesh Kumar Sinha	HBL Power Systems Limited
Daniela Gheorghe	ERC Eye Care
Darin Kingston	d.light design
Debajit Palit	TERI
Deepak Gupta	Shakti Sustainable Energy Foundation
Deepika Gupta	Practical Action Consulting
Don Mohanlal	The Nand and Jeet Khemka Foundation
GC Datta Roy	Development Environergy Services Limited (DESL)
Hari Natarajan	GIZ
Harish Anchan	Envirofit India Pvt Ltd
Isha Dua	Claro Energy
Joel Kumar	Centre for Science & Environment
Jordi Castella	Solar 4 Rural Villages
Jyoti Dar	Kuvam Microgrid Pvt Ltd
Kaisa Kosonen	Greenpeace
Kerstin Graebner	Indo-German Energy Forum Support Office
Lakshmi Krishnan	International Finance Corporation
Manik Jolly	SunEdison
Manish Ram	Greenpeace
Mrinmoy Chattaraj	Greenpeace
Nakul Sharma	Intercooperation India
Neelakshi Mann	Ministry of Rural Development
Nidhi Singh	MART
Payal Randhawa	The Nand and Jeet Khemka Foundation
Priyanka Anand	The Nand and Jeet Khemka Foundation
Puneet Ahuja	Urja Unlimited
Ramesh Jalan	UNDP
Ravi Prasher	Sheetak
Rekha Krishnan	Ashden India Collective
Ronnie Khanna	Nexant
S.K.Singh	CenoteclIndia Pvt. Ltd.
Sanjay Dube	Nexant
Sanjeet Malik	
Saurabh Lahoti	Ennovent
Siddharth Jain	Nuru Energy
Siva Rama	Anthropower
Sonal Adlakha	Claro Energy
Sumant Dubey	Kuvam Microgrid Pvt Ltd
Umang Maheshwari	Greenway Grameen Infra
Upendra Bhatt	cKinetics
Usha Rao	kfW
V Subramanian	InWEA
Vinod Kala	Emergent Ventures

