



## 1<sup>st</sup> WORLD SOLAR TECHNOLOGY SUMMIT

08<sup>th</sup> September, 2020: 04:30 – 09:30 p.m.

### *CONCEPT NOTE*

The International Solar Alliance (ISA) is a treaty-based international intergovernmental organisation. ISA was launched by H.E. Narendra Modi, Hon'ble Prime Minister of India, and H.E. François Hollande, former President of France, in the presence of H.E. Ban Ki Moon, former Secretary-General of the United Nations, at Paris on November 30, 2015 on the side lines of the Conference of Parties (COP) 21, of the United Nations Framework Convention on Climate Change.

The Paris Declaration establishes ISA as an alliance dedicated to the promotion of solar energy among its Member Countries. The major objectives of the organization include deployment of 1000 GW of solar capacity and mobilisation of US\$ 1000 billion of investment in solar energy sector by 2030.

As an action-oriented organisation, ISA intends to bring together member countries to aggregate demand and realise economies of scale, resulting in reduction of costs of solar applications, facilitating deployment of existing solar technologies at scale, and promoting collaborative solar R&D and capacity. As on June 26 2020, the ISA Framework Agreement has been signed by 86 countries, with 67 having also deposited instruments of ratification. The ISA is headquartered at Gurugram in Haryana, India. H.E. Mr. Upendra Tripathy is the Director General.

### **Contextual Background**

There is a gap at present in the application of solar technologies to the very large un-met demand for solar-powered technologies in most countries. There is an incidental shortage of solar energy manufacturing eco-system, acquisition, diffusion, indigenization & absorption of technologies. With increasing applications, import of solar technologies has also been increasing. These apart, absence of universal energy access, energy equity and affordability are issues common to many ISA member countries.

Solar technologies have made significant progress and are now considered as a viable option for meeting energy needs in a sustainable manner. The Framework Agreement of ISA calls for adaptation of solar technologies in member countries to reduce cost of finance and cost of technology, so that its deployment can be scaled up.

ISA is working with its member countries to formulate projects and programmes to accelerate development and deployment of existing clean solar projects, the potential for which largely remain untapped. ISA is also facilitating capacity building for promotion and adoption of solar technologies and R&D among member countries to bridge the gap.

### **About the 1<sup>st</sup> World Solar Technology Summit**

It is proposed to organise World Solar Technology Summit (WSTS) on September 08, 2020. The Hon'ble Prime Minister of India Shri Narendra Modi shall grace the Inaugural Ceremony. The Summit aims to bring together key stakeholders - leading academic scientists, technology developers, researchers and innovators to present and discuss the recent highlights of solar technologies, cost-wise; technology-wise, technology transfers, challenges and concerns in the field. The main objective of WSTS is to showcase to member countries the state of the art and next-generation solar technologies

worldwide and to give an opportunity to decision-makers and stakeholders to meet, and discuss their own priorities and strategic agenda towards a larger integration.

### **Key Focus Areas**

- to promote solar technologies, new business models and investment in the solar sector to enhance prosperity;
- to formulate projects and programmes to promote solar applications;
- to develop innovative financial mechanisms to reduce cost of capital;
- to build a common knowledge e-Portal; and
- to facilitate capacity building for promotion and absorption of solar technologies and R&D among member countries.

### **ISA Programmes**

ISA Secretariat has developed, with varying levels of member country participation, the following programmes:

- i) Scaling up solar decentralized applications for Agriculture use;
- ii) Scaling up Solar Min-grids;
- iii) Scaling up Solar Rooftop;
- iv) Scaling up solar E-mobility and Storage; and
- v) Development of large-scale Solar Parks
- vi) Another, on ‘Solarizing Heating and Cooling Systems’ is being considered.

### **Cross-Cutting Programmes**

- Affordable finance at scale: Establish mechanism to reduce cost of capital;
- Infopedia – (an online platform for networking amongst members, a repository of information, Solar Academy for training and research, and directory for access to expertise and institutions);
- STAR-C (Capacity building, Research, Innovation and Entrepreneurship); and
- Six (6) Global Task forces to promote the implementation of the programmes, goals and objectives.

