6th Best Practices Study Tour and International Workshop on

# Agri PV Plants, RE Grid Integration and Green Hydrogen

Date: 15th - 17th March 2023

Venue: Hotel Fairfield by Marriott, Jodhpur









Organized by





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#### INTRODUCTION

The Government of India is focusing on meeting the increasing energy demand through massive scaling up of its electricity generation from renewable energy sources. The Government of India aims to achieve 500 GW Renewable capacity by 2030.

Agri-PV or agrivoltaics can resolve land-use conflicts between energy and agriculture production, by combining both on the same site and increasing land productivity. The additional benefits include increased decentralized and local electricity production enabling sustainable production/supply chain, the reduction of peak energy demand and a reduction of CO2 and hazardous local emissions from conventional power plants. Farmers benefit from an increase in income while diversifying their risk, cost savings through self-consumption of electricity, improved agricultural practices and lower requirement of water for irrigation.

The study tour consists of a visit to pilot project in the Agri PV plant in CAZRI Jodhpur, a 105 kWp, one-acre Agri PV system comprises 35 kWp each block of panels plus a rainwater harvesting tank.

The Prime Minister of India announced the launch of the National Hydrogen Mission (NHM) while commemorating 75 years of Independence on 15 August 2021. The mission aims to significantly reduce carbon emissions and increase the use of renewable sources of energy and envisages making India a global hub for green hydrogen production and export. Green hydrogen is produced via the electrolysis of water; the electricity used for the electrolysis must derive from renewable sources. Irrespective of the electrolysis technology used, the production of hydrogen is zero-carbon since all the electricity used derives from renewable sources and is thus zero-carbon.

#### ANNOUNCEMENT

The Indo-German Energy Forum (IGEF), and the Central Board of Irrigation and Power (CBIP) have taken a joint initiative of organizing the 6th Best Practices Study Tour and International Workshop on Agri PV Plants, RE Grid Integration and Green Hydrogen from 15 -17 March 2023 (Wednesday, Thursday and Friday) at Jodhpur. The Best Practices Study Tour and International Workshop will be beneficial for the participants to enhance their knowledge on Agri PV Plant, RE Grid Integration and Green Hydrogen - benefits and challenges.

The program is expected to be attended by participants drawn from State GENCOS, DISCOMS, State Transmission Utilities (STUs), State and Regional Load Dispatch Centers, NHPC, NTPC, POWERGRID, Grid Controller of India Ltd., State RE Departments, State Electricity Regulators, Agriculture Departments, Water organizations other relevant stakeholders as well as from neighboring countries like Bangladesh, Nepal and Bhutan etc.

## **OBJECTIVES OF THE STUDY TOUR**

The objectives of the Best Practices Study Tour Program are to:

- Provide the DISCOMS/Developers/STUs and other stakeholders and opportunity to share their experiences, and success stories and learn from the experiences of others.
- Discuss the important issues faced by the EPC contractors of Agri PV management and agricultural products and services, as well as yields and productivity.
- Discuss the regulatory and financial mechanisms required to provide the impetus of Agri-PV Plant, RE Grid Integration and Green Hydrogen.
- Learn the latest GH2 and GNH3 technologies and processes and help in the development of strategic plans at the state level or company level and contribute to the net Zero blueprints.
- Create a network of professionals working in the "Agri PV and GH2 and GNH3" domain.

#### PROGRAMME SCHEDULE

Date: Wednesday 15 <sup>th</sup> March 2023 Venue: Jodhpur at Fairfield by Marriott Hotel, Jodhpur, Opposite New High Court, Near Shatabdi Circle, Vijay Raje Nagar, Jodhpur, 342 013, Rajasthan, Phone : 0291 7112222 /9001514543					
Time	Description				
14:00 hrs. onwards	Reporting of participants at the hotel				
17.30 – 19.00 hrs.	Registration and introduction with participants and briefing about program				
19.00 onwards	Networking Dinner				

