

UN CLIMATE CHANGE CONFERENCE – UNITED ARAB EMIRATES

30 NOVEMBER – 12 DECEMBER 2023

THE SOLAR HUB



BEYOND HORIZONS: HOW FAR CAN WE SCALE FLOATING SOLAR?

Thematic Arena 3, TA3-190, Opportunity District, Expo City, Dubai

5 DECEMBER, 2023 | 10:30 AM – 12:00 PM

Background & Rationale

Developing countries are actively seeking reliable, affordable, and sustainable solutions for their future power supply needs. In this context, the adoption of floating solar photovoltaics (FPV) has gained momentum as a competitive and environmentally friendly electricity generation option. Despite its growing appeal, this technology remains in its early stages of development, leaving many potential adopters with questions about its underlying principles, advantages, and proper assessment methods.

Floating Solar Photovoltaics (FPV): A Revolutionary Energy Source: - Scaling up floating solar has emerged as a promising and innovative solution to address the increasing global demand for clean and sustainable energy. FPV, a renewable energy technology, involves the installation of solar panels on water surfaces. This approach harnesses solar energy to generate electricity, all while making use of otherwise idle or underutilized aquatic areas. The distinct advantages of this approach have the potential to reshape the global energy landscape.

India's Pioneering Journey in Floating Solar: - India embarked on its journey with floating solar in 2014 when the Ministry of New and Renewable Energy (MNRE) approved this technology in Kolkata. There are more than fifteen floating solar projects being executed in India by central power utilities of total 1.83 GW are constructed / under construction/ planning stage.

Among these initiatives, India's largest floating solar power project is the 100 MW Floating Solar Power Project, which is now fully operational at Ramagundam in Telangana. This significant project was developed by NTPC and stands out for its advanced technology and environmentally friendly features.

ISA engagements - As part of its efforts to advance the development of **large-scale solar power projects as Ground mounted Solar parks / Floating solar**, the ISA has received expressions of interest (EOIs) totalling approximately 7.65 gigawatts (GW) from 19 member countries out of which 12 countries have appointed NTPC as PMC for 6.5 GW for ground mounted / floating solar projects.

In addition to this, ISA has conducted training sessions for a total of 461 participants from 37 member countries as part of this program.

Session Objectives	<p>The session will cover the technical challenges and mitigation mechanisms associated with floating solar PV (FSPV) such as material integrity of floaters & its quality standards, water level variations, water flow in the vicinity of footprint, waterbed conditions, local wind and wave condition and innovative anchoring and mooring schemes, etc. Technology innovations for implementation of FSPV in ocean type environments such as high corrosivity, waves and it's cost implications shall also be covered. The potential environment challenges are one of the major mental roadblock which shall also be addressed in this discussion. The session will also cover few case studies from countries who have implemented FSPV in their water bodies</p> <p>Further the session will also facilitate knowledge exchange, collaboration, and skill development among ISA member countries, enabling the sustainable and effective implementation of floating solar technologies.</p>
Agenda	
10:30 - 10:35 AM	<p>Welcome and Opening Remarks Dr Ajay Mathur, International Solar Alliance</p>
10:35 - 10:45 AM	<p>Keynote Address H.E. Hon Georges Pierre LESJONGARD, Hon'ble Minister of Energy and Public Utilities, Republic of Mauritius (TBC)</p>
10:45 - 10:55 AM	<p>H.E. Matthew Opoku Prempeh, Hon'ble Ministry of Energy, Ghana (TBC)</p>
10:55 - 11:05 AM	<p>Special Address Jt. Secretary (Solar) /Senior Official, Ministry of New and Renewable Energy, Government of India</p>
11:05 - 11:10 AM	<p>Presentation and Short Video J S Chandok, GM (International Business), NTPC Ltd.</p>
11:10 - 11:55 AM	<p>Panel Discussion Moderator</p> <ul style="list-style-type: none"> ▪ Ramesh Kumar, Chief of Unit, ISA Secretariat <p>Panellists</p> <ul style="list-style-type: none"> ▪ Mr. J S Chandok, GM(IB), NTPC Ltd. ▪ Pankaj Kumar, Quant Solar ▪ Doumeraj JAHAJEEAH, the Acting Director, Technical Services, NFP Mauritius ▪ Anil Chellamasetty, CEO and MD, Greenko (TBC) ▪ Deepak Samuel, Sr. Scientist, NCSCM (TBC) ▪ Seth Mahu, Deputy Director Renewable Energy, at the Ministry of. Energy and Petroleum, NFP Ghana (TBC)
11:55 - 12:00 PM	<p>Concluding Remarks Ramesh Kumar, Chief of Unit (PPIC), ISA Secretariat</p>