Subject: Invitation for 6th Batch of Online Training program for bankers of ISA Member Countries under 'ISAs Banking Solar Initiative' to train bankers to finance solar project

Excellency

I would like to express my deep gratitude to the National Focal Point of ISA Member Countries for the longstanding support in fully operationalizing the International Solar Alliance (ISA). At the outset, we would like to reiterate ISA's strong commitment to supporting its Member countries facing severe health and economic impacts due to the COVID crisis.

With a vision for mobilizing USD 1000 billion till 2030, ISA Secretariat has initiated capacity building of all possible stakeholders which will play a vital role in materializing this vision. One such stakeholder is financial institutions such as local banks that work as a catalyst in the solar value chain. ISA has come up with a unique initiative – **Banking Solar Initiative** – to train bankers to finance solar projects for training the bankers.

The objective of this initiative is to bridge the knowledge gap and develop specific skills for enabling Bankers and Finance professionals to assess techno-commercial feasibility and financial viability of setting up solar PV systems as well as analyze various financial instruments, government schemes and policies, tools, business models and risk mitigation mechanisms that are being adopted and deployed by the banks for RE and EE projects. The training program will include an overview of concepts, components and safety with a specific focus on technical standards of rooftop solar system/ project, micro grid, SPV pumps and different business models followed in the solar market.

5 Batches of Online Training Programme have been succesfully completed in which __238___ Nos. of Bankers/Officers from relevant Ministries/Organisation/Departments from __21__ ISA Member Countries have been benefitted. Now the 6th Batch of Online Training Programme is proposed to schedule from 14th December 2020, Monday to 18th December 2020, Friday. Each session will be of 1.5 hours duration with a total of 15 training hours. The medium of the training program will be in ENGLISH language and will be carried out through virtual mode.

We request you to kindly nominate the officials of banks, financial institutions and relevant officials from Minsitries/Organzations/Departments from your country who desire to participate in the proposed training program. **The program is free of cost for ISA sponsored candidates and approved by NFP for up to 15 bankers per Member Country**. The tentative agenda of the

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training program and the format for nominating the bank officials is attached herewith in the annexure. The tentative agenda for the training program may be shared with the prospective trainee officials. For any questions/ clarifications, please reach out to me.

We are thankful to IREDA and Skill Council for Green Jobs to have financed this initiative for training 500 bankers from ISA Member Countries. Each participant will also receive a certificate co-issued by ISA.

We are sure that bringing all the relevant actors on the single platform will create a link with each other for desired output of creating robust ecosytem conducive for solar deployment. Our collaborative efforts will strengthen ISA's efforts to support Member Countries to achieve the goal of universal energy access by 2030 and effectively address climate change.

The ISA Secretariat avails itself of this opportunity to renew to the National Focal Points of ISA Member Countries the assurances of its highest consideration.

Yours Sincerely,
Amar Jit Singh Soran
Deputy Director
International Solar Alliance

To,

National Focal Points,
ISA Member Countries

Cc to:
Contact Points
ISA Member Countries

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Annexure 1: Tentative Agenda for the Training Program

Duration: 5 days **Mode of training: Online**

Technical section: 1 hour and 30 minutes each

Sessions will be delivered by Master Trainer / Certified Trainer of Skill Council for Green Jobs

(KINDLY NOTE THAT THE TIMING MENTIONED IS IN INDIAN STATNDARD TIME (IST) ZONE. REQUEST TO CHECK LOCAL TIME OF YOUR COUNTRY ACCORDINGLY)

Tentative Session Date and Time (in IST)	Session Title	Topics to be covered
14th Dec 2020, Monday 16.00 Hours - 17.30 Hours	**Session I:** **Why Solar PV is best alternative for conventional power generation**	• Difference between fuel-based and technology-based power generation • Global Installed capacity by source & contribution in electrical energy • Coal power vs. SPV power generation • Electricity Cost per unit Vs. CO2 emission • New strategy for energy & sustainable development scenario • Socio economic impact of RE deployment • Solar PV Energy tariff trends • Advantages & limitation of SPV Plants
14th Dec 2020, Monday 18.00 Hours - 19.30 Hours	**Session II: Basics of Solar PV technology and various components.**	• Solar PV plant classification • The Photovoltaic Effect & working of solar cell end module • Basic Concept of Solar PV plant generation & its dependency • 1st, 2nd, 3rd, and 4th generation solar plants • Working of OFF grid and on grid plants • Compression between off grid & On grid plants