	March 2023 Fairfield by Marriott Hotel, Jodhpur, Opposite New High Court, Near Shatabdi Circle, Vijay Raje 42 013, Rajasthan, Phone : 0291 7112222 /9001514543			
08:00 -10:00 hrs.	Breakfast at Hotel			
10.00-13.00 hrs.	Technical visit 105 KwP Agri PV Plant and RE Grid Integration in the Central Arid Zone Research Institute (CAZRI), Jodhpur			
13.00 – 14.00 hrs.	Lunch at Hotel			
1430 – 20.00 hrs.	Historical City Tour			
20:00 – 22.00 hrs.	Networking Dinner at Hotel			
Date: Friday 17 <sup>th</sup> March 2023 Venue: Jodhpur at Fairfield by Marriott Hotel, Jodhpur, Opposite New High Court, Near Shatabdi Circle, Vijay Raje Nagar, Jodhpur, 342 013, Rajasthan, Phone : 0291 7112222 /9001514543				
08.00 – 10.00 hrs.	Breakfast at hotel			
10.00 -11.00 hrs.	International Workshop on Agri PV Plant and RE Grid Integration – Polices and Challenges			
11.00 -11.30 hrs.	Tea Break			
11.30 – 13.00 hrs.	International Workshop on Agri PV Plant and RE Grid Integration – Polices and Challenges			
13.00 – 14.30 hrs.	Net Working Lunch			
14.30 – 15.30 hrs.	International Workshop on Green Hydrogen – Policies and Challenges			
15.30 -16.00 hrs.	Tea Break			
16.00 – 17.00 hrs.	International Workshop on Green Hydrogen – Policies and Challenges			
17.00 – 17.30 hrs.	Concluding Session			
20:00 – 22.00 hrs.	Networking Dinner			
Date: Saturday 18 <sup>th</sup>	March 2023			
<u>-</u>	Fairfield by Marriott Hotel, Jodhpur, Opposite New High Court, Near Shatabdi Circle, Vijay Raje 42 013, Rajasthan, Phone: 0291 7112222 /9001514543			
08:00 -09:00 hrs.	Breakfast at Hotel			
12.00 hrs.	Check out from Hotel			
12.00 1113.	Check out from froter			

#### Note:

- Check-in time is at 1400 hrs. onwards on Wednesday (15 March 2023) at Jodhpur Hotel and Check –out time is at 12 Noon on Saturday (18 March 2023) from Jodhpur Hotel.
- Seats are very limited and on a first come first served basis. All interested participants are requested to confirm well in advance inclusive payments.
- If any participants are interested to come with their spouse kindly intimate us well in advance.
- If any participants like to stay more days (before 15 March or after 18 March 2023 kindly intimate us and book the venue hotel well in advance at bulk and negotiated rates.
- Flights are available from Delhi, Bangalore, Mumbai, Kolkata and Hyderabad to Jodhpur and back and it is also well connected by train, car, share taxi and bus.

## THE DELEGATION PACKAGE INCLUDES

- Hotels Accommodation on a single occupancy basis 4 star. (3 Nights only)
- Briefing of delegation before travel.
- Full boarding and lodging for only three nights (15<sup>th</sup> March 2023 afternoon till 18<sup>th</sup> March 2023 forenoon).
- Official tour for all transfers mentioned in the agenda.
- Professional guided tour facilities.
- Technical field visits to CAZRI Plant and important tourist places at Jodhpur.
- All course materials and background information.
- Accompanied by professional coordinators and technical experts.

# THE DELEGATION PACKAGE DOES NOT INCLUDE

- Transfers to and from Jodhpur Airport to Jodhpur hotel— on the first and last day 15<sup>th</sup> and 18<sup>th</sup> March 2023.
- Flights
- Cost for additional nights of hotel stay before 15<sup>th</sup> March and after 18<sup>th</sup> March 2023.
- Other expenses (e.g. additional meals, private consumption at the hotel, phone calls, laundry service, personal shopping, others etc.)

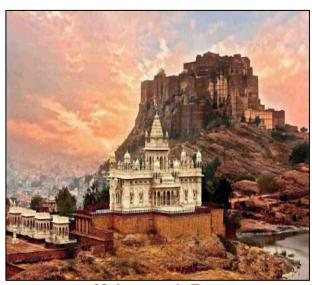
# SPONSORSHIP OPPORTUNITIES

The International Workshop on Agri PV Plants, RE Grid Integration and Green Hydrogen at Jodhpur provides an effective opportunity for sponsoring companies to promote their products/services to a focused audience, besides networking with engineers of utility, manufacturers and academic institutions during Tea/Coffee, Lunch and Dinner intervals. Sponsors assured of full visibility with printing of their names on Proceedings, Main Workshop banner and other publicity material related to International Workshop and will have the privilege of distribution of their product's pamphlets/catalogues during the event. Sponsors will also have the privilege of sending delegates exempted from payment of registration fee as indicated hereunder:

Category of Sponsorship	Fee in Rs.	Free Delegates in the workshop	Free advertisement in CBIP W&E intl. Journal on April 2023 issue or workshop proceeding
Gold	2,00,000	2	1 page
Silver	1,00,000	1	Half page

For further details, please contact the Workshop Secretariat.

