

INDO-GERMAN ENERGY FORUM NEWSLETTER

VOLUME 07, ISSUE 03

JULY 2020



Contents

1 Introduction



Shri Amitesh Kumar Sinha
Joint Secretary,
Ministry of New and
Renewable Energy
and Co-Chair of
IGEF Subgroup II on
Renewable Energies

Page 7



Mr. Pradip Kumar Das
Chairman &
Managing Director,
Indian Renewable
Energy Development
Agency Limited
(IREDA)

Page 8



Mr. Ravinder Singh Dhillon
Chairman &
Managing Director,
Power Finance
Corporation Ltd.
(PFC)

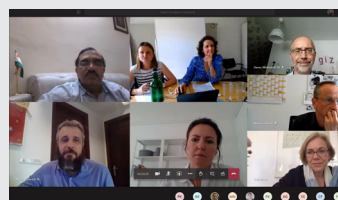
Page 9

2 Events and Activities



IGEF Subgroup II Meeting

Page 10



IGEF Subgroup III Meeting

Page 11



IGEF Subgroup IV Meeting

Page 12



**Aatmanirbhar Bharat
– Opportunities in
Renewable Energy
Manufacturing**

Page 13



**German Booth by IGCC
and IGEF-SO at REI
E-Expo 2020**

Page 14



**Webinar on Renewable
Auctions Revisited
– Learnings from
European Experiences**

Page 15

Contents



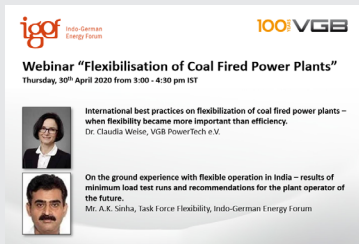
Webinar on Future of Distributed Home Storage Systems in India

Page 16



Webinar on Business Opportunities for AgroPV in India - Learnings from Europe and India

Page 17



Webinar on Flexibilisation of Coal Fired Power Plants

Page 18



Webinar on Fast Ramping of Coal Fired Power Plants

Page 19



MIIM Webinar on Indian Renewable Energy

Page 20



International Cooperation in Indian Solar Rooftop Sector - NSEFI Rooftop Stakeholder Interaction

Page 21



IGCC Webinar on Renewable Energy Technologies from Germany for Industrial Application

Page 22



IESA Web Conference on Clean Energy and Transportation: Key to fight Climate Change

Page 23

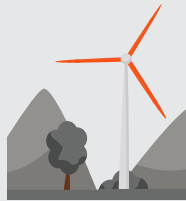
Contents

3 Developments in Indo-German Energy Cooperation



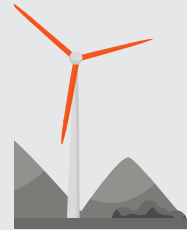
Germany supporting India with NDC Transport Initiative funded by International Climate Initiative

Page 24



Germany to Support India Evaluate Optimal Power Balancing to Meet Renewable Energy Plans by 2022

Page 25



Delegation Visit from Germany on Solar PV, Concentrated Solar Power (CSP) and Bioenergy

Page 26

4 Quote of the Month from India and Germany



Quote of the Month from India

Page 27



Quote of the Month from Germany

Page 27

5 Energy Transition News



National Hydrogen Strategy of Germany Adopted

Page 28

Contents

6 Publications



Incentivizing Flexibility: The Role of the Power Market in Germany

Page 31



COVID-19: Impact on Global Solar Market

Page 31



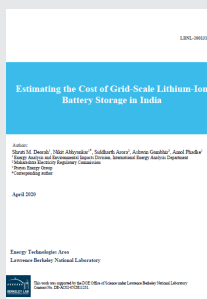
COVID-19: Impact on Indian Renewables

Page 31



Augmenting Nature by Green Affordable New-habitat

Page 31



Estimating the Cost of Grid-Scale Lithium-Ion Battery Storage in India

Page 32



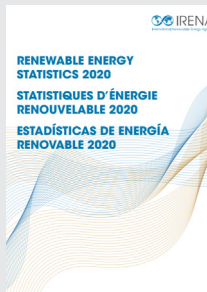
State of the Global Mini-grids Market Report 2020

Page 32



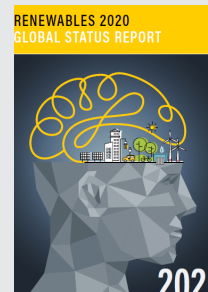
Project Impact: Impact of COVID-19 on Cities and Mobility

Page 32



Renewable Energy Statistics 2020

Page 32



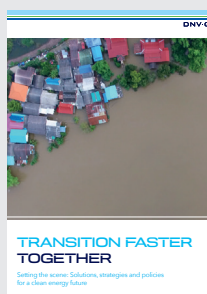
Renewables 2020 Global Status Report

Page 33



Renewable Power Generation Costs in 2019

Page 33



Transition Faster Together

Page 33



India's Clean Power Revolution

Page 34

Contents

7 Upcoming Events



German Chancellor Fellowship for Tomorrow's Leaders at German Solar Association BSW in Berlin

Page 35



Senior Expert Service (SES)

Page 35



Global Energy and Utilities Digital Week

Page 36



2nd Edition of Renewable Energy India E-Expo

Page 36



WB India Summit

Page 37



3rd Global RE-Invest

Page 37



India Energy Storage Week (IESW)

Page 38



Green Urja Awards 2020

Page 38



WindEnergy Hamburg

Page 38



Renewable Energy India Expo

Page 39



The smarter E India

Page 39

1

Introduction



**Shri Amitesh Kumar Sinha,
Joint Secretary, Ministry of
New and Renewable Energy and
Co-Chair of IGEF Subgroup II on
Renewable Energies**

Shri Amitesh Kumar Sinha is Joint Secretary at the Ministry of New and Renewable Energy (MNRE) and Co-Chair of IGEF Subgroup II on Renewable Energies. He is an officer of the Indian Railway Account Service (IRAS). Before joining the MNRE, he worked in the Cabinet Secretariat, Govt. of India and the Ministry of Railways.

In his present assignment as Joint Secretary, MNRE, he is responsible for policy formulation and standard bidding guidelines for deployment of solar energy in India. Within this, he is the nodal officer for implementation of various flagship schemes of the government of India relating to solar energy, including Solar Rooftop, Solar PV Manufacturing and Solar PV Off-Grid as well as the PM-KUSUM for farmers applications for Agrophotovoltaics (AgroPV) and Solar Pumps. Amongst others, he oversees programme matters of Solar Energy Cooperation of India (SECI), a Central Public Sector Undertaking (CPSU) and National Institute of Solar Energy (NISE), an autonomous body under the MNRE.



