

## From the Ex-Officio Interim Director General, ISA



**UPENDRA TRIPATHY**

*Ex-officio Interim DG, ISA*

On 30 November 2015, the declaration on the occasion to launch the International Solar Alliance of countries dedicated to the promotion of solar energy was announced in Paris. I am delighted to present the first edition of the International Solar Alliance's (ISA) quarterly journal. This edition is being brought out to provide stakeholders with a broad understanding of ISA's progress

so far and its key tasks ahead, highlighting the role ISA can play in the scaling up of solar energy deployment around the world.

We stand at a crucial phase in determining the energy future of the world and, by creating a platform for global co-operation on solar energy, ISA is set to embark on its mission to spearhead this energy revolution. The synergy and enthusiasm displayed by participants at the numerous events organised by ISA is indicative of the level of commitment to and expectation from the solar energy sector.

To my mind, one of ISA's biggest strengths is that it is conceived as a unique international body with an exclusive focus on solar energy, with all its prospective member

countries well-endowed with the resource. With the proactive co-operation of all of the prospective member countries involved, ISA could emerge as a one-stop shop to: (i) formulate projects and programmes to promote solar applications; (ii) develop innovative financial mechanisms; and (iii) facilitate capacity building for solar technologies, research and development, and information exchange through a 24x7 knowledge portal.

On January 25, 2016, the Honorable Prime Minister of India, Mr. Narendra Modi and His Excellency, the President of France, Mr. Francois Hollande, laid the foundation stone of the ISA headquarters and inaugurated the interim secretariat of ISA at Surya Bhawan, National Institute of Solar Energy Campus, Gwal Pahari, Faridabad-Gurgaon Road, Gurugram, Haryana - 122003, India.

The Interim Administrative Cell of ISA has met seven times between February and September 2016. ISA has already set the stage to create maximum value for its member countries and we eagerly look forward to collaborating with all 121 prospective member countries to achieve ISA's vision in supporting countries as they advance on their path to realise their solar potential. I welcome this ISA Journal initiative to keep all stakeholders updated on ISA activities and I urge you to provide feedback on ways we can improve our communications.





## ISA Work Programme: Scaling Solar Applications for Agricultural Use

### AIM

To jointly address the three major obstacles to deployment of solar applications for agricultural use at scale: (i) products not tailored to needs; (ii) poor quality leading to high operational costs; and (iii) lack of know-how dissemination, by bringing reliable, affordable and tailored-to- needs solar applications, within the reach of all farmers in their countries.

### OBJECTIVES

- Adopt common procedures for needs assessment for decentralised solar applications for agricultural use;
- Facilitate the setting up of a network of technological research centres and a digital platform to cluster identified solutions;
- Harmonise tendering and documentation processes for procurement of systems;
- Develop common standards and test platforms to ensure quality control;
- Share the monitoring of projects and actual performance of applications; and
- Set up common training and e-learning courses and to consider technology transfers.

### CURRENT STATUS

- Current programme participants: Bangladesh, Ethiopia, France, India, Nigeria, Seychelles, Sri Lanka and Uganda.
- Representatives had two video interactions on 28 June 2016 and 20 July 2016.



**PIYUSH GOYAL,**  
Minister for Power, Coal, New and Renewable Energy, and Mines, Government of India on the Scaling Solar Applications for Agricultural Use Programme



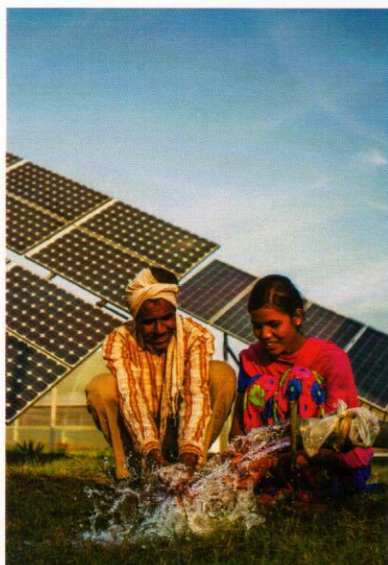
**SÉGOLÈNE ROYAL**  
Minister of Environment, Energy and Marine Affairs, Government of France on the Scaling Solar Applications for Agricultural Use Programme

