



# Newsletter

## National Solar Help Desk

The National Solar Help Desk (NSHD) is an undertaking of Sustainable and Renewable Energy Development Authority (SREDA), to support the proliferation of primarily Solar Rooftop programme under net metering. Initial establishment of NSHD is being supported by the Renewable Energy and Energy Efficiency Programme (REEEP II) implemented by GIZ Bangladesh. SREDA envisions to enlarge the scope of NSHD to cover all renewable energy solutions in the future.

### TOT training on “Design, Installation and Inspection of Rooftop Solar Project under NEM”

Electricity distribution utilities in Bangladesh are playing pivotal role for implementation of the Rooftop Solar Projects as they provide approval for installation, are in direct contact with end user, manage the distribution network and also have billing interface with rooftop owner. So, utility engineers should have proper knowledge of implementing Rooftop Solar Projects. Keeping that in mind, series of virtual half day training on “Net Metering Guideline-2018 and SIP Grid Integration Guideline-2020” for utility engineers were organized by SREDA in collaboration with REEEP II. During the feedback session of those trainings, they expressed their satisfaction on the training contents and requested to arrange more interactive sessions on technical design, equipment specification and standards for at least few of the engineers so each



*TOT Didactical Training*

distribution utility could develop own expert pool with subsequent trainings in future. Based on the feedback of those trainings, in cooperation of GIZ REEEP II, SREDA arranged Training of Trainers (ToT) sessions for the engineers of the distribution utilities. Based on the scores of participants of net metering training, candidates of ToT training were selected. Among them, 40 candidates from 6 utilities were nominated from their respective organizations.

The ToT programme was divided into two sessions; didactical and technical session. The essence of the didactical session was to strengthen participants’ ability to apply new concepts, techniques and methods to the future training they take by using practical and action-oriented exercises. 20 engineers



*Methodological approach of TOT Didactical Training*



*TOT Detailed Technical Training*

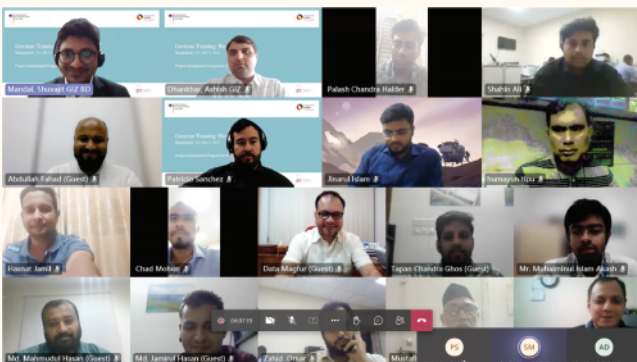
from distribution utilities have been trained in two batches on 8 to 10 December and 12 to 14 December 2021 on didactical trainings. Those training sessions were conducted by the international experts from C3 training unit of GFA Consulting Group, GmbH, Germany, the implementing partner of REEEP II. C3 unit trainers use variety of methodological approach to maintain interest and address different learner types. This includes: action-oriented participative learning, structured learning exercises, including simulations, role-plays, case studies, group work, and lecture / guided discussion, and brainstorming, Communication exercises (energizers), Daily reporting on the previous day's results, Evaluation and monitoring tools, Participants' manual / handouts, including supplementary background reference materials etc.

After successful completion of the didactical parts, 25 participants were selected for the detail technical training in January 2022 based on their performance, interest to be developed as trainers etc. during didactic session. The detail technical trainings were conducted on 09 to 14 January 2022 and 23 to 25 January 2022 on "Design, Installation and Inspection of Rooftop Solar Project under NEM" the content of the technical training included Net Metering Guideline-2018, Fundamental Principle of Solar Module & Inverter, PV System Design and Engineering, Installation & Inspection Guideline, Electricity Grid Code of Bangladesh, Protection System, Radiation Measurement Device, Detail Financial Analysis of NEM rooftop solar, Billing Format, Documentation, Commissioning & Testing, Operation and Maintenance etc. As part of the practical knowledge, trainees also visited a Net Metered Rooftop Solar Project at K A Design Ltd, Boro Beraid, Badda, Dhaka with the capacity of 428.22 kWp on 14 January 2022.