#### IMPORTANT TOURIST PLACES IN JODHPUR



**Mehrangarh Fort** 

Mehrangarh Fort located in Jodhpur, Raiasthan, is one of the largest forts in India. Built in around 1459 by Rao Jodha, the fort is situated 410 feet (125 m) above the city and is enclosed by imposing thick walls. Inside its boundaries there are several palaces known for their intricate carvings and expansive courtyards. A winding road leads to and from the city below. The imprints of the impact of cannonballs fired by attacking armies of Jaipur can still be seen on the second gate. To the left of the fort is the Chhatri of Kirat Singh Soda, a soldier who fell on the spot defending Mehrangarh. There are seven gates, which include Jayapol (meaning 'victory gate'), built by Maharaja Man Singh to commemorate his victories over Jaipur and Bikaner armies. There is also a Fattehpol (also meaning 'victory gate'), which commemorates Maharaja Ajit Singhji victory over Mughals. The museum in the Mehrangarh fort is one of the well-stocked museums in Raiasthan. In one section of the fort museum, there is a selection of old royal palanguins, including the elaborate domed gilt Mahadol palanguin which was won in a battle from the Governor of Gujarat in 1730. The museum exhibits the heritage of the Rathores in arms, costumes, paintings and decorated period.



**Umaid Bhawan Palace** 

Built between 1928 and 1943, Umaid Bhawan Palace is a magnificent piece of Rajasthan's heritage, and a symbol of new Jodhpur. Home of the erstwhile Jodhpur royal family and currently the world's sixth-largest private residence, the palace has one thing in common with the iconic Taj Mahal at Agra—the palm court marble used in its construction. Perched on Chittar Hill, the highest point in Jodhpur, Umaid Bhawan Palace inspires with exotic views of the historical Blue City, vast sand dunes, and intimidating Mehrangarh Fort.

# REGISTRATION FORM

# 6<sup>th</sup> Best Practices Study Tour and International Workshop on Agri PV Plants, RE Grid Integration and Green Hydrogen

Date: 15-17 March 2023 (Wednesday, Thursday and Friday)

Venue: Hotel Fairfield by Marriott, Jodhpur, Opposite New High Court, Near Shatabdi Circle Vijay Raje Nagar, Jodhpur, 342 013, Rajasthan, Phone: 0291 7112222 /9001514543

We are proud to offer a complete special delegation package for your participation in the technical study tour to Jodhpur, Rajasthan. Please complete the following registration form to guarantee participation.

DELEGATES. Accompanying Person Charges @ Rs Wife/Son/Daughter Normally Residin Payment Options Cheque / DD in favour of: "Central Bo Sent to: Central Board of Irrigation and I or Via Bank Transfer to: Account holder name Bank Name Branch & Address Saving Bank Account No Branch/RTG/NEFT/IFSC MICR Code Swift Code GST No.	s. 12,000 /- Plus 18% Tax ng with the participants. pard of Irrigation and Power Power, Plot No-4, Malcha Ma Central Board of HDFC Bank	er" New Delhi arg, Chanakyapur of Irrigation and Building, 26 K.G.	e Occupancy Basis a	and should be
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DELEGATION PACKAGE INR 30,000 /- P	LUS 18% TAX (GST) FOR INC	DIAN DELEGATES	AND 450 DOLLARS FO	OR FOREIGN
Package option				
What are your expectations and special i	nterest in this study tour?			
Working area of organization				
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Mobile				
Telephone				
Address				
Organization				
Designation				
Name Designation				

# STUDY TOUR SECRETARIAT

# Shri A.K. Dinkar, Secretary

Shri K.K. Singh, Director

Central Board of Irrigation and Power, Malcha Marg, Chanakyapuri, New Delhi -110021 Phone: 011- 2611 5984/ 2611 1294/ 2611 6567 Ext.161 Fax: 011- 2611 6347

Contact Person: Shri B. Dasgupta, M: 9911699689, E-mail: dasgupta@cbip.org

Smt. Madhu Dhingra, M: 9953966032, E-mail: madhu@cbip.org

**Disclaimer:** By filling out this registration form, you consent to its storage and use by IGEF and CBIP for further communication related to the study tour and other important developments in the Indo-German Energy scenario.