“The next important topic is the investment opportunities for German companies in India. We want to promote the manufacturing of solar photovoltaic modules, cells, wafers/ingots and polysilicon in India. For this purpose, a Project Development Cell (PDC) has been formed in the Ministry, which will facilitate and handhold foreign and domestic investors interested in setting up solar PV and wind energy manufacturing units. I invite all the German companies to invest in India.”

Mr. Sinha emphasised at the last Indo-German Energy Forum (IGEF) Subgroup II virtual meeting on 16 June 2020.



**Mr. Pradip Kumar Das,
Chairman & Managing Director,
Indian Renewable Energy
Development Agency Limited
(IREDA)**

Shri Pradip Kumar Das assumed charge as the Chairman & Managing Director (CMD) of Indian Renewable Energy Development Agency Ltd. (IREDA) on 6 May 2020. Prior to joining IREDA, he was serving the Indian Tourism Development Corporation Ltd. (ITDC) as Director (Finance) and Chief Finance Officer (CFO).

Pradip Kumar Das has vast experience in the finance sector. While working with organisations such as Rural Electrification Corp, Bharat Heavy Electricals Limited and Nuclear Power Corporation of India in different capacities, he contributed extensively to the formulation and implementation of various systems, new and innovative products, policies, business processes re-engineering, resource mobilisation and corporate governance. Mr. Das is a Fellow Member of the Institute of Cost Accountants of India and Associate Member of the Institute of Company Secretaries of India. He also holds a postgraduate Diploma in Management from the Xavier Institute of Management, Bhubaneswar.

Under his leadership, ITDC became the only Public Sector Undertaking (PSU) under the aegis of the Ministry of Tourism trading under the trade-for-trade segment on the National Stock Exchange (NSE) of India. He was actively involved in the financial management of ITDC including optimum utilisation of funds, investment decision and adherence to sound corporate governance practices with a view to improving the profitability of the organisation on a continuous basis. He was an essential member of the Inter-Ministerial Group, Govt. of India for disinvestment/divestment of hotel properties of ITDC and its subsidiaries, whereby he successfully divested several properties during his tenure.

In his first address to the officials of IREDA, Shri Pradip Kumar Das said that "IREDA is fully committed to building Energy Security in India through renewable sources. Being a Non-Banking Financial Company (NBFC) and enjoying a unique position in the renewable energy sector, IREDA has been regularly introducing new and innovative financial products." He further emphasised that the most important resource in the service industry, i.e. manpower needs to be well taken care of and the objective to fulfill the interest of various stakeholders in the renewable energy sector needs to be prioritised.

IREDA continues to be a strategic development partner for the German development bank KfW in the field of renewable energy financing in India and has received seven lines of credit totalling to more than EUR 650 Million since 1999. Both the institutions are cooperating to pioneer financing of new and innovative renewable energy technologies in India, including financing for sustainable clean energy services in rural areas.



**Mr. Ravinder Singh Dhillon,
Chairman & Managing Director,
Power Finance Corporation Ltd.
(PFC)**

Mr. Ravinder Singh Dhillon is the Chairman and Managing Director (CMD) of Power Finance Corporation Ltd. (PFC). In this position, he is spearheading entire operations of PFC and also playing a critical role in the implementation of key power sector initiatives of Govt. of India, namely Liquidity Package to Power Sector under Atmanirbhar Bharat Scheme, Integrated Power Development Scheme, 24X7 Power for All, Ultra Mega Power Projects, Independent Transmission Projects and Ujjwal Discom Assurance Yojana.

He has over 35 years of varied experience spread across the entire value chain of the power sector. His diverse work experience covers three years in Bharat Heavy Electricals Ltd. designing power generating equipment, six years in Central Electricity Authority with macro level planning of power systems, and 26 years in PFC, playing a key role in project appraisal, financial modeling, project monitoring and stressed asset resolution.

Prior to his current position of CMD, Mr. Dhillon held the post of Director (Projects), where he was responsible for business growth and asset quality. Under his leadership, PFC increased its focus on renewable energy business and refinancing of commissioned assets. He has also spearheaded PFC's business diversification efforts both by cross border funding and expanding the business into new market segments.

Some of his achievements include:

- ▶ Resolution of six stressed assets where PFC's exposure is over INR 100 billion.
- ▶ As part of geographical diversification, facilitated the funding of 4x225 megawatts (MW) hydroelectric project in Nepal & 2x800MW project in Jharkhand, selling power to Bangladesh.
- ▶ Revamped the project rating model and strengthened the appraisal process.
- ▶ Strengthened project monitoring by setting up a dedicated Unit and implementing online project monitoring modules.
- ▶ Mr. Dhillon is a graduate in Electrical Engineering from Thapar Institute of Engineering & Technology, Patiala and holds a Master's degree in Power Systems from Indian Institute of Technology, Delhi.

In 2019, PFC and KfW have jointly signed the "DISCOM Investment facility" amounting to EUR 200 million. PFC is looking to strengthen the relationship between organisations with similar support in the future.