*Site Visit at K A Design Ltd, Boro Beraid, Badda, Dhaka*

## Training on Solar PV Technologies and Engineering Services



*Few participants of the training on Solar PV Technologies and Engineering Services*

The Project Development Programme (PDP) of GIZ runs as part of the German Energy Solutions Initiative on behalf of the German Federal Ministry for Economic Affairs and Energy (BMWi). The German Energy Solutions Initiative helps companies of the energy sector in the fields of renewable energy, energy efficiency, smart grids and storage technologies to enter foreign markets. As part of that initiative, PDP organized German training week on solar PV technologies and engineering services last



year. With great response from the participants and stakeholders of earlier initiatives, PDP in collaboration with the Bangladesh Solar and Renewable Energy Association (BSREA) and REEEP II of GIZ organized an Online German Training Week Solar (GTWS) from 1st – 4th November 2021 for EPCs and other stakeholders working on Renewable Energy sector. The objective of the training was to focus on technical capabilities aims to support Renewable Energy stakeholders of Bangladesh to benefit from the German expertise in solar PV technologies and engineering services by providing a platform for knowhow transfer as well as facilitating business partnerships between them. Total 116 participants from different EPCs and other RE stakeholders were invited to participate in the training courses. The training sessions were conducted by Mr. Patricio Sanchez, Trainer, Project Manager, PI Berlin and Mr. Emrul Hasan, Project Engineer, RAACH SOLAR. They covered the contents of PV System Design & Installation, PV System Installation & Mounting Structure, Simulation Software and Solar Irradiation measurement, PV System Operation & Maintenance etc. After active participation from participants, certificates were provided by email to the participants.

## Workshop on “Net Metered Rooftop Solar in Textile Industry” at BTMA



*Workshop on "Net Metered Rooftop Solar in Textile Industry at BTMA "*

Following the desire generation of 40% electricity from renewable energy source, Government of Bangladesh (GoB) is organizing awareness programmes on Net Metered Rooftop Solar system. Due to scarcity of land, Bangladesh Government is encouraging consumers to install Net metered Rooftop solar system on the empty roof of the industrial, commercial & residential buildings. In this regard, an awareness workshop was organized in 18 November, 2021 by Bangladesh Textile Mills Association (BTMA) in collaboration with SREDA and REEEP II of GIZ Bangladesh for the member industries. The main objective of the workshop is to aware the owners and management of industries of BTMA for the implementation of net metered rooftop solar projects so that they can have a clear understanding of Rooftop Solar projects along with benefits of investment. Parallely this awareness programme will help them to get in touch with proper authority for implementation, application and

approval of Rooftop Solar Projects. Financial institutions and banks should be available for accessing the funding of the rooftop solar project. The workshop was divided into two sessions; inauguration session and keynote presentation session. Dr. Tawfiq-e-Elahi Chowdhury, BB, Adviser (Minister) to the Honorable Prime Minister, Power, Energy and Mineral Resources Affairs attended the workshop as Chief Guest, Mr. Mohammad Alauddin, Chairman (Additional Secretary), SREDA attended as the Special Guests. Mr. Mohammad Ali Khokon, President, BTMA chaired the workshop. Also, representatives from different member industries (mostly engineers) and 10 directors of BTMA participated in the workshop as well. Mr. Mohammad Ali Khokon, President, BTMA informed that the industries consist of huge empty roof space which ranges from 1,00,000-10,00,000 square feet. So, there is a huge opportunity for implementing rooftop solar for BTMA member industries and thus meet