*"Most of the ISA member countries, where energy access is a concern, are agrarian economies and, thus, solar-based interventions for agriculture and agro-processing industries will go a long way in improving yields and delivering better economic returns."*

*"Solar irrigation pumps will be a major focus of this Programme. Synchronisation and harmonisation of tenders at the scale of the Alliance will bring higher quality to all."*



Upward of **56%** of irrigated agricultural land around the world requires energy (FAO and GIZ, 2015)



### APRIL 2016: JOINT DECLARATION BY UNDP AND ISA FOR PROMOTING SOLAR ENERGY

#### Areas of cooperation include:

- Development of synergies between ISA and ongoing UNDP programmes in prospective ISA member countries;
- Create complementary linkages with on-going global and regional efforts relating to solar energy;
- Strategic cooperation in programmatic and technical expertise and facilitating participation of UN bodies to create innovation hubs in and technology transfers among ISA member countries;
- Establish knowledge management systems and e-portals for sharing and management of knowledge on solar energy;
- Strengthen the development of ISA's institutional structure and provide training programmes and/ or exchange of experts through UN Global Policy Centres.



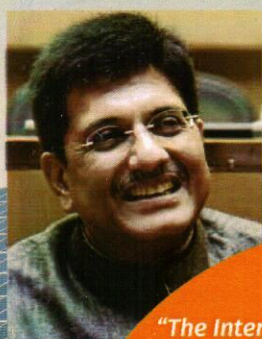


President Hollande, Prime Minister Modi, Secretary General Ban Ki-moon and Minister Javadekar at the launch of the International Solar Alliance at COP21 on 30 November 2015.

# isa

## Vision and Mission

The vision and mission of the International Solar Alliance is to provide a dedicated platform for cooperation among solar resource rich countries where the global community, including bilateral and multilateral organizations, corporates, industry, and other stakeholders, can make a positive contribution to assist and help achieve the common goals of increasing the use of solar energy in meeting energy needs of prospective ISA member countries in a safe, convenient, affordable, equitable and sustainable manner.



### PIYUSH GOYAL

Minister for Power, Coal, New and Renewable Energy, and Mines, Government of India

"The International Solar Alliance is a trillion dollar opportunity to serve humanity and those in the dark. India has launched this initiative as an obligation towards the larger humanity as an article of faith. This is about improving the quality of life of a large number of people who are still grappling with problems of energy accessibility at affordable prices.

ISA is about energy security and our response to probably the biggest challenge humanity has faced."



## ISA Work Programme: Mobilising Affordable Finance at Scale

### AIM

To make joint efforts to mobilise more than one trillion USD of investment by 2030, for the massive deployment of affordable solar energy worldwide and to reduce the cost of finance for immediate deployment of competitive solar generation.

### OBJECTIVES

- Design best practices for large scale projects eligible for common credit enhancement mechanisms;
- Develop standardised contractual documentation and practices in public tenders and power procurement processes to reduce diligence costs and risk perception;
- Establish an international credit enhancement mechanism to de-risk investments and reduce the cost of financing;
- Conduct discussions with the corporate sector, on the optimal terms for investment flows; and
- Organise on an annual basis RE-Invest fora for multistakeholder dialogue.

### CURRENT STATUS:

- Current programme participants: Bangladesh, Ethiopia, France, India, Nigeria, Seychelles, Sri Lanka and Uganda.



**SÉGOLÈNE ROYAL,**  
on the Affordable  
Finance at Scale  
Programme

*"It is a major breakthrough for the actual implementation of the Paris Agreement and a decisive move toward a long and fruitful cooperation of stakeholders, governments, businesses, financiers to better serve the needs of the population, the economy and the climate in ISA countries."*



India on its own  
will require  
upwards of

**\$100 bn**

to achieve its  
solar target of a  
100 GW by 2022

### JUNE 2016: JOINT DECLARATION BY THE WORLD BANK AND ISA FOR PROMOTING SOLAR ENERGY



The declaration will help accelerate the mobilisation of finance for solar energy of more than USD 1000 billion in investments that will be needed by 2030, to meet ISA's goals.