2

Events and Activities

IGEF Subgroup II Meeting

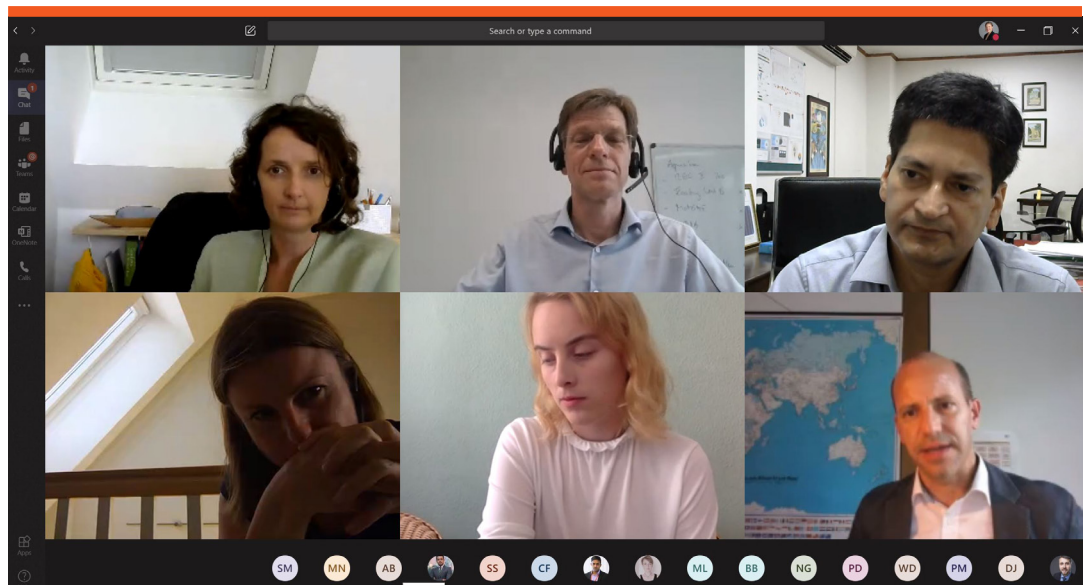
16 June 2020 | Virtual Meeting

On 16 June 2020, the first Subgroup II meeting of the year on Renewable Energies under the Indo-German Energy Forum (IGEF) took place via video conference. It was co-chaired by Dr. Christine Falken-Grosser, Head of Division Bilateral Energy Cooperation, Federal Ministry for Economic Affairs and Energy (BMWi), Government of Germany and Shri Amitesh Kumar Sinha, Joint Secretary, Ministry of New and Renewable Energy (MNRE), Government of India. The meeting was attended by representatives of the Federal Ministry for Economic Cooperation and Development (BMZ), Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU), Embassy of the Federal Republic of Germany, Solar Energy Corporation of India Ltd. (SECI), KfW Development Bank, Physikalisch-Technische Bundesanstalt (PTB), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and IGEF Support Office.

The Co-Chairs briefed each other on recent developments in the renewable energy sector with a focus on green recovery measures of their respective countries. Co-Chair Dr. Falken-Grosser informed about the green recovery stimulus package for the German economy and Co-Chair Shri Sinha reported on India's commitment on renewable energy capacity additions. Moreover, presentations were given on "Investment opportunities for German companies in India and support by MNRE" by Shri Amitesh Kumar Sinha (MNRE), "Financing of innovative renewable energy projects in India" by Dr. Jürgen Welschhof (KfW) and "Round-the-clock renewables tenders" by Shri S. K. Mishra (SECI). Furthermore, Mr. Tobias Winter, IGEF-SO reported on the current status of activities under the IGEF Subgroup II.

Dr. Falken-Grosser and Shri Sinha both expressed gratitude for the fruitful cooperation and are looking forward to implementing the jointly agreed activities such as promotion of attractive niche markets for solar photovoltaics and innovative tender models.

(L to R) Co-Chair Dr. Christine Falken-Grosser (BMWi), Dr. Jürgen Welschhof (KfW), Co-Chair Shri Amitesh Kumar Sinha (MNRE), Dr. Nicole Glanemann (BMWi), Ms. Sophia Engel (BMU), Mr. Philipp Knill (BMZ).
©IGEF-SO



IGEF Subgroup III Meeting

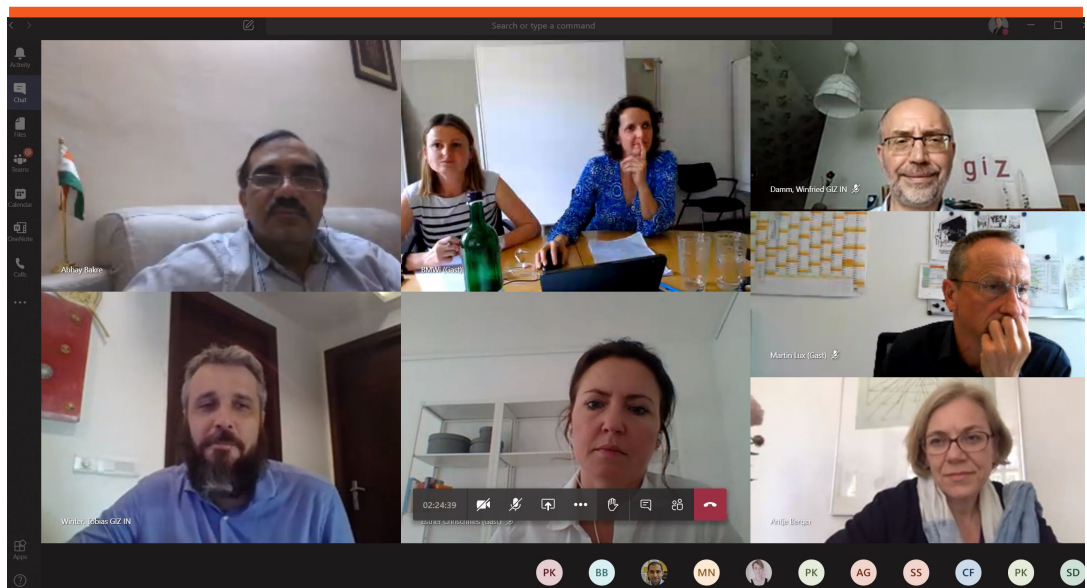
17 June 2020 | Virtual Meeting

On 17 June 2020, the first Subgroup III meeting of the year on Energy Efficiency under the Indo-German Energy Forum (IGEF) took place via video conference. It was co-chaired by Dr. Christine Falken-Grosser, Head of Division Bilateral Energy Cooperation, Federal Ministry for Economic Affairs and Energy (BMWi), Govt. of Germany and Shri Abhay Bakre, Director General, Bureau of Energy Efficiency (BEE), Ministry of Power (MoP), Govt. of India. The meeting was attended by representatives of the Federal Ministry for Economic Cooperation and Development (BMZ), Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU), Embassy of the Federal Republic of Germany, Confederation of Indian Industry (CII), KfW Development Bank, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and IGEF Support Office.

The Co-Chairs briefed each other on recent developments in the energy efficiency sector with focus on green recovery measures of their respective countries. Co-Chair Dr. Falken-Grosser informed the participants about the opportunities for a green recovery in Germany. Co-Chair Shri Bakre gave insights about the regulatory framework of the Energy Efficiency Act in India to further drive energy efficiency policies in the future. Beyond that, presentations were held on CO₂-Pricing by Ms. Esther Chrischilles (BMWi), and on the new German hydrogen strategy by Mr. Simon Koesler (BMWi). Furthermore, Mr. Winter, IGEF-SO reported on the current status of activities under the IGEF Subgroup III.

Dr. Falken-Grosser and Shri Bakre both expressed gratitude for the fruitful cooperation and are looking forward to implementing the jointly agreed activities around energy efficiency in steel, innovative international best practice energy efficiency policies and others.

