Roundtable Discussion

Promotion of Clean Energy Sources: Role of Policies & Regulations

Ahmedabad, Gujarat, January 29, 2013

1. Background

Consumer Unity & Trust Society (CUTS International), Jaipur and Vikram Sarabhai Centre for Development Interaction (VIKSAT) implemented a project 'Demand Side Management (DSM) & Renewable Energy (RE) in India: Capacity Building of Civil Society Organisations (CSOs) – DREC Project', with support from Shakti Sustainable Energy Foundation (SSEF), India. The project has been implemented in two states of India – West Bengal and Gujarat.

The overall objective of the project is to increase long-term capacity/awareness of consumer groups to demand for DSM and RE initiatives especially in the context of climate change, and also to understand, document and communicate their specific needs to the relevant policymakers.

During the tenure of the project, VIKSAT undertook several activities in Gujarat, which comprised baseline consumer perception survey of relevant stakeholders, followed by intensive consumer interaction programmes across different districts and capacity building programmes for the local CSOs. A final consumer perception survey was undertaken to determine the increased level of awareness, map practice changes, etc. through the project activities. The project continued over a period of 18 months in four districts of Gujarat, namely Mehsana, Ahmedabad, Patan and Kutchh with support of eight local CSOs.

2. Objective of the Meeting

A State-level dissemination meeting entitled, 'Promotion of Clean Energy Sources: Role of Policies & Regulations' was organised in collaboration with Gujarat Energy Regulatory Commission (GERC) at Ahmedabad, Gujarat, on January 29, 2013 to share the outcomes/impact of the project and discuss the role of policies and regulations in the promotion of clean energy sources in Gujarat. The collaboration with the regulatory agency was crucial to attract relevant government institutions in the meeting, so as to ensure effective discourse on policy issues pertaining to energy efficiency and renewable energy.

3. Participants

The meeting had successfully registered participants from diverse group of stakeholders. Several key policy makers such as GERC, Gujarat Energy Development Agency (GEDA), Uttar Gujarat Vidyut Corporation Limited (UGVCL) participated in the meeting.

S P Gon Chaudhuri, Head, Ashden India Collective and DREC Project Advisory Committee Member also attended the meeting as a special invitee. He is a national level energy expert and involved with government on policy issues in the energy sector. The purpose of inviting Chaudhuri was also to facilitate exchange of ideas/views between stakeholders in Gujarat and West Bengal.

Representatives from National Bank for Agriculture and Rural Development (NABARD); Naroda Enviro Projects Limited (NEPL); several academic, research and management institutions like Gujarat Energy Research and Management Institute (GERMI), The Energy & Resources Institute (TERI); Centre of Environment Planning and Technology (CEPT), Vikram A Sarabhai Community Science Centre (VASCSC), Nirma University of Science & Technology and Pandit Deendayal Petroleum University; CSOs in and around Ahmedabad; commercial agencies promoting EE equipment's such as HERA Energy Solutions; subject experts, media and project implementation team from Jaipur also participated in the meeting.

4. Inaugural Session

Welcome Address

At the outset of the meeting, a welcome address was delivered by **Dilip Surkar**, Director, VIKSAT. He briefly discussed the background of the project, scope and key findings of the final consumer survey. He laid emphasis that youth, self-help groups and children could be potential agents of promoting energy conservation.

Keynote Address

The opening session was presided by **P K Mishra**, Chairman, GERC. Mishra recognised the high potential of RE in the state and congratulated VIKSAT and CUTS for the pioneering initiative. He also observed that while there are challenges to initiate and sustain DSM measures, awareness amongst consumers regarding the role of energy conservation *vis-à-vis* climate change is the major outcome of the project that will have a long-term impact. He reiterated that the main focus of New Electricity Act is to safeguard consumer interests. He stated that outcomes of this project will help the government further improving relevant policies and regulations.

Finally, speaking on issues of accessibility along with availability of good quality electricity, Mishra quoted the Economist and Nobel Prize winner Amartya Sen, '*entitlements are extremely important*'. Sen studied Bengal famine and observed that many people died not because of shortage of food but because of inability to purchase. RE provides immense opportunities in remote areas, where the conventional source of electricity is not viable. He also highlighted the important role that CSOs can play in building the capacity of consumers to understand and comprehend issues related to the energy and effectively communicate the same to relevant policymakers.

Ketan Shukla, IFS, Secretary, GERC spoke about the precarious balance between needs of consumers and the need to encourage RE technology. Shukla shared that the most important aspect for any country aspiring to be a super power, is energy security. In majority of the developed countries, the per capita energy consumption is several folds more than India. Hence, energy security is one of the important aspects for India.