part of their electricity demand by producing from their own systems. In concluding remarks Mr. Mohammad Alauddin, Chairman (Additional Secretary), SREDA, opined that solar energy is the most promising among renewable energy in Bangladesh. But only disadvantage is that it needs 2.5 to 3 acres land for installing 1 MWp capacity power plant. That's why the government introduced the Rooftop Solar under Net Metering Guidelines to encourage industrial, commercial and residential building owners under which the industry owners can sell their surplus solar energy to the grid and adjust their monthly bills. If the factory owners set up the system on their own, the tariff would be less than half of the existing rate for the industrial consumers. At the same time, they can contribute to Greenhouse Gas (GHG) emissions reduction which could be a recognition for them from their buyers eventually. In

his speech as Chief guest, Dr. Tawfiq-e-Elahi Chowdhury, BB, Adviser (Minister) to the Honourable Prime Minister, Power, Energy and Mineral Resources Affairs welcomed president of BTMA for taking this initiative so that rooftop solar become more acceptable to their members. He mentioned that as per capita CO<sub>2</sub> emission of Bangladesh is much lower than Europe and America, Bangladesh is not liable for CO<sub>2</sub> emission. But Bangladesh wants to be an example for other countries for GHG mitigation. He also advised BTMA members for improving energy efficiency in their factories by introducing Co-generation and tri generation. He requested SREDA to support BTMA for energy audit. Thus, this awareness programme made a positive impact among the stakeholders to make Net Metered Rooftop Solar a success as well as fulfill the renewable energy target.

## Workshop on Net Metered Rooftop Solar at Khulna University

Government of Bangladesh adopted the Net Metering guideline in July 2018, allowing any 3-phase consumer to use their empty space, rooftops of the industries, commercial and residential buildings for grid-connected renewable energy. Khulna University (KU) is the hub for higher education in Khulna District. A number of academicians, local govt officials, local influencers are connected to KU in various ways. A lot of small-scale industries, educational institutes, local govt. offices are there. Rooftops and free spaces of those buildings can be utilized to generate green energy from rooftop solar system. To make relevant stakeholders aware of the technical aspects as well as the environmental impact of rooftop solar system, an awareness workshop was



*Workshop on Net Metered Rooftop Solar at Khulna University*

organized by Khulna University (KU) in collaboration with SREDA and REEEP II of GIZ Bangladesh on 19 December 2021. The main objective of the workshop was to aware the owners and management of industrial, commercial and residential buildings, utility officers, other government officials and academicians to have a clear understanding of technical and financial aspects of Rooftop Solar projects along with the benefits of investment. Representatives from Khulna University, Khulna Water Supply and Sewerage Authority, West Zone Power Distribution Company Ltd. (WZPDCL), Khulna University of Engineering & Technology, Khulna Development Authority, Khulna City Corporation, Islamic Foundation, Khulna DC office, electronic and print media were present in the workshop. Mr. Mohammad Alauddin, Chairman, (Additional Secretary), SREDA attended the workshop as





*Feasibility study report of 75 kW capacity rooftop solar system was handed over to honorable VC*

Chief Guest, Mr. Anis Mahmood, Member (Additional Secretary), SREDA was the Guest of Honor, Professor Dr. Mosummath Hosna Ara, Pro VC, Khulna University, Mr. Al Mudabbir Bin Anam, Programme Coordinator, Renewable Energy and Energy Efficiency Programme (REEEP) – II, GIZ Bangladesh attended as the Special Guests. Professor Dr. Mahmood Hossain, Vice-Chancellor, Khulna University chaired the workshop.

Mr. Mohammad Golam Sarware Kainat, Member (Joint Secretary), SREDA delivered his keynote presentation “Net Metered Rooftop Solar” including basic concept of Net Metering and financial aspects of it. Mr. Md. Rashedul Alam, Assistant Director (Solar), SREDA delivered his presentation including technical aspects of “Net Metered Rooftop Solar” Mr. Reaz Chowdhury, Team Leader, GFA on behalf of REEEP II moderated the workshop.

