



## **Green Growth and Energy Transformation**

### **Solar for Education**

#### **Forum for Policy**

**September 06, 2017, Kolkata**

#### **Draft Report of Proceedings**

### **1. Background:**

In April 2016, CUTS International with the support of Friedrich Ebert Stiftung (FES) commenced a project on Green Growth and Energy Transformation, in short called Grow-GET. The central idea of the project is to formulate a strategy towards energy transformation in the state of West Bengal and Rajasthan, amongst others. The project focus is mainly on renewable energy and the project goal also complements the efforts of National and State governments on increasing the share of renewable energy in the overall energy mix.

During the course of deliberations it became clear that any transformational strategy must encompass at least four key elements – technology, market, state and citizens. Accordingly, the stakeholders who came together under the Grow-GET initiative in the form of a seed community identified a catalytic project on ‘Solar for Education’ with an understanding that not only the above four elements could converge on this project idea but it will also be able to catalyze action on many other fronts. To implement the project further strategic framework was designed and it mainly includes five activities namely scoping visits to identify locations; grassroots forum to assess need, scale and concerns of the grassroots amongst others; finance and job forum to assess ways of channelizing the required finance for implementation; policy forum to take up issues related to finance and technology policies which act as bottlenecks and awareness forum to ensure that there is adequate awareness amongst stakeholders of how best to provide solar solution to the last mile.

This report is based on the discussions and outcomes of the Forum for Policy. Therefore, it may be pertinent to elaborate on some of the key objectives of the Forum for Policy. The following points summarise them in brief:

- To discuss about the Challenges faced by private educational institutions in installing grid connected rooftop solar and identifying appropriate policy recommendations to overcome the challenges;

- To discuss about the Challenges faced by Banks and other Financial Institutions in providing financial assistance for installation of grid connected rooftop solar projects and identifying appropriate policy recommendations to overcome the challenges;
- To discuss about the challenges faced by solar project developers in commissioning grid connected rooftop solar projects and identifying appropriate policy recommendations to overcome the challenges;
- To discuss about the challenges faced by consumers in installing rooftop solar and identifying appropriate policy recommendations to overcome the challenges;

Under the overall theme of “Solar for Education”, the initiative in West Bengal focussed on understanding the underlying issues and challenges in promoting installation of Grid Connected Rooftop Solar PV (GRSPV) among educational institution. This was based on a number of initial interviews with key Government Officials, Seed Community Members, Solar Project Developers and Educational Institutions.

Representative from various leading financial institutions, Regulatory Bodies, Project Developers, Civil Society Organisations, Multilateral Donor Agencies, DISCOMs and Renewable Energy Development Agency, Academia and subject Experts participated at the consultation.

## **2. Key Issues:**

### **2.1. Delays in getting sanction from WBREDA for installation of Grid Connected Rooftop Solar (GRSTPV) under subsidy program**

The process for installation of GRSTPV under the subsidy program of Ministry of New and Renewable Energy (MNRE), Government of India, requires an approval from WBREDA. However, the RESCOs have complained that the getting the approval is a time taking process. To this end, the audience was informed that MNRE is presently trying to simplify the approval process to make the process faster. It was also pointed out that in case an institution of an individual consumer plans to install GRSTPV without subsidy, the DISCOM may be approached directly for getting net meter.

### **2.2. There are overlaps in the process of empanelment of RESCOs**

Under the subsidy program both MNRE and WBREDA separately empanels RESCOs. This often complicates things for institutions or individual consumers who are often not sure of whom to approach. In addition, the Banks follow the list of RESCOs of MNRE. Under these circumstances it would create further confusions regarding which RESCO to choose, in case an institution/individual consumer would want to avail bank loan.

### **2.3. Empanelment of RESCOs by MNRE/SNA discourages innovation, new technologies, new market players**

It was emphasised that the list of RESCOs available at MNRE is an old one and does not take into account the new technologies that are presently available in the market. Further the number of players in the Decentralised Renewable Energy (DRE) section has increased significantly in recent times. Since the list of RESCOs available with

MNRE/SNA is old hence the new players are increasingly finding it difficult to enter the space, since without empanelment the RESCOs will not be able to provide the subsidy to the institutions/consumers.

#### **2.4. Lack of Banking Guidelines to provide loans for installation of GRSTPV to Educational Institutions**

Educational Institutions are Trusts and hence are non-commercial entities. However, they are treated as commercial institutions in the Banking regulations. Thus, most of the parameters used for appraising a project by commercial institutions become redundant for the institutions. Due to this issue banks do not provide loans to the institutions citing non-conformity of parameters. Further, the bank officials often decline providing loans to the educational institutions in the fear of the loan becoming Non-Performing Asset (NPA).