Apart from few states like Gujarat, there is a shortage in energy production by 12.7 percent. It remains a fact that approximately 500 million people in India still do not have access to electricity. Factors such as need for capacity addition, plugging the T&D losses, fuel constraints, environmental and financial concerns, , increasing population are to be dealt with. Under such

circumstances, DSM activities are highly important, and significantly reduce the demand for energy (up to 15 percent). He acknowledged the efforts of VIKSAT and CUTS for successful implementing the DREC project, which was timely. He laid emphasis on the overall findings of the final consumer survey and was quite happy to note that high percentage of consumers were willing to pay extra for clean energy sources. Thus, the challenge lies on part of the government to grab this opportunity and provide incentives to consumers to shift towards clean energy sources.

Referring to the famous quote of Gandhi, '*We are not doing a favour to the consumer. The consumer is doing a favour to us by giving us an opportunity to serve'*, he said that Gujarat is one of the state, where the Consumer Redressal Forum is promptly responding to consumer complaints. In Gujarat, majority of Discoms have established Demand Supply Management Cells and integrated DSM projects, energy efficiency and efficient lighting programmes to reduce the demand supply gap. However, he concluded that there are challenges ahead, such as raising awareness among consumers; building capacity of CSOs to effectively engage in the regulatory process.

N Srivastava, MD, UGVCL while speaking about the energy sustainability, reflected upon the adverse impact of development and the need to understand nature. He provided details of the different DSM strategies followed by UGVCL and the achievement in conserving energy in the agriculture sector by replacing old pump sets by energy efficient pump sets during the period 2009-2011. While elaborating on the scope of DSM, he stated that returns are far more lucrative by investing in DSM activities..

He further opined that by undertaking DSM measures on a large scale, a quantum of wasteful energy consumption is curbed. Other strategies were cash incentives for farmers who could reduce their energy consumers (project in Uttarwada with 800 farmers), reducing grid supply by integrating off grid solar energy, use of smart meters in Deesa and Naroda-Ahmedabad (to record and send feedback data about the use of energy at different time periods by consumers).

S P Gon Chaudhuri, Head, Ashden Energy Collective spoke about the challenges related to energy security and need for empowerment of consumers. He was happy to note the success of the DREC project in West Bengal and Gujarat. He mentioned that the first off grid power plant (1 KW solar project) was set up in North East in 1982. After 27 years, the first grid connected megawatt project, (even prior to the National Solar Mission in Gujarat), came up in Asansol, West Bengal. However, the energy scenario of the country as a whole is not very encouraging. He highlighted that consumers living in urban areas get around 7000-8500 hours of electricity every year whereas about 50 crore people do not have access to electricity and 40 crores consumers get erratic supply.

He highlighted that most of rural consumers lack awareness about their right to electricity. He suggested that energy demand will not be fulfilled if energy is generated only in urban areas; therefore off grid power can play a vital role in decentralised rural electrification. Thus, there is a need to have policies in place which are directed towards rural empowerment by setting up off-grid power plants.

Towards the end of the session, **Arun Talwar**, Deputy Executive, CUTS shed light on the achievements of CUTS towards protecting consumer interests and congratulated the team at VIKSAT for the successful completion of the project.

5. Presentation on DREC Project Outcomes

Ankur Baruah, Coordinator, DREC project presented the methodology and key findings of the project:

- Consumers are ready to pay a little extra for good quality electricity
- Increase in awareness about RE technology and energy efficient products
- Increase in awareness about regulatory commission
- High initial cost and lack of credibility of products as chief barriers in RE technology and energy efficiency promotion
- Increase in awareness about energy audits
- Awareness about the scope and role of CSOs in promotion of RE technology and energy efficiency

6. Presentation on 'Bridging the Gap between Policy and Practice: Role of CSOs'

Shambhubhai Desai, ANaRde Foundation and one of the local partners in DREC project shared his experiences at the grassroot level. He acknowledged that acceptance on issues pertaining to energy efficiency and RE energy has increased within their community due to the activities undertaken as part of the DREC project.. He also requested support from the government in demonstration of projects, provision of subsidies, systems of authentication by authorised agency, etc. to further the agenda of clean energy sources.

7. Panel Discussion on 'Promotion of Clean Energy Sources: Role of Policies and Regulations'

Sailesh Patwari, Chairman, NEPL spoke about the responsibility of industries towards the promotion of clean energy sources and the need to exchange information, ideas, etc. among the industry members on a regular basis. He suggested that policymakers should ensure that small scale industries should get access to credit facilities, so as to enable them to generate their own power by using RE technology thus reducing their dependence on utilities. He said that while energy is ample in Gujarat, it is most expensive in the country. Thus, energy saving is critical and since 1998-99 following the Pollution Prevention and Control Bill, energy saving has come to the fore front.

