



Subject: 9th batch of the Online Training program for Bankers of ISA 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 Points of ISA 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.

The proposed schedule of the exclusive online training program for the Bankers of ISA Countries is **19-04-2021 to 23-04-2021**. 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. The interpretation in French/Spanish shall be provided based on the nomination of the Bankers from French/Spanish speaking countries. If you desire to send nominations then kindly send latest by **16th April 2021**. **The program is free of cost for ISA sponsored candidates who are approved by the respective National Focal Points**. The tentative agenda of the training program and the format for nominating the additional 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 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 ecosystem conducive for solar deployment. Our collaborative efforts will strengthen ISA's efforts to support Member Countries of ISA, 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 ISA Countries the assurances of its highest consideration.

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

To,

National Focal Points of ISA Countries

Cc to:

Contact Points of ISA Countries



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

Tentative Session Date and Time (in IST)	Session Title	Topics to be covered
19-04- 2021 Monday 18.00 Hours to 19.30 Hours	Session I: Why Solar PV is best alternative for conventional power generation	<ul style="list-style-type: none"> • 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
19-04- 2021 Monday 20.00 Hours to 21.30 Hours	Session II: Basics of Solar PV technology and various components.	<ul style="list-style-type: none"> • 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 • Comparison between off grid & On grid plants • Components • Solar panels

		<ul style="list-style-type: none"> • Mounting structures • Inverters • BOS
20-04-21 Tuesday 18.00 Hours to 19.30 Hours	Session III: Metering arrangements in grid connected solar systems	<ul style="list-style-type: none"> • Zero, Partial or controlled export of electricity • Net metering, • Virtual net metering • Gross metering • Renewable Purchase Obligation (RPO) & REC (RE Certificates)
20-04-2021 Tuesday 20.00 Hours to 21.30 Hours	Session IV: Solar PV Pumps and Micro grids	<ul style="list-style-type: none"> • 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)
21-04-2021 Wednesday 16.00 Hours to 17.30 Hours	Session V Site assessment for rooftop solar PV system, micro grids and SPV pumps	<ul style="list-style-type: none"> • 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

Commercial section

Tentative Session Date and Time (in IST)	Session Title	Topics to be covered
21-04 2021 Wednesday 20.00 Hours to 21.30 Hours	Session VI: Energy generation analysis & Performance Estimation of solar	<ul style="list-style-type: none"> • 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
22-04-2021 Thursday 18.00 Hours to 19.30 Hours	Session VII: Business Models & Contracting Framework	<ul style="list-style-type: none"> • 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
22-04- 2021 Thursday 20.00 Hours to 21.30 Hours	Session VIII: Project Costing and financial analysis	<ul style="list-style-type: none"> • 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

		<ul style="list-style-type: none"> • Levelized Cost of Energy in Solar PV
<p>23-04- 2021 Friday 18.00 Hours to 19.30 Hours</p>	<p>Session IX: Evaluation of Detailed Project Report for a Solar PV Rooftop System</p>	<ul style="list-style-type: none"> • Reading & interpretation of sample DPR for solar project • Financial assessment with the help of Excel sheet
<p>23-04- 2021 Friday 20.00 Hours to 21-30 Hours</p>	<p>Session X Associated Risks identification and mitigation techniques for solar systems</p>	<ul style="list-style-type: none"> • 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



Annexure 2: Format for Nominating the Bank Officials for the 9th batch of ISA’s Online Training Program for Bankers of _____ (Name of the ISA Country)

“Solar Proposal Evaluation Specialist”

NAME OF ISA MEMBER COUNTRY: _____ (Name of the Country)

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