#### **2.5. No clear targets to banks under Priority Sector Lending for providing loans for installation of solar rooftop**

While solar is under priority sector lending but there is no policy mandate to the banks for financing installation of solar rooftop.

#### **2.6. Need for Policy at the State Level for promoting GRSTPV**

West Bengal do not have a GRSTPV Policy which is an imperative for RESCOs to step up their efforts in the state. West Bengal Electricity Regulatory Commission(WBERC) has prepared a draft policy on rooftop solar energy which has been sent to the state power department. The State Power Department will review the same and recommend necessary changes and will send to WBERC again. The commission will finalize the document soon and upload the same on their website. According to the commission, the updated regulation will have more clarity and ease of installing solar technologies (including GRSTPV) in the West Bengal.

#### **2.7. The Net Metering system is often considered as restrictive**

The Net Metering Policy is restrictive and do not encourage consumers to install large capacity GRSTPV. This is because, as per the regulations a consumer can sell only 90% of the electricity consumed from the grid. An institution/consumer will not get paid for the balance 10% of the electricity injected to the grid;

### **3. Probable ways to address the issues:**

Based on the valuable discussion at the Forum for Policy, the following probable ways were proposed by the members of the forum to effectively address the issues:

- It was mentioned that the solar policy of the state need to clearly demarcate roles and responsibilities for major stakeholder categories and also address issues pertaining to ownership and investor's grievance redressal mechanism. It was also suggested that the policy must have a business narrative to promote market

mechanisms required for promoting GRSTPV. This will be crucial for generating interest among the private players or RESCOs which in turn will promote long-term sustainability of the rooftop solar projects;

- According to the State Regulation, a consumer can only install GRSTPV if his/her minimum installed capacity is 5KW. The same needs to be revised to 1KW to encourage even individual consumers to install GRSTPV. This will also be important since an institution might consider starting with a small load and then later on step up capacity if he/she find it profitable;
- Appropriate regulations in the banking system to be introduced to facilitate extension of loan to the educational institutions for installing solar. In this regard, a tripartite agreement could be thought of between the Bank, the Solar Project Developer and an NGO where the Bank will provide financial assistance to the solar project developer and the NGO would be responsible for the recovery of the loan. However, one probable issue with this arrangement, as flagged by the Financial Institutions was that - owing to MNRE guidelines the Banks are mandated to work with only select RESCOs and these RESCOs might not agree to enter into such an agreement;
- The Reserve Bank of India might consider the idea of assigning targets for solar under Priority Sector Lending which will facilitate better monitoring.
- To encourage market driven approach for installing GRSTPV and also to ensure new players to enter the market, it was suggested that the subsidy be provided directly to the institution/consumer. In this way, the institutions/consumers would be able to choose the best RESCO for themselves and install GRSTPV technologies (viz. Polycrystalline solar panels) suited to their needs;
- There is a need to build capacities and generate awareness on various Techno-Commercial issues, Evaluating project proposals among educational institutions on GRSTPV. In addition, it is also important that the Bank Officials needs to be capacitated on various technical issues which will help them better evaluate the project proposals for installation of GRSTPV.

**Annexure – I**

**List of Participants**

<b>SL. NO.</b>	<b>NAME</b>	<b>DESIGNATION &amp; ORGANISATION</b>
1.	AVIJIT GHOSH	CSIR -CENTRAL GLASS & CERAMIC RESEARCH INSTITUTE
2.	CHIRANJIB ROY	BANDHAN BANK Ltd.
3.	D.P. MALLIK	WEST BENGAL ELECTRICITY REGULATORY COMMISSION
4.	DEB.A. MUKHERJEE	BENGAL CHAMBER OF COMMERCE AND INDUSTRY
5.	JUDHAJIT SANYAL	OPTIMA SOLUTIONS
6.	KARUNA SINGH	EARTH DAY NETWORK
7.	KRISHNANDU BHATTACHARJE	RAMPURHAT MUNICIPLITY
8.	MANOJ MAHATA	GIZ
9.	N.P. GIRI	ALLAHABAD BANK
10.	NAVONIL DAS	EARTH DAY NETWORK
11.	PRINAN BANERJEE	TECH SOLAR SOLUTION PVT.LTD.
12.	R.K.DAS	CESC
13.	RATNA CHATTERJEE	RESERVE BANK OF INDIA, KOLKATA
14.	SANJUKTA MUKHERJEE	OPTIMA SOLUTIONS
15.	SATRAJIT SANYAL	OPTIMA SOLUTIONS
16.	SOURAV ROY	POONAM ENERGY PVT. LTD
17.	SUBHASIS NEOGI	SCHOOL OF ENERGY STUDIES.JU
18.	SUJOY ROY	CSIR -CENTRAL GLASS & CERAMIC RESEARCH INSTITUTE
19.	SURYA CHANDAK	PROF. EMERITUS, BIMTECH
20.	UTPAL GOSWAMI	WEST BENGAL RENEWABLE ENERGY DEVELOPMENT AGENCY