Deepak Gadhia, Trustee, *Muni Seva Ashram*, Goraj discussed the initiative taken by him in popularising solar cookers in the *Ashram* and nearby community. He felt that adequate pre-sales information and understanding consumers' needs through after sales visits is important to increase acceptability of the technology. He suggested that energy development agencies should not impose restrictions on consumers to purchase RE-based equipment's from a particular seller, rather the consumer should be given the freedom to purchase the equipment's from the open market and provided direct subsidy to make the purchase.

R N Pandya shared that GEDA has learnt a lot during its journey from a solar cooker agency to energy development agency. He informed that due to subsidies,70 percent of manufacturers are facing problems in sustainability. He mentioned that increase in prices of conventional sources of energy has a direct impact on increase in acceptance of the non-conventional sources. Promotion of star-labelled and energy efficient products is also important.

Gon Chowdhuri cautioned about the limitations of RE technology. In case of grid connected system, the cost of generation is considerably low (Rs 7-9 per KWH). He mentioned that the actual cost of generating electricity based on off-grid system, which is close to Rs 14-15 per unit at present. However, cost of equipment (solar panels) has come down but the cost of battery has escalated. While the life of the module is as much as 25 years whereas the batteries are short lived. He also brought the attention of the floor to the fact that while assessing the financial viability of off-grid projects, cost of battery replacement is usually ignored. This usually acts as a deterrent for developing a sustainable business model. However, once the battery replacement costs are factored, it adds to the cost and makes it less attractive for private entrepreneurs.

Floor Interaction

Udai S Mehta from CUTS mentioned that appropriate regulatory mechanisms need to be developed, which can also be a mixture of both 'participatory approach' and 'top down'. While issues that are of local in nature could be better addressed through participatory mode of governance structure, simultaneously policy, regulatory, and financing matters can be dealt at appropriate intermediary and or higher levels. Also, capacity building of all stakeholders is essential for sustainability of the project.

Further, he inquired about the role of policies in supporting the initiatives in Gujarat – in the potential growth of industries and clean energy sources. He also requested GEDA to shed light on reasons behind comparatively less practice change inspite of high level of awareness? He asked about the reasons behind costly non-conventional sources, whereas conventional energy is comparatively cheap due to high subsidy. If similar subsidies are used to promote clean energy sources, then why grid parity is not met? If the subsidies are removed, the scenario will be changed.

Responding to the query raised by Mehta, Patwari responded that the role of Government of Gujarat has been proactive but small and medium sized enterprises' (SMEs) point of view should be considered during the formulation of policies, etc. There should be separate policies to accommodate small but collective needs of the SMEs. He suggested that the government should aim at decentralised power for the poor people and make them aware of the limitations of the technology. High level of commitment from municipalities/authorities in initiating renewable projects is needed. Pandya responded that there is a need to put in place robust after sales services, provide adequate pre-sales information to consumers in order to increase acceptability of products.

Further, Chowdhuri mentioned that capital subsidies on solar lanterns is around 90 percent of the total capital cost, which comes out to be Rs 6 per whereas the cost of electricity generation is around Rs 20-25 per unit, which means that around Rs 14-19 per unit is being paid by the poor consumer from his pocket. Even with subsidy, such a model is not sustainable in the long run as rural consumers will not be able to afford such systems. This in fact is not only a burden on the consumer but also unfair as his urban counterparts pay much less for electricity. He stated that the real price of renewable electricity needs to be calculated while assessing the government's capacity to fund such projects.

Reacting to a query regarding LEDs, Pandya mentioned that since past two-three years, LED is gaining ground. He shared that an entire village near Gandhinagar has been adopted for demonstration of LED lighting and corporations have started replacing energy intensive lights with LED. He highlighted that GEDA has prepared guidelines defining the standards for LED. Towards the end, Shukla emphasised that local indigenous solution is important rather than adopting technologies from other countries.

8. Closing Session

The vote of thanks was delivered by Mehta to all dignitaries on the panel and guests. Special note of thanks was given to GERC and Shukla for being extremely supportive since the initiation of the project. The support of GEDA and R N Pandya was also appreciated. Gon Chowdhuri was thanked for sharing insights and learnings of West Bengal with Gujarat.

Mehta stated that this project was envisaged as a pilot study to gauge the awareness level of consumers and built capacity of CSOs but with the support from the government and funding agencies results have been achieved more than expected. He also indicated that there is need for further work in this area; and CUTS in discussion with SSEF would plan for the second phase of the project.

Annexure I

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