#### Areas of cooperation include:

- Develop a roadmap to mobilise financing for solar energy deployment;
- Convene international financial institutions, multilateral development banks, etc. to develop financing instruments supporting solar energy development and deployment;
- Support ISA's plans through technical assistance and knowledge transfer;
- Mobilisation of concessional financing through existing/ new trust funds;
- Support RE-Invest events and advocacy for green energy commitments.

Solar took the  
lion's share of the  
total investment  
in RE

**at \$161 bn**  
in 2015

(UNEP, Bloomberg New  
Energy Finance)





# RE-Invest

RE-Invest 2017, the second edition of the biennial global renewable energy investors' meet & expo, is scheduled to be held in Gandhinagar, Gujarat (India), from 15 to 17 February 2017. RE-Invest 2017 will continue the ongoing information campaign on renewable energy to both established and newer segments of stakeholders interested in clean energy.

RE-Invest 2017 is organised by the Ministry of New and Renewable Energy, India (MNRE) in partnership with the Indian Renewable Energy Development Agency (IREDA), the Confederation of Indian Industry (CII) and the Federation of Indian Chambers of Commerce (FICCI), with YES Bank as the knowledge partner.

Terawatt Initiative (an initiative launched by Engie at COP21 to support and advance ISA's objectives) has expressed interest in supporting the organisation of global RE-Invest events in Peru, Kenya and Indonesia during 2017.

## RE-INVEST 2017

15 - 17 FEBRUARY 2017 | GANDHINAGAR, GUJARAT, INDIA



## INTERNATIONAL SOLAR ALLIANCE

EXPLORE THE REIGN OF THE SUN AT RE-INVEST 2017



## Meanwhile, in the World of Solar



The lowest solar bid in  
the world was under

# \$ 0.03

in Chile in August 2016



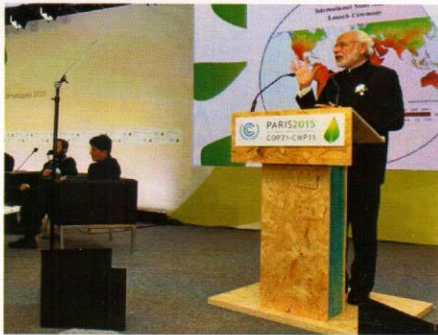
In May 2016,  
the lowest solar  
bid in India was

# \$ 0.07

- Solar tariffs have been rapidly declining globally. The transition from feed-in-tariffs to reverse auctions has worked well to encourage competition and drive down solar tariffs. The lowest ever solar bids were recorded in August 2016 at USD cents 2.91 for a 120 MW project located in Chile and in May 2016, at USD cents 2.99 for an 800 MW project in Dubai. However, in India, the lowest solar bid to date was INR 4.34 (USD cents 6.5). The Council on Energy, Environment and Water (CEEW) has assessed the composition of the solar bids in its recent study titled, "Anatomy of Solar Tariffs".
- In connection with the 'Affordable Finance at Scale Programme', the Indian Renewable Energy Development Agency (IREDA) has developed: (i) a Credit Enhancement Scheme for raising bonds by project developers against commissioned and operationally viable renewable energy projects; and (ii) a First Loss Protection Mechanism, which acts as a credit enhancement tool by absorbing a part of the default under power off-take arrangements, thereby enabling a lower cost of capital. IREDA presented the details of these instruments at the 7<sup>th</sup> Interim Administrative Cell meeting, discussing the potential application for prospective ISA member countries.
- In relation to ISA's Scaling Solar Applications for Agricultural Use Programme, the International Renewable Energy Agency's report on "Solar Pumping for Irrigation: Improving livelihoods and sustainability", published in June, 2016, provides an interesting read on solar energy opportunities in the agriculture and water sectors.