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		• Components • Solar panels • Mounting structures • Inverters • BOS
15th Dec 2020, Tuesday *16.00 Hours -* *17.30 Hours*	**Session III:** **Metering arrangements in grid connected solar systems**	• Zero, Partial or controlled export of electricity • Net metering, • Virtual net metering • Gross metering • Renewable Purchase Obligation (RPO) & REC (RE Certificates)
15th Dec 2020, Tuesday *18.00 Hours -* *19.30 Hours*	**Session IV:** **Solar PV Pumps and Micro grids**	• SPV pumping systems • Challenges in conventional solar irrigation pumps • World's first solar pump cooperative: DUNDI • Introduction to KUSUM scheme in India • Different Types of micro grid • Macro problems of micro grids • Small business case study of Kenya (Video)
16th Dec 2020, Wednesday 16.00 Hours - 17.30 Hours	**Session V** **Site assessment for rooftop solar PV system, micro grids and SPV pumps**	• Basics of solar resource assessment • Variation in irradiation & plant out put • Tilt angle, orientation and area requirement for solar plants • Irradiation and temperature effect on production of plant • Site assessment (physical & electrical) • Effect of shadow on plant life and o/p

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Commercial section

Tentative Session Date and Time (in IST)	Session Title	Topics to be covered
16th Dec 2020, Wednesday *18.00 Hours - 19.30 Hours*	**Session VI:** **Energy generation analysis & Performance Estimation of solar**	• Factors affecting Plant Output Grid tied, solar pups & micro grid • Loss assessment & energy yield analysis • Energy generation estimation with PV watt calculators • Major factors in Energy production uncertainty • Energy yield probability forecast P50/75/90 analysis • Potential Impact of P50 and P90 • Performance indicators of solar plants CUF, PR, specific yield • Sensitivity analysis of solar plants
17th Dec 2020, Thursday *16.00 Hours - 17.30 Hours*	**Session VII:** **Business Models & Contracting Framework**	• Different Stake holders and their responsibility • Customer side Solar Implementation B models • Capex, Opex & Roof top leasing • Enablers of Financing in India & in global market • Different contracts & agreements at different stages of work • Steps for Financing a Solar Project
17th Nov 2020, Thursday *18.00 Hours - 19.30 Hours*	**Session VIII:** **Project Costing and financial analysis**	• Fixed & variable Component of project cost • Variation on cost due to size of the plant & Cost breaks • Project Variations – Investment Models • Factors affecting system capital costs of project • Project organogram of SPV projects • Bankability – Technical, Financial & Regulatory Factors • Levelized Cost of Energy in Solar PV

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18th Dec 2020, Friday 16.00 Hours - 17.30 Hours	**Session IX:** **Evaluation of Detailed Project Report for a Solar PV Rooftop System**	• Reading & interpretation of sample DPR for solar project • Financial assessment with the help of Excel sheet
18th Dec 2020, Friday *18.00 Hours - 19.30 Hours*	**Session X** **Associated Risks identification and mitigation techniques for solar systems**	• Different risks in solar business and its mitigation • Cost priority number & risk priority number • Failure probability during the different phases • Third party inspection & plant auditing • IMP factors to minimize the Risk

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Annexure 2: Format for Nominating the Bank Officials for 6th Batch of the ISA Online Training Program for Bankers of ISA Member Countries

"Solar Proposal Evaluation Specialist"

NAME OF ISA MEMBER COUNTRY: _____

S.N.	NAME OF THE BANK	NAME OF THE BANK OFFICIAL	DESIGNATION	EMAIL	CONTACT NUMBER

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