(L to R) Co-Chair Shri Abhay Bakre (BEE), Dr. Nicole Glanemann (BMWi), Co-Chair Dr. Christine Falken-Grosser (BMWi), Dr. Winfried Damm (GIZ), Martin Lux (KfW), Tobias Winter (IGEF-SO), Esther Chrischilles (BMWi), Dr. Antje Berger (DBO New Delhi). ©IGEF-SO



IGEF Subgroup IV Meeting

16 June 2020 | Virtual Meeting

On 16 June, a virtual meeting was held between the Co-Chairs of the Indo-German Energy Forum (IGEF) Subgroup IV “Green Energy Corridors”, Ms. Anu Mathai, Adviser of the Department of Economic Affairs (DEA) and her German counterpart, Mr. Philipp Knill, Head of India and South Asia Division of the Federal Ministry for Economic Cooperation and Development (BMZ). The objective of the Subgroup meeting was to introduce the Co-Chairs to each other, to familiarise the new Indian Co-Chair with IGEF and with the topics of Subgroup IV on Green Energy Corridors (GEC), and lastly, to take stock of ongoing discussions as well as of challenges ahead. The German support programs on combating the effects of the ongoing COVID-19 pandemic in India were also touched upon. Hereafter, Mr. Knill, BMZ outlined the history and

status of the ongoing Indo-German cooperation on GEC for which BMZ through KfW development bank had provided concessional financing to Indian partners amounting to EUR 1 billion. He also informed the Indian Co-Chair of the additional funds committed by Germany to India for further GEC projects comprising EUR 400 million and concluded with the challenging deadlines connected to some of the GEC II commitments. Both sides reiterated their full commitment to GEC and agreed on next steps, especially with regard to the open questions concerning the financing structure of GEC II. As a result of the decisions taken during the meeting, a call between a bigger group of relevant Indian and German officials took place on 26 June 2020 in which the way forward on GEC II was discussed and agreed upon.



Aatmanirbhar Bharat – Opportunities in Renewable Energy Manufacturing

16 June 2020 | Virtual Meeting

India has expanded solar capacity 16 times from 2014 quantum of foreign investments in this growth is huge” Hon’ble Minister of State for Power, New & Renewable Energy and Skill Development, Shri Raj Kumar Singh said at the digital conference and exhibition “Aatmanirbhar Bharat - Opportunities in Renewable Energy Manufacturing” organized by The Confederation of Indian Industry (CII). The Confederation of Indian Industry (CII) organised a digital conference and exhibition “Aatmanirbhar Bharat - Opportunities in Renewable Energy Manufacturing” with the Indo-German Energy Forum (IGEF) as its country partner on 16 July 2020. The sessions included discussions on building up a domestic supply chain for renewable sector, storage solutions, raising finances, research and skilling requirements and also addressed the key issues in the growth of this sector.

The Conference counted more than 3000 visitors, 50+ Speakers, 4 Union Ministers, 1 State Minister. Some very key announcements were made by the Government represented by leading Federal Ministers like Mr. Piyush Goyal, Mr. Nitin Gadkari, Mr. R K Singh, Mr. Anurag Singh Thakur and the Gujarat State Minister Mr. Saurabh Bhai Patel. Railways moves towards 100% electrification in next 3 years, and 100% clean energy in the next 7-10 years. India will become the first country to have 100% clean energy Railways said Hon’ble Minister Shri Piyush Goyal, Minister of Railways & Commerce & Industry. Leading international institutions and corporates actively participated in the conference. The digital exhibition saw dozens of companies being present.

More information [here](#).



German Booth by IGCC and IGEF-SO at REI E-Expo 2020

9 June 2020 | Virtual Trade Fair

In collaboration with the Indo-German Chamber of Commerce (IGCC), Indo-German Energy Forum (IGEF-SO) organised a German booth at the virtual Renewable Energy India E-Expo on 9 June 2020. The virtual trade fair focused on renewable energy technologies and served as a platform for stakeholders to get in contact and exchange their knowledge. More than 35 German companies were represented at the German booth. Over 860 participants visited the common booth and had the chance to get insights into PV niche markets such as Agrophotovoltaics (AgroPV).

The trade fair was inaugurated by, among others, Hans-Josef Fell, President of the Energy Watch Group and former member of the German Parliament. In the following conference, the visitors had the chance to participate in several sessions on current topics in the energy sector. Discussions by international leaders on future challenges and how to handle them, were amongst the interactive highlights of the event. IGEF-SO participated actively in the conference as speaker and supporter of the same.

Virtual booth of the
Indo-German Chamber of
Commerce and the IGEF-
SO at the Renewable
Energy India E-Expo.
© IGEF



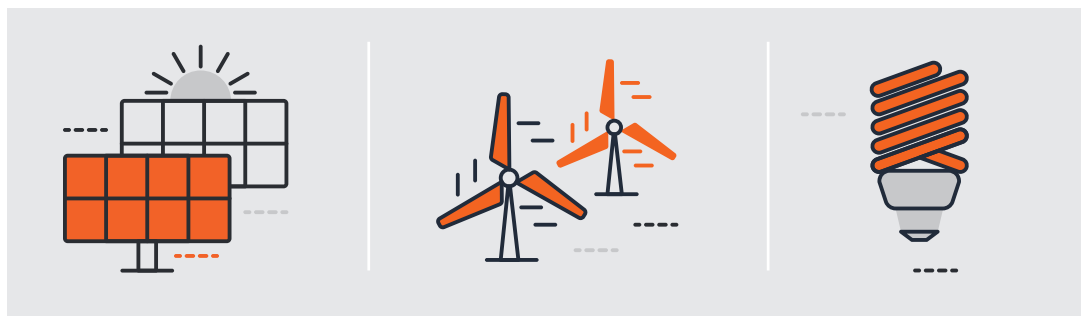
Webinar on Renewable Auctions Revisited – Learnings from European Experiences

26 June 2020 | Webinar

On 26 June 2020 AURES II research project and the Strommarkttreffen network jointly organised a webinar on renewable energy auctions. The speakers presented how countries, mainly in Europe, test new tender design approaches to reflect changing policy objectives and opportunities. These include, for instance, increasing the market compatibility of renewable energy support, procuring renewables and storage jointly, promoting energy communities, and enabling market clearing in “zero-subsidy” situations. Amongst the speakers was Mr. Tobias Winter, Indo-German Energy Forum (IGEF-S0), who gave a brief talk on India's first 24/7 renewable energy tender linking renewables with energy storage solutions. India has great potential to generate electricity from solar and wind. “Somewhere in India the sun is always shining,” said Mr. Winter. With 365 days of sunshine India does not rely on seasonal storages and mainly only has to store solar power for the same upcoming evening and night. In most Indian states the electricity demand is

highest at night, especially during the summer months, when air conditioners are being used. This is when sunlight is not available, a reason why coal fired power plants are still being planned in India. To make renewable energy more attractive for utilities, recently the Government decided to introduce 24/7 hour tenders and split them into peak-time tariffs and off-peak time tariffs. Selected bidders can now generate from solar, wind or hybrid power and couple those solutions with any storage technology to make renewable energy available during peak demand times at night. First, tender results have shown that the mixed price calculation with higher tariffs at night and lowest solar and wind tariffs during the day is competitive with coal. The mixed prices are the same price or even below the cost for power from new coal.

More information can be found [here](#).



