

INTERNATIONAL SOLAR ALLIANCE (ISA)

PROMOTING INVESTMENT IN RENEWABLE ENERGY

P.K.PUJARI

Adviser, International Solar Alliance (ISA)

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GLOBAL RENEWABLE ENERGY SCENARIO 2016

- Generating capacity was up by 9% to more than 2,016 GW over 2015 -
Solar PV contributing 47% and Wind 34%
- Contributed 30% of global power generating capacity and 24.5% of demand
- At least 24 countries have 1 GW or more of capacity and 114 countries have more than 10 MW
- Utility-scale solar PV auction prices are falling around the world
- Solar heating and cooling technologies sold in at least 127 countries
- Demand is expanding rapidly for off-grid solar PV

INTERNATIONAL SOLAR ALLIANCE (ISA)

- Intergovernmental Treaty Based Organization under Article 102 of UN Charter
- Launched on 30th November 2015 through adoption of Paris Declaration on the side of CoP21 Paris
- Objectives:
 - Undertake joint efforts, harmonizing and aggregating demand for solar finance, technologies, innovation, R&D and capacity building
 - Mobilize US\$ 1000 billion of investment needed by 2030 for deployment of 1000 GW of solar energy
 - Facilitate member countries to collectively address key common challenges to scaling up of solar energy in line with their needs

INTERNATIONAL SOLAR ALLIANCE (ISA)

➤ Key Common Challenges

- Availability of Long-term and Low-cost Finance
- Identification of Technological solution and Technology Procurement
- Capacity Building and Access to Knowledge
- Coordinating R&D efforts
- Project Implementation

➤ Address Challenges

- To bring quality, reliable and affordable solar energy within the reach of all
- Facilitate achieving Sustainable Development Goals(SDGs) & objectives of Paris Climate Agreement

PROGRAMS LAUNCHED BY ISA

Scaling Solar Applications for Agriculture Use

- Solar applications can play an important role in improving productivity and income of farmers, thereby improving quality of life in rural areas
- 13 countries participating
(Bangladesh, Ethiopia, France, India, Nigeria, Mauritius, Seychelles, Senegal, Sri Lanka, Guinea-Bissau, Rwanda & Uganda)
- Demand Aggregation
- Harmonizing tendering, documentation and processes by developing common standard, protocol for testing, monitoring, verification & certification
- Exploratory Price Discovery Bid (for 500,000 solar pumps in first stage)
- Installation, Operation and Maintenance
- Training of Solar Mechanics

PROGRAMS LAUNCHED BY ISA

Scaling Solar Mini Grids

- Cater to energy needs in identified areas with limited or unreliable or no grid(s) and in island member States having abundant potential to tap solar energy
- Designing and deploying successful models of mini grids
- Demand Aggregation
- Identify suitable investors and financial institutions
- Adopt common methodologies, policies and procedures based on international best practices
- Call for Expression of Interest to identify market operators with capacity to construct and operate
- Facilitate local capacity building to design, implement and monitor mini grids
- Facilitate capacity building of local Financial Institutions to finance mini grids
- Facilitate strengthening legal and regulatory eco-systems

PROGRAMS LAUNCHED BY ISA

Affordable Finance at Scale(1)

- Make projects bankable by de-risking investments and reduce cost of financing by
 - adopting common set of contractual documentation and practices (in collaboration with IRENA)
 - enhancing credit commitments by Banks and FIs
 - establishing International Credit Enhancement & Risk Mitigation Mechanism

- 17 countries participating
(Argentina, Bangladesh, Burkina – Faso, Chad , Ethiopia, France, India, Ivory Coast, Mali, Namibia, Niger, Nigeria, Seychelles, Sri Lanka, Sénégal, Uganda and Yemen)

PROGRAMS LAUNCHED BY ISA

Affordable Finance at Scale(2) – Standardization of Documents

- Standardization of Transaction Documents (in collaboration with IRENA)
 - Power Purchase Agreements (PPA)
 - Request for Proposal (RfP)
 - O&M Contract Documents
 - Trustee Agreements
 - Trust & Retention Account (TRA)