Chief Guest of the workshop, Chairman SREDA in his speech mentioned that Bangladesh is progressing in every sector day by day. People are getting aware of RE more and more and in COP 26, Bangladesh has expressed their interest to contribute by generating electricity up to 40% from RE sources. SREDA is

working to integrate more RE sources into the national grid. A site inspection of Khulna University rooftop was completed by representative team from SREDA earlier. At the workshop a feasibility study report of 75 kW rooftop solar system for KU was handed over to honorable VC of KU by chairman SREDA. In his Closing remarks, Honorable VC of KU, Professor Dr. Mahmood Hossain expressed his gratitude to SREDA and GIZ for organizing such a workshop. He also informed the workshop that it would be possible to install 300kW rooftop solar system. Afterward, a Minutes of Understanding was signed among SREDA, KU and WZPDCL for implementing 75 kW capacity model rooftop solar project.

### **Feasibility study of 75 KW capacity Rooftop Solar System at Khulna University**

Khulna university (KU) has 29 disciplines under six schools and two institutes. There should be ample opportunity to set up rooftop PV systems there. The university authority wanted to implement rooftop solar systems on the roof of the guest house and administrative building. In this regard, authority of KU requested SREDA to conduct a feasibility of rooftop solar system on the roof of two those buildings. In response to that request, a team comprising Mr. M Reaz Chowdhury, Team Leader, GFA Consulting Group, implementing partner of component-3 of REEEP II GIZ and Dr. Md. Ziaur Rahman Khan, Professor, BUET on behalf of SREDA visited and inspected the sites of KU on 17 November 2021. The officials of the KU were present during the visit. Accordingly, a feasibility study report of 75kW capacity rooftop solar system was prepared. The report was handed over to KU during the awareness workshop which was held on 19 December 2021 at KU.



*REEEP II team is inspecting the roof of Guest House of KU*

## Visit to Net Metered Rooftop Solar and Solar Power Plant

As part of monitoring of installed solar projects, a team comprising of Mr. Md. Rashedul Alam, Assistant Director (Solar), SREDA and Mr. Rayed Md Muhaymin Hasan, Executive of National Solar Help Desk visited 50 MW capacity solar power plant situated at Sutiakhali, Mymensingh Sadar and 300 kW capacity Net Metered Rooftop Solar System under OPEX model at Valuka, Mymensingh on 13th October, 2021. The team also visited another solar power plant of 3 MW capacity on 14th October 2021 located at Jamalpur. Solar power generation from those plants were satisfactory. The team prepared a technical report on those plants.



Site Visit at 50 MW Solar Power Plant, Sutiakhali, Mymensingh



Visit to 300 kW Capacity Net Metered Rooftop Solar at the roof of DPQSL, Mymensingh



Visit to 3 MW solar power plant at Jamalpur

## Assessment of Potential Rooftop Solar Sites

### Assessment of Rooftop at Agricultural Training Institute:

Public and private organizations are gradually becoming interested to install rooftop solar system at their premises. As a result, several public institutes requested SREDA to assess their premises for the feasibility of installing rooftop solar.

Agriculture Training Institute at Sher-E-Bangla Nagar, Dhaka is one of them. In response to the request on 08 October 2021, a team led by Mr. Mohammad Alauddin, Chairman (Additional Secretary), SREDA visited the site. Other team members were Mr. Mohammad Golam Sarware E Kainat, Member (Renewable Energy), SREDA, Mr. Md. Rashedul Alam, Assistant Director



Visit at Agricultural Training Institute

(Solar), SREDA, Mr. M Reaz Chowdhury, Team Leader, RE Component, REEEP II, GIZ and Mr. Rayed Hasan, Executive, National Solar Help Desk. The team prepared a site assessment report and submitted to the authority. As per assessment, currently 12 kWp rooftop solar can be installed on the rooftop.