Webinar on Future of Distributed Home Storage Systems in India

26 May 2020 | Webinar

On 26 May the Indo-German Energy Forum (IGEF-SO) together with the India Energy Storage Alliance (IESA) co-organised an open online seminar on "Future of distributed home storage systems in India". The seminar was highly informative and attended by over 300 participants across industries. Experts highlighted global and Indian market updates and future potential for distributed home storage systems.

The webinar was opened by Dr. Rahul Walawalkar, President of IESA. IGEF-SO addressed the global market scenario for home storage systems. Mr. Winter gave insights into suitable battery chemistries for home storage and costs incurred, upcoming business models and drivers, followed by a market outlook for India. Systems to facilitate self-consumption of solar energy in the residential and the commercial sector already deployed in different parts of the world were presented. Different solar and battery companies have recently ventured into this business transforming themselves more and more into utilities. By

bundling thousands of batteries installed in the facilities of different clients, also called Virtual Power Plant concept, these companies can then also participate in the electricity exchange and offer several grid balancing products. This is developing fast in countries where more than one utility per geographical location is legally permitted which allows innovative players to come up with new ideas quickly. While German citizens prefer to choose between hundreds of electricity service providers at one geographical location, in India there is always only one to choose so far.

Dr. Rahul Walawalkar, President, IESA highlighted the importance of energy storage and market potential, while creating the energy storage roadmap for India. He comprehensively covered the suited battery chemistries and their price trend. With his presentation, it was made clear that India is a large and evolving market with the adoption of new and modern energy storage technologies also for rooftop solar. As per Mr. Walawalkar the Indian Market would be big enough to justify early investments in even cell manufacturing in India itself.

Mr. Gautam Mohanka, CEO, Gautam Solar and Galo Energy highlighted the Lithium battery storage for residential purpose and rural energy access. For the last 20 years, Galo Energy has been a manufacturer for, to name a few, solar lithium batteries, solar home systems, and solar pumps.

More information and presentations can be downloaded [here](#).



IESA- IGEF open webinar on Future of distributed home storage systems in India Date- 26 May 2020 | Timing- 2.00 to 4.00 pm IST

SPEAKERS



Dr. Rahul Walawalkar
President,
India Energy Storage Alliance



Tobias Winter
Director,
Indo-German Energy Forum



Gautam Mohanka
CEO,
Galo Energy

For Registrations visit- www.indiaesa.info
IESA Contact-Devyani Salunkhe; +91 9975710139; event@indiaesa.info
IGEF Contact- Madhuri Negi; +91 11 4949 5353; communications@energyforum.in

Powered by-  Media Partner 



Speakers from IESA,
IGEF-SO and Galo Energy.

Webinar on Business Opportunities for AgroPV in India – Learnings from Europe and India

22 May 2020 | Webinar

Together with the National Solar Energy Federation of India (NSEFI), the Indo-German Energy Forum (IGEF-SO) organised an online seminar on “Business opportunities for Agrophotovoltaics (AgroPV) in India – Learnings from Europe and India” on 22 May 2020. On this occasion, the study on “Feasibility and Economic Viability of Horticulture Photovoltaics”, financed by the German Federal Ministry for Economic Cooperation and Development (BMZ) through the German Development Bank (KfW), was digitally published (access [here](#)).

Mr. Sinha, Joint Secretary of the Ministry of New and Renewable Energy (MNRE) and Co-Chair of IGEF Subgroup II inaugurated the event. In his keynote address on “Vision for Photovoltaics on Agriculture in India”, he elucidated the national PM-Kusum Scheme, which focuses on the energy needs and income of farmers, environment protection and water conservation and explicitly permits the installation of solar

PV on agriculture land. “On the basis of this scheme, various state governments across India are coming up with their own models that target solar PV use on agriculture in a big way”, he said, pointing towards a promising future for AgroPV in India.

Over 170 participants gained insights on the opportunities and challenges of dual and resource-efficient land use for solar power generation and agriculture through presentations by Mr. Trommsdorff, Fraunhofer ISE, Mr. Krause-Tünker, Next2Sun, Dr. Santra, Central Arid Zone Research Institute (CAZRI) and Mr. Winter, IGEF-SO. Furthermore, current research and development results on existing AgroPV plants worldwide, on water harvesting systems for AgroPV plants in India and on vertical AgroPV plants in Europe were presented and discussed in the online seminar.

More information and presentations can be downloaded [here](#).

Speakers from MNRE, NSEFI, Fraunhofer ISE, CAZRI, Next2Sun and IGEF-SO.



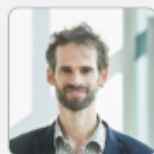
Special Address
Shri Jeevan K. Jethani
Director, MNRE
Govt. of India



Keynote Address
Shri Amitesh K. Sinha
Joint Secretary, MNRE
Govt. of India



Welcome Remarks
Shri Pranav R. Mehta
Chairman, National Solar
Energy Federation of India



AgroPV in Germany
Mr. Max Trommsdorff
Programme Manager AgroPV
Fraunhofer ISE



Experiences with PV and Water Harvesting Systems
Dr. Priyabrata Santra
Principle Scientist, CAZRI



Vertical AgroPV in Europe
Mr. Sascha Krause-Tuenker
CFO, Next2Sun GmbH



AgroPV Worldwide
Mr. Tobias Winter
Director, IGEF-SO

Webinar on Flexibilisation of Coal Fired Power Plants

30 April 2020 | Webinar

On 30 April 2020, VGB PowerTech e.V. organised a webinar on the topic “Flexibilisation of Coal Fired Power Plants” with the support of the Indo-German Energy Forum (IGEF-S0). The flexibilisation of coal-fired power plants allows a partial ramp down of power generation during certain times of the day. The ramp down of coal-fired power plants may be done during midday, for instance, so that solar power can take precedence in the grid. Coal would then ramp up during peak demand at night again if no hydro or wind is available.

In her presentation “International best practices on flexibilisation of coal fired power plants – when flexibility became more important than efficiency”, Dr. Weise from VGB PowerTech e.V. gave an introduction to the topic and presented examples from all over Europe. Mr. Sinha gave insights into ground experiences with flexible operation and illustrated examples of best practices in flexibilisation in India. In total, over 110 people attended the webinar. More information and presentations can be found [here](#).



Webinar “Flexibilisation of Coal Fired Power Plants”

Thursday, 30th April 2020 from 3:00 - 4:30 pm IST



International best practices on flexibilization of coal fired power plants – when flexibility became more important than efficiency.

Dr. Claudia Weise, VGB PowerTech e.V.



On the ground experience with flexible operation in India – results of minimum load test runs and recommendations for the plant operator of the future.