- Conducive Policy Regime
 - Long-term Policies
 - Regulatory Support

PROGRAMS LAUNCHED BY ISA

Affordable Finance at Scale(3) – Enhance Credit Commitments

- Credit line of US\$ 2 billion operated by India in Africa has been earmarked for solar and solar related projects at ISA's request

- World Bank as Financial partner of ISA has sanctioned US \$ 500,000

- Financial partnership with multi-lateral banks & FIs urging
 - earmarking a % of credit for solar sector
 - raising loans and green bonds in local currency

- Partnership entered with EIB & EBRD & under finalization with ADB & AIIB
- ADB has agreed to explore financing of US \$ 500 million for ISA programs

PROGRAMS LAUNCHED BY ISA

Affordable Finance at Scale(4) – Risk Mitigation Mechanism

- ‘Credit Enhancement Mechanism’ and ‘First Loss Facility’ developed by IREDA for India (4 million Euros grant from KfW) can be replicated

- Establishing a Global Risk Mitigation Fund (GRMF) of US \$ 300 billion over 10 years for creation of Innovative Financial Mechanisms such as:
 - Credit Risk Guarantee Fund
 - First Loss Facility
 - Payment Security Mechanism
 - Mechanism to reduce cost of hedging

- Objective is to leverage US\$ 3000billion investment in solar energy program

PROGRAMS LAUNCHED BY ISA

Affordable Finance at Scale(5) – Risk Mitigation Mechanism

- GRMF will be set up with likely contributions from WB, ODA-Countries & GCF
- GRMF will be 10 Regional Funds (ISA Series 1 to 10)
- Study (by TWI, WB, TCX, CEEW and CII) commissioned to structure a Common Risk Mitigation Mechanism (CRMM) for ISA-1 Fund (Paris Fund)

PROGRAMS LAUNCHED BY ISA

Capacity Building – Awareness & Distance Learning Program

- Awareness for Farmers & Certification Courses for youth for Installation, Operation and Maintenance of Solar Pumps in African countries
- Utilizes PAN-AFRICAN e-NETWORK Project of Government of India – Programs to be beamed to African countries through RASCOM satellite
- 5 Regional University Centers, 48 Learning Centers and 43 VVIP Nodes of Africa are connected
- Awareness program contains 3 Modules: (I) Solar Water Pump; (II) Components of Solar Water Pump and (III) Operation & Maintenance
- Technical program contains 6 Modules: (I) Solar PV Water Pumping Technology; (II) Solar PV Fundamentals and components; (III) Site Assessment & Installation Requirements; (IV) Commissioning procedures of Solar Water Pump; (V) Operation & Maintenance of Solar Pumps and (vi) Coordination at Workplace and Safety Aspects

PROGRAMS LAUNCHED BY ISA

Capacity Building–Solar Technology Application Resource Center(STAR-C)

- Develop and run training programs, both short-term and long-term for technical personnel and senior officials
- Develop and conduct Training of Trainers(ToT) courses
- Act as resource center for different types of solar data bases
- Preparation of baseline studies and solar roadmaps
- Develop standards, performance bench-marks, testing and certification protocols
- Develop, support and demonstrate innovative solar applications
- Identify technologies available in public domain useful to ISA countries
- Network with existing training centres in ISA countries & develop centers in different ISA member countries

SUMMING UP

- Share of renewables in the electricity generation has gone up
- Solar based generation has been showing a promising trend
- Renewables, specially solar based generation is key to address the climate change issues and also address energy security of various countries and for achieving universal access of electricity to all households (SDG7)
- ISA has been set up to promote solar energy in member countries by addressing various challenges by creating favourable eco-systems, such as:
 - Access to technology
 - Reduced cost of technology
 - Access to finance at a competitive cost
 - Promoting private investment by addressing risk perceptions by various Risk Mitigation Mechanisms
 - Capacity building
 - Access to knowledge

THANK YOU