### **New Initiatives**

With a view to take forward its Agenda, the ISA Secretariat launched the following eight (8) new initiatives which were green flagged by Hon’ble President of ISA and Minister of New and Renewable Energy, Mr. R K Singh on 27<sup>th</sup> April, 2020. These initiatives include: solar PV technician skill development initiative, making solar bankable, an undergraduate program for Small Island Developing States (SIDS) and Least Developed Countries (LDCs), ISA Cares initiative, and initiating price exploratory global bid for providing energy access to 47 million households by solar home systems. The initiatives also included the action plan for developing up to 20 GW of solar parks and the launch of an ISA advisory for the manufacturers of ventilators for the use of solar kits besides ISA’s new website.

## Scope and Format of Summit

Besides, the Inaugural and the Opening Plenary Sessions, four virtual consecutive sessions are proposed to be organized to discuss about the current situation and important achievements. The Summit's Agenda shall include:

- Opening Plenary Session to be addressed by Hon'ble Prime Minister of India and other high-level dignitaries.
- Moderated panel discussion among the Global CEOs of some of the world's largest corporations followed by four technical sessions of 45 Minutes each :
  - a) Session -1: Vision 2030 & Beyond: The overall context of PV technology development and its future, on its way towards becoming the first source of energy worldwide, with PV technologies supplying 70% of the world's electricity generation.
  - b) Session -2: Towards a Decarbonised Grid: The most recent advances (conversion efficiency improvements and declining costs) regarding key components such as PV modules and storage technologies.
  - c) Session -3: Disruptive Solar Technologies: On-grid applications, whether ground-mounted, floating, or integrated in residential and commercial rooftops.
  - d) Session -4: Solar Beyond the Power Sector: Innovative applications where PV is used to move, heat, cool, and drive eco-friendly industrial processes and produce fuels as well as off-grid applications, to provide universal access to energy.
- High-level Valedictory Session to be addressed by Hon'ble Ministers and High level dignitaries.

## Main Outcomes Expected:

1. Raising awareness
  - Proposing a vision on the solar energy development
  - Showcasing new technologies and applications:
    - from the energy access market to the power supply of big utilities
    - whether on land, at sea and in the build environment
2. Capacity building, in order to :
  - Facilitate R&D and innovative project implementation
  - Develop a holistic approach:
    - Covering all fields of activities: energy, agriculture, transportation, industry, housing and planning, etc.
    - Encouraging cross-fertilization among all stakeholders
3. Launch of "ISA Journal: from technology to implementation"
4. An opportunity for further dialogues at an international scale among countries and stakeholders, especially scientists and industrial companies

## Participant Profile:

The event is open to all stakeholders. Participants to the event will include Hon'ble Ministers, High-Level Dignitaries, National Focal Points and senior government functionaries from ISA member countries, diplomatic missions, ISA Partners, project developers, manufacturers, R&D institutions, academia and think tanks, civil society, international organizations and donors, representatives of non-governmental and community-based organizations, academics, research and training institutes, international media, multilateral agencies etc. This virtual conference is a great and unique occasion for decision-makers and stakeholders to meet, and discuss their own priorities and strategic agendas.