Mr. A.K. Sinha, Task Force Flexibility, Indo-German Energy Forum

Webinar on Fast Ramping of Coal Fired Power Plants

15 May 2020 | Webinar

Upon demand in India for another in-depth webinar, VGB PowerTech e.V. together with the Indo-German Energy Forum (IGEF-SO) organised a webinar on “Fast Ramping of Coal Fired Power Plants” on 15 May 2020. Faster ramp rates and stable minimum load operation enable coal fired power plants to adapt to the new energy mix. Dr. Weise of VGB PowerTech e.V. gave a brief introduction on the topic “Introduction to fast ramping of coal fired power plants”, whereby she particularly referred to experiences in Germany. In his lecture “Improved Ramp rates of steam power plants”, Mr. Chittora from Siemens

focused on the technical feasibility and the economic efficiency of a flexible operation of coal-fired power plants. Mr. Mallick, technical director of the Central Electricity Authority (CEA), concluded the webinar by moderating the Q&A session where he stressed: “It is very important that we can operate our plants flexibly. With increased share of renewables, we need a flexible operation and fast ramp rates”. About 170 people attended the webinar.

More information and presentations can be found [here](#).



Webinar “Fast Ramping of Coal Fired Power Plants”

Friday, 15th May 2020 from 3:00 - 4:30 pm IST



Introduction to fast ramping of coal fired power plants

Dr. Claudia Weise, VGB PowerTech e.V.



Best practice in fast ramping in Europe and feasibility in the context of Indian boiler design and coal with high ash content

Mr. Sandeep Chittora, Siemens Power India

MIIM Webinar on Indian Renewable Energy

30 April 2020 | Webinar

On April 30 2020, the Embassy of India in Berlin organised a webinar on “Indian Renewable Energy Opportunities” together with the Indo-German Energy Forum (IGEF-SO) as part of the initiative “Make in India Mittelstand (MIIM)”. German companies from the renewable energy sector were provided with insights into the Indian renewables market as well as the hurdles for a market entry.

Mr. Anup Barapatre, EAC International Consulting presented “India Renewable Energy Opportunities” to the participants. Ms. Ursula Hoffmann, Roedl & Partner gave her input on “Investing in Renewable Energies in India – Overview of the Legal Framework”. IGEF-SO presented attractive niche markets for

photovoltaics, wind and battery storage to the participants. Especially the commercial sector with a high penetration rate of diesel gensets was identified as becoming more and more attractive. As per recent estimates more than 120 GW of diesel gensets are being installed in India presently. Solar and battery technology may replace these gensets almost entirely within just 10 to 15 years. Additionally, amongst others, further support programmes such as the Energy Export Initiative of the German Federal Ministry for Economic Affairs and Energy (BMWi) were presented.

For more information visit [MIIM website](#). The presentation can be found [here](#).



International Cooperation in Indian Solar Rooftop Sector - NSEFI Rooftop Stakeholder Interaction

8 May 2020 | Webinar

On 8 May 2020, the Indian solar association National Solar Energy Federation of India (NSEFI) celebrated its 8th anniversary. On this occasion, the federation organised a webinar to exchange views with their stakeholders on the Indian rooftop solar sector. High-ranking representatives from politics and industry took part in the webinar, amongst others, representatives of the development banks active in India. The key discussion points were on the challenges that the Indian rooftop sector faces and how development agencies can intensify their existing cooperation, understanding the plans and strategies of various development agencies about India's rooftop sector, and

exploring areas of cooperation between NSEFI (members) and such development agencies. Several NSEFI initiatives were presented during the session by representatives from SunSource Energy, Amplus Solar, Neev Fund, the World Bank and GIZ. IGEF-SO elaborated on various initiatives IGEF is taking up in India in partnership with NSEFI including promotion of Agrophotovoltaics (AgroPV) and implementation of international best practices in Operations & Maintenance (O&M) of photovoltaic power plants in India.

For more information visit NSEFI [website](#).



International Cooperation in Indian Solar Rooftop Sector

NSEFI Rooftop Stakeholder Interaction with
International Development Agencies

8th May, 2020

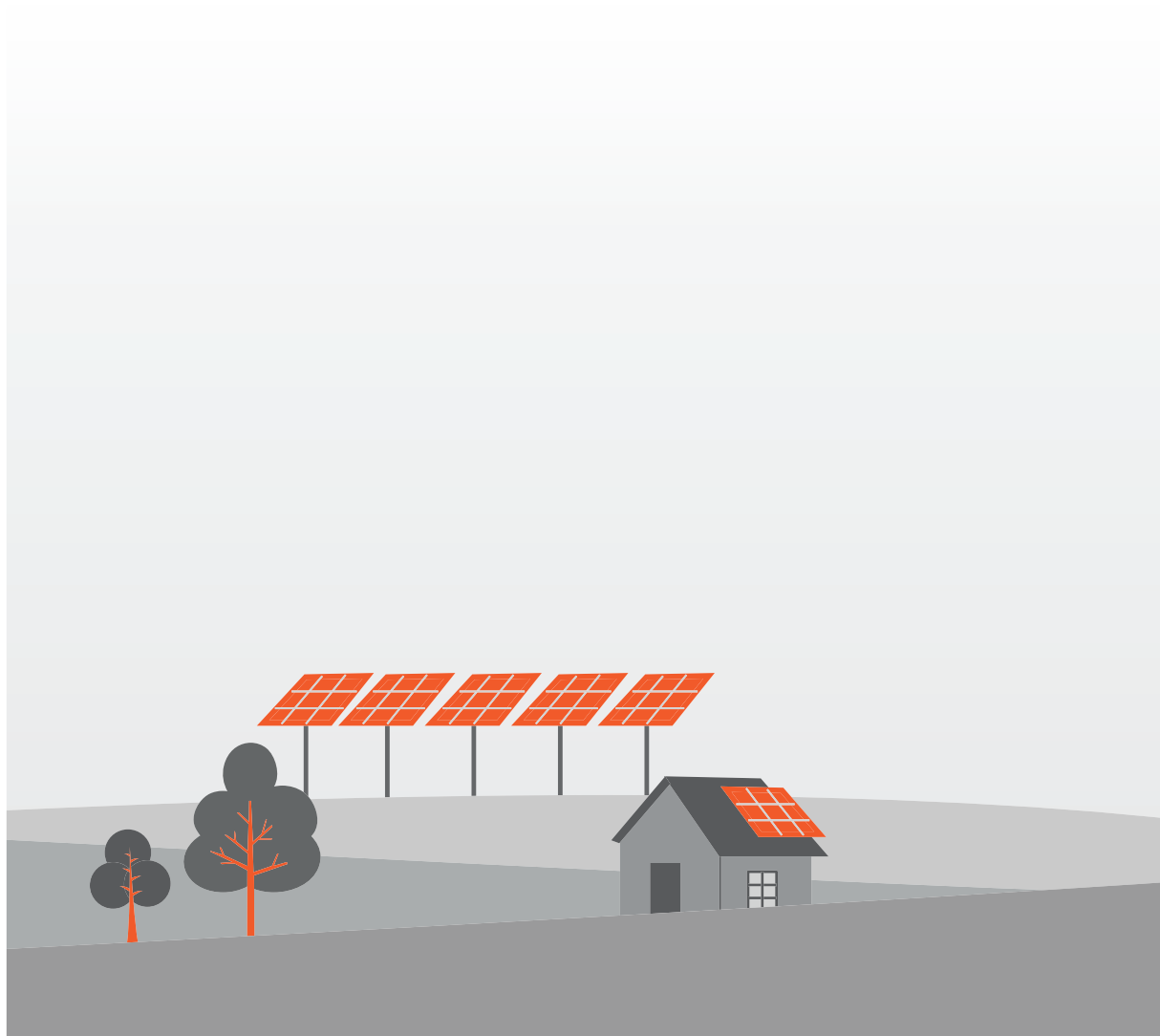
IGCC Webinar on Renewable Energy Technologies from Germany for Industrial Application