**List of Project Team Members**

<b>SL. NO</b>	<b>NAME</b>	<b>ORGANISATION</b>
<b>1.</b>	ARNAB GANGULY	CUTS INTERNATIONAL
<b>2.</b>	BIJAYA ROY	CUTS INTERNATIONAL
<b>3.</b>	DIPANKAR DAS	CUTS INTERNATIONAL
<b>4.</b>	N.K. SINHA	CUTS INTERNATIONAL
<b>5.</b>	PRITHVIRAJ NATH	CUTS INTERNATIONAL
<b>6.</b>	PRIYAM PUROHIT	CUTS INTERNATIONAL
<b>7.</b>	ROSHAN IYER	CUTS INTERNATIONAL
<b>8.</b>	RUPAMOY BHATTACHARYA	CUTS INTERNATIONAL
<b>9.</b>	SAYANDEEP CHATTOPADHYAY	CUTS INTERNATIONAL
<b>10.</b>	SAYANTAN SENGUPTA	CUTS INTERNATIONAL
<b>11.</b>	SUBHANIL BANERJEE	CUTS INTERNATIONAL
<b>12.</b>	SUMANTA BISWAS	CUTS INTERNATIONAL

## ANNEXURE – II

### **Solarfor Education**

### **Forum for Policy**

**Wednesday, 06<sup>th</sup> September, 2017**

**Venue: The Park Plaza (Near Gariahat Pantaloons)**

Lack of access to energy slows down development. An important area to address the development gaps is education and hence reliable provisioning of energy in educational institutions will lay infrastructural foundation for a better learning environment. Unfortunately, owing to various practical reasons it is often not possible to provide reliable power through the conventional grid and hence making it essential to consider the scope of providing reliable power through alternative sources of energy. However, this process of energy transformation can't be steered by state alone or by people or private sector acting discreetly. While on one hand it requires assessing the need, and understanding the level of awareness on policies and technologies at the grassroots, on the other hand it also requires access to Finance. In addition, the entire the discourse on alternative energy sources would remain largely vacuous without understanding the implication that energy transformation can have on livelihood i.e. jobs and entrepreneurship.

CUTS International along with Friedrich-Ebert-Stiftung (FES) has been steering a project on '**Green Growth and Energy Transformation**' in states of West Bengal, and Rajasthan. The core aim of the project is to create an implementable strategy / proposal for energy transformation (from fossil to non- fossil) at state-level so that sustainable growth can be guaranteed and states could also meet their targets on renewable energy.

To bring this transformative change, '**Solar for Education**' has been identified as a facilitator for last mile energy access. It aims at making available solar energy solutions not just to schools but even to households such that an extended learning environment is provided to children at homes. Through this, the larger community also gets benefited.

Our ground research also informs us that there are bottlenecks or issues that restrict the uptake of solar solutions at the grassroots. Finding solutions to these bottlenecks would then make solar energy solutions a viable option for technology providers, financiers and the community. The strategy adopted by us is firstly to facilitate forums to connect demand to supply and to prepare a project design that would provide solutions for challenges or bottlenecks identified.

The **Forum for Policy** aims at facilitating a dialogue and understanding the policy bottlenecks pertaining to access to finance and technology. The ultimate objective would be to come up with policy prescriptions to overcome the challenges.

### Agenda

10:30– 11:00	<b>Registration and Tea</b>
11:00-11:10	<b>Welcome Address by CUTS International</b>
11:10 – 12:00	<p><b>Interactive session with stakeholders</b></p> <p><i>The session will have interactive discussion with diverse stakeholders to assimilate the various practical bottlenecks to be addressed to popularize solar solutions among the educational institutions. The participants will include representatives the Government Departments, Regulatory Agencies, solar project developers, Financial Institutions, NGOs, and media, amongst others.</i></p>
12:00 – 12:15	<i>Tea Break</i>
12:15 – 13:00	<p><b>Conclusion and Way Forward</b></p> <ul style="list-style-type: none"> <li>✓ <i>Presenting the key highlights of the forum</i></li> <li>✓ <i>Discussing the strategy to take forward the initiative.</i></li> <li>✓ <i>Discussing the action points for the future forums</i></li> </ul>
13:00– 14:00	<b>Lunch and Departure</b>