## PROVISIONAL AGENDA OUTLINE

<b>Medium: Virtual</b>	
<b>OPENING PLENARY SESSION</b> <b>16:30 – 18:00 Hrs</b>	
16:30 Hrs.	<b>Arrival (Virtual) of the VVIP</b>
16:30 – 16:31 Hrs	Silent prayer for the departed souls that battled Covid-19
16:31 – 16:36 Hrs. <b>Welcome Address</b>	<b>Shri R.K. Singh,</b> Hon’ble Minister of Power, New and Renewable Energy and Skill Development, Govt. of India and President of the ISA Assembly.
16 :36 -16 :39 Hrs <b>Special Address</b>	<b>Prof. K. VijayRaghavan *</b> (TBC) Principal Scientific Advisor to Government of India
16:39 – 16:44 Hrs. <b>Keynote Address</b>	<b>Ms Barbara Pompili, *</b> (TBC) Hon’ble Minister of Ecological Transition, Govt. of France and Co-President of the ISA Assembly.
16:44 -16:49 Hrs <b>Special Address</b>	<b>Mr. Bertrand Piccard</b> Chairman, Solar Impulse Foundation
16:49 – 16:52 Hrs <b>Special Address</b>	<b>Dr. Dharendra Yogi Goswami</b> Distinguished University Professor in Chemical Engineering, Director of the Clean Research Centre, University of South Florida, USA
16:52 – 17:02 Hrs <b>Keynote Address</b>	<b>Nobel laureate Dr M. Stanley Whittingham</b> Director and Professor of Chemistry, Institute for Materials Research and the Materials Science and Engineering Program Binghamton University, State University of New York.
17:02 – 17:05 Hrs <b>Special Address</b>	<b>Dr. Sangita Reddy</b> President of FICCI. ISA’s Industry Partner for World Solar Technology Summit
17:05 – 17:08 Hrs <b>Action Agenda</b>	<b>Mr. Uday Kotak</b> President of CII. To hand over the Corporate partnership letters to Hon’ble Prime Minister.
17:08 -17:13 Hrs <b>Keynote Address</b>	<b>Ms. Ursula Von der Leyen *</b> (TBC) Hon’ble President, European Commission, Belgium
17:13 – 17:56 Hrs. <b>Inaugural Address</b>	<b>Shri Narendra Modi</b> Hon’ble Prime Minister of India
17:56– 18:00 Hrs. <b>Vote of Thanks</b>	<b>Mr. Upendra Tripathy</b> Director General, International Solar Alliance Secretariat
18:00 Hrs	<b>Departure of VVIP</b>
<b>SESSIONS TO FOLLOW</b>	

<b>Session: 2</b>	<b>GLOBAL CEO'S SESSION</b> <b>18:00 – 19:00 Hrs</b>
<b>Discussion Points</b>	Moderated panel discussion among the CEOs of some of the world's largest corporations that contribute greatly towards the promotion of solar energy integration with other renewables and storage for sustainable energy solutions. The discussions would be linked around the creation of an innovative ecosystem that could promote the expansion of the solar energy landscape globally.
<b>Technical Session: 3.1</b>	<b>VISION 2030 AND BEYOND</b> <b>19:00 – 19:50 Hrs</b>
<b>Discussion Points</b>	This session will describe the current solar PV situation (technologies, markets, manufacturing capacities) and its future prospect up to 2050, explaining how the solar sector will revolutionize allied sectors such as the transportation sector and agricultural sector among others.
<b>Technical Session: 3.2</b>	<b>TOWARDS A DECARBONISED GRID</b> <b>19:00 – 19:50 Hrs</b>
<b>Discussion Points</b>	Solar parks are vital for providing low-cost electricity. This session will focus on understanding how best to achieve such low-cost electricity, and answer questions regarding the impacts of optimization on a larger scale: socio-economic and environmental impacts, services to the grid system, etc.
<b>Session: 4.1</b>	<b>DISRUPTIVE SOLAR TECHNOLOGIES</b> <b>19:50 – 20:40 Hrs</b>
<b>Discussion Points</b>	Technological innovation has supported most of the improvements in terms of performance and costs over decades. This session will address some key innovations that are being rolled-out in to the market in the mid-or long-term.
<b>Session: 4.2</b>	<b>SOLAR BEYOND THE POWER SECTOR</b> <b>19.50 to 20.40 Hrs</b>
<b>Discussions Points</b>	Beyond large-scale solar parks, photovoltaics can be applied to a large number of applications, for instance in the transportation sector with solar mobility, or in the building sector with rooftops and BIPV among others.
<b>Session : 5</b>	<b>VALEDICTORY SESSION</b> <b>20:45 – 21:30 Hrs</b>
<b>END OF SUMMIT</b>	