*Visit at Bangladesh Bureau of Statistics, Sher-E-Bangla Nagar, Dhaka*

## Inspection of Solar System at Bangladesh Bureau of Statistics

A 200 kWp capacity solar system was implemented by Bangladesh Bureau of Statistics (BBS), Dhaka on the roof of their building. The system was installed by an EPC, Ingen Technology Limited. To know the current situation of solar energy generation and system performance, BBS authority requested SREDA to inspect the solar system. Accordingly, a team from SREDA visited the rooftop of BBS on 29 November 2021. The team prepared an inspection report including recommendations and submitted to the BBS authority.

## Solar System Activation at BARD, Cumilla

A 6.24 kWp capacity solar system was installed at BARD premise in 2008. The system was inactive for a long time. In this situation, Director General of BARD requested SREDA to take necessary steps to reactivate the solar system. In response, a team comprising Mr. Mohammad Alauddin, Chairman (Additional Secretary), SREDA, Dr. Md. Ziaur Rahman Khan, Professor, BUET, Mr. Al Mudabbir Bin Anam, Programme Coordinator, REEEP - II and M Reaz Chowdhury, Team Leader, GFA Consulting Group, implementing partner of component-3 of REEEP II inspected the 6.24 kWp capacity solar system on 15 October 2021. Subsequently, BARD arranged an awareness workshop on 'Scaling up Rooftop Solar under Net Metering'. Around 50 participants from different Government and Private Organizations attended in the awareness workshop. Dr. Md. Ziaur Rahman Khan, Professor, BUET delivered his key note presentation on behalf of REEEP II and SREDA.



*Site Visit at Bangladesh Academy for Rural Development*

Dr. Khan also prepared an assessment report on present condition & upgradation plan of existing off-grid solar system. The report has been submitted to BARD authority for further initiative. Filament Engineering Ltd. was assigned on behalf of REEEP II to activate the existing solar system.

## Pre-feasibility study of Rooftop Solar and awareness workshop at Feni DC Office

DC office of Feni showed interest to install a rooftop model solar project at their premises and requested SREDA to conduct feasibility study for installing a rooftop solar system at the roof of the office. Accordingly, SREDA prepared a pre-feasibility report as per information provided by DC office. Subsequently, Feni DC office arranged an awareness workshop on 'Scaling up Rooftop Solar under Net Metering' on 17 October 2022. Around 50 participants from different Government and Private offices attended in the awareness programme. Dr. Md. Ziaur Rahman Khan, Professor, BUET delivered his key note presentation in the workshop on behalf of REEEP II and SREDA. Mr. Mohammad Alauddin, Chairman (Additional Secretary), SREDA, Mr. Al Mudabbir Bin Anam, Programme Coordinator, Renewable Energy and Energy Efficiency Programme (REEEP) – II and Mr. M Reaz Chowdhury, Team Leader, GFA Consulting Group, implementing partner of component-3 of REEEP II also participated in the interactive session.



*Inspection of the Rooftop of Feni DC Office*

## Contact Details of National Solar Help Desk



Implemented by:  
**giz** Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

### National Solar Help Desk

SREDA Office, 9th Floor  
IEB Building, Ramna, Dhaka-1000

Hotline: 01550777777, 01550711711  
Email: [nshd@sreda.gov.bd](mailto:nshd@sreda.gov.bd)  
Website: <https://shd.sreda.gov.bd>

Appointment: <http://shdappointment.sreda.gov.bd>

Published on behalf of SREDA by GFA Consulting Group, the implementing partner of Renewable Energy Component of Renewable Energy and Energy Efficiency Programme (REEEP II)

A project assisted by the German Government via the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.



Responsibility of the Content : GFA Consulting Group  
Author : Farzana Amin, Shadukul Talukder & Reaz Chowdhury, GFA Consulting Group  
Photo Sources : GFA Consulting Group  
Design and Layout : ADFRAME (printing and publication)  
Editing : Ananya Rubayat, GIZ Bangladesh For more information on REEEP II,  
Contact : Al Mudabbir Bin Anam, Programme Coordinator, REEEP II  
Email : [mudabbir.anam@giz.de](mailto:mudabbir.anam@giz.de)  
@Bangladesh 2021