## DECLARATION ON THE OCCASION TO LAUNCH THE INTERNATIONAL SOLAR ALLIANCE OF COUNTRIES DEDICATED TO THE PROMOTION OF SOLAR ENERGY

Recognizing that sustainable development, universal energy access, and energy security are critical to the shared prosperity and future of our planet, and acknowledging that clean and renewable energy needs to be made affordable for all, we do hereby declare our intention to support India's proposal to launch an international solar alliance as a common platform for cooperation among solar resource rich countries lying fully or partially between the Tropics of Cancer and Capricorn.

United by a shared vision to bring clean, affordable and renewable energy within the reach of all, we affirm our intention to join the international solar alliance as founding members to ensure the promotion of green, clean and sustainable energy, and to draw on the benevolence of the Sun to this endeavor.

We share the collective ambition to undertake innovative and concerted efforts with a view to reducing the cost of finance and cost of technology for immediate deployment of competitive solar generation assets in all our countries and to pave the way for future solar generation, storage and grid technologies adapted to our countries' individual needs.



**First ISA Steering Committee Meeting: Held on 1 December 2015 in Paris:** It was determined that ISA, in consultation with IRENA, IEA etc. would carry out an analysis and set up an institutional mechanism for joint consultation to avoid duplication in the area of conducting studies or sanctioning similar projects in the same places.

**Second ISA Steering Committee Meeting: Held on 18 January 2016 in Abu Dhabi, UAE:** It was agreed that an Interim Administrative Cell of ISA shall be set up in New Delhi, which would take all measures following the 2<sup>nd</sup> Steering Committee meeting and would keep the ISC and prospective ISA member countries informed.

**Third ISA Steering Committee Meeting: Held on 21 April 2016 in New York, USA:** The common guidelines for making a Work Programme proposal under ISA were determined and the programmes for "Scaling solar applications for agricultural use" and "Affordable finance at scale" were adopted.

Full reports of the three ISA Steering Committee meetings and the seven Interim Administrative Cell meetings are available at [www.intsolaralliance.org/St.com.html](http://www.intsolaralliance.org/St.com.html)

## hindustantim WIRE

**Modi, Hollande dedicate Solar Alliance to the world**

**The International Solar Alliance Could Help India Align its Energy Ambitions**

BY JPRITHA CHATURVEDI ON 04/03/2016 - LEAVE A COMMENT

THE ECONOMIC TIMES

You are here: ET Home - Industry - Energy - Power

10:52 AM (10:52) MARKET STATS ▼ SENSEX 28,307 ▲ 63.50 NIFTY 50 8,757 ▲ 19.35 GOLD (MCX) (Rs/10g) 30,670 ▲ 91.00 USD/INR 66.56 ▼ -0.02

**International Solar Alliance gathers steam, summit in New Delhi next year**

By Kanya Chandrasekaran, ET Bureau | Updated: May 23, 2016, 06:16 AM IST

**NEW DELHI:** The International Solar Alliance, led by France investors and financiers in high-profile events in New Delhi, K countries with high solar potential in three different continents.

The next investment summit is scheduled for February 2017 to be held in other countries. Udaya Tripathy, secretary, minis

## Business Standard

**Arunabha Ghosh: Building the International Solar Alliance**

## India's Place in the Sun: The International Solar Alliance

India is set to lead the International Solar Alliance, but its task is not without challenges.

By Raymond E. Vickery  
March 23, 2016

India is placing a big bet on solar energy. During his first year in office, Prime Minister Narendra Modi quintupled India's goal for solar. His new budget announces a 2.45 t outcome of India's solar bet will radically affect the chances for success of Modi's ori

## THE HINDU

OPINION • COLUMNS

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POLICY WATCH

**Can the international solar alliance change the game?**

• Arunabha Ghosh  
• Kanika Chawla

## Call for Interns

ISA is accepting applications for internship through the United Nations Development Programme. The duration of the internships will be between three and six months. Selected interns will work on various programmes being implemented by ISA and solar application projects, including 34 solar parks in India.

All internships shall be as per UN norms. Applicants from prospective ISA member countries are encouraged to apply. The International Solar Alliance's Interim Secretariat looks forward to welcoming successful applicants to the team!



## Interim Secretariat

INTERNATIONAL SOLAR ALLIANCE

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