26 May 2020 | Webinar

On 26 May 2020, the Indo-German Chamber of Commerce (IGCC) organised an energy briefing for the participating German companies from the solar and bioenergy industry as part of the virtual business delegation visit “Renewable Energy Solutions - Solar and Bioenergy”. German participants presented their products and services while experts from both India and Germany held presentations, explained market developments, current scenarios and future developments. They particularly emphasised

that India has great potential for solar and wind energy. IGEF-SO shared insights on the energy market and price developments for various energy resources in India. After the presentations, one-on-one meetings between German and Indian companies were organised by IGCC in order to enable the companies to deepen their exchange and business relations.

More information can be found [here](#).

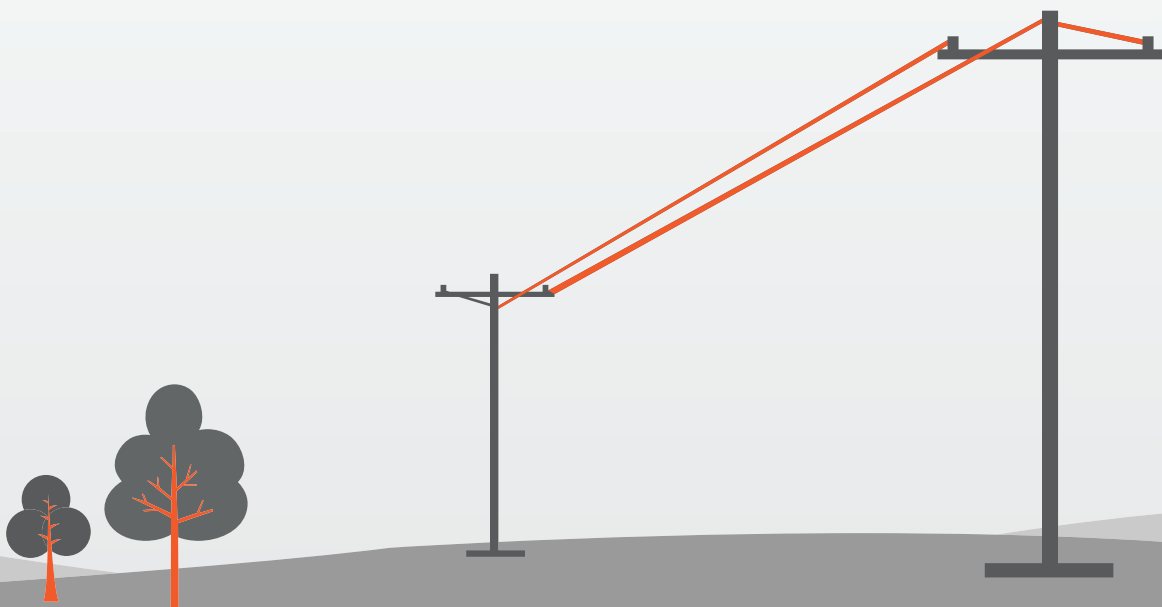


IESA Web Conference on Clean Energy and Transportation: Key to fight Climate Change

22 April 2020 | Web Conference

On 22 April 2020, on the occasion of “Earth Day”, the India Energy Storage Alliance (IESA), with institutional support from the Indo-German Energy Forum (IGEF-SO), organised a web conference on “Clean Energy and Transportation”. More than 300 participants received full-day presentations on the topic from 13 different

speakers. Amongst others, Shri Upendra Tripathy, Director General of the International Solar Alliance and Mr. Dayanand Jagdale, Head of International Affairs at the Ministry of New and Renewable Energy (MNRE) were invited to speak. More information can be found [here](#).





3

Developments in Indo-German Energy Cooperation

Germany supporting India with NDC Transport Initiative funded by International Climate Initiative

May 2020 | New Delhi, India

NDC Transport Initiative for Asia (NDC TIA) is a regional project that aims at promoting a comprehensive approach on decarbonizing transport, i.e. a coherent strategy of effective policies that are coordinated among various sector ministries, civil society and the private sector. As a regional initiative, the project aims to disseminate knowledge also in other Asian countries. On the global level, it will disseminate and share experiences in the UNFCCC process. The project is a joint collaboration of seven organizations – Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, International Council on Clean Transportation (ICCT), World Resources Institute (WRI), International Transport Forum (ITF), Agora Verkehrswende (AGORA) Germany, Partnership on Sustainable, Low Carbon Transport (SLoCaT) Foundation, and Renewable Energy Policy Network for the 21st Century e.V. (REN21).

The India component of the project will focus on creating a national stakeholder platform that has the capacity to formulate pathways on decarbonising transport in India based on technical assistance. Additionally, it will focus on electric mobility domain in terms of improvement in policy and procurement

frameworks for Electric Vehicles and charging infrastructure. Key activities planned under the project cover topics such as transport modelling and advancing modelling capacities in India, technical support to the national stakeholder platform, contribution of Indian stakeholders to global/Asian best practice exchanges, integration of EV charging infrastructure into the electrical network, analysis on EV supply and demand side policies to support relevant stakeholders in developing appropriate policy instruments, EV cost benefit analysis tools etc. One initiative already started by GIZ is a single window platform for knowledge repository on e-mobility and low emission transport, in the form of a Digital Knowledge Library (DKL). The DKL will act as a national knowledge and information compendium keeping relevant stakeholders, information-seekers, educators, scholars, and general public up to date about the developments in the e-mobility and low emission transport at large. It will include resources such as policy and regulations, government notices, research papers, journals, published reports, latest news, relevant databases in the domain.

To get to know more about this project kindly email Dr. Mitra at indradip.mitra@giz.de.

Germany to Support India Evaluate Optimal Power Balancing to Meet Renewable Energy Plans by 2022

25 May 2020 | Mangaluru, India

The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) has contracted the Norwegian company DNV GL, the world's largest resource of independent energy experts and certification body to conduct a major control reserve study for the southern region of India.

It is the first control reserve study to be conducted in this part of the world and aims to quantify the control reserve requirements that are needed to balance the energy supply from wind and solar and energy demand, according to the renewable energy plans of India's southern states by 2022.

In 2016, the Ministry of New and Renewable Energy (MNRE) announced one of the world's largest renewable energy expansion programs, with the stated aim of generating 175 gigawatts (GW) of green power by 2022. This is planned to include 100 GW of solar and 60 GW of wind power. India is already one of the world's leading clean-energy producers, with an installed renewables capacity of 83 GW, 31 GW under development and a further 35 GW out for tender, according to the World Economic Forum (WEF).

The study is a further element in India's drive towards expanding renewable energy. It forms a part of the Indo-German Energy Programme (IGEN), a joint initiative of the German Ministry of Economic Cooperation and Development (BMZ) and the Ministry of New and Renewable Energy (MNRE) implemented by GIZ India.

The study was carried out on behalf of the Southern Regional Power Committee (SRPC), Govt of India, covering the states of Kerala, Tamil Nadu, Karnataka, Telangana and Andhra Pradesh.

"India is a regional and global industrial powerhouse, consuming more than 6600 Terawatt-hour (TWh) of energy every year. Hence, its plan to grow renewable energy is both bold and promising. Because of these factors, this study proves to be a key step towards ensuring the quality of the energy supply within this plan," says Markus Wypior, officer for implementation at GIZ.

"India is in the midst of a very ambitious journey that will put it at the forefront of the global energy transition. This study, implemented for the southern states, with support from GIZ, would serve as a prime example of the Indian government's commitment to making this journey a success. DNV GL is proud to play an active role in enabling the country's green energy transition. The expertise from our 2,300 energy experts around the globe will be of great value for India," said Nicolas Renon, executive vice president Asia Pacific (APAC) at DNV GL – Energy.

For the study, DNV GL utilised its Renewable Energy Integration Study and Control Reserve Dimensioning Services to quantify the secondary and the tertiary control reserve requirements that will enable optimal sharing of power between the states. Dimensioning of the states' control reserves will help ensure efficient and cost-effective integration of large-scale renewable energy supplies. DNV GL will provide recommendations to SRPC for control reserve requirement identification based on the final report.

Source: [The Times of India](#)

Delegation Visit from Germany on Solar PV, Concentrated Solar Power (CSP) and Bioenergy

25 - 29 May 2020 | Online

The Indo-German Chamber of Commerce (IGCC) organised a business delegation visit to India, from 25 - 29 May 2020, with a focus on Renewable Energy Technologies (Solar PV, CSP and Bioenergy) for industrial applications. This was supported by the German Federal Ministry for Economic Affairs & Energy (BMWi) under the Energy Solutions – made in Germany Initiative. The German firm Eclareon GmbH was in charge of identifying the right German companies with solutions offered which would be highly relevant for India but also applicable. The delegation was conducted virtually due to the COVID-19 pandemic.

The four participating companies from Germany were: Enerbar GmbH, offering rooftop solar PV plants, energy storage solutions, SunOyster Systems GmbH, providing solar power generation, heating and cooling in an integrated system, Bioenergy Concept GmbH, offering conceptualisation, planning and development of biogas projects and Binder GmbH, offering products for biogas measurement, analysis and monitoring systems.

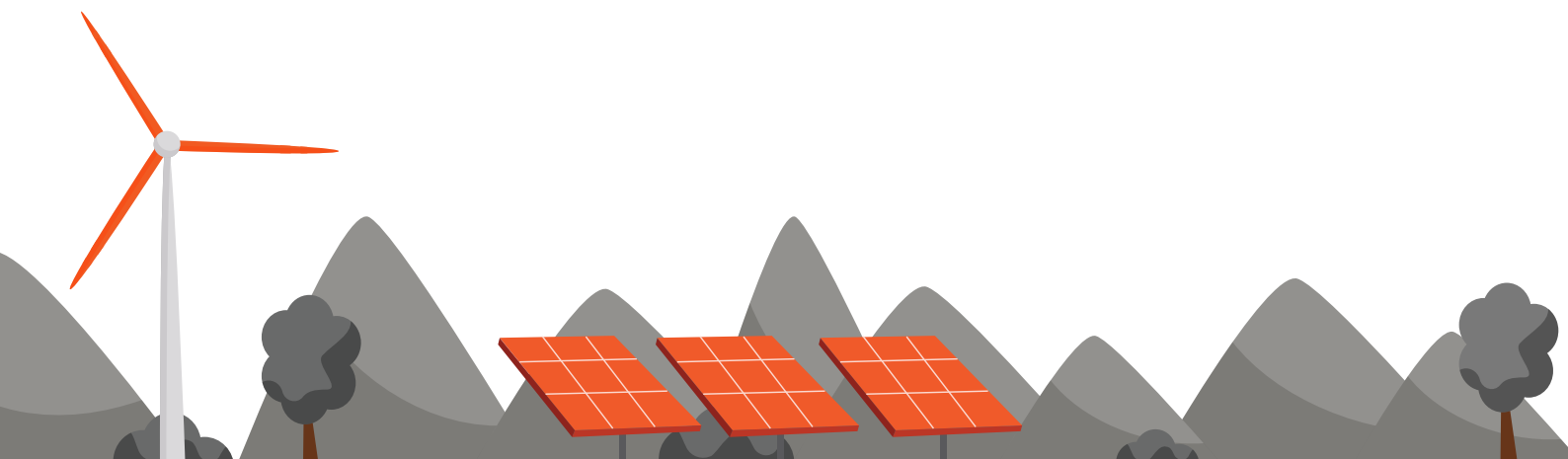
During four days, IGCC organised meetings with potential business partners from various renewable energy sector companies. The German companies from both the sectors of solar and bioenergy received enthusiastic responses.

During the webinar held on 26 May 2020, the participating German companies had an opportunity to showcase their technologies. Additionally, experts from Germany and India participated in the event to provide a comprehensive overview of the German and Indian markets in the solar and bioenergy sector.

This included presentations by Bridge to India, German Solar Association (BSW), International Biogas and Bioenergy Competence Center (IBBK), Germany, Indian Biogas Association (IBA) and United Nations Industrial Development Organisation (UNIDO).

Conducting the first virtual delegation has been an exciting learning experience for IGCC. The Indian and German companies were very appreciative of the quality of the event, despite the challenging situation. As a trusted partner to both the government and the business community, IGCC will be offering more such opportunities in the future.

Profiles of the companies and experts can be viewed [here](#). For additional queries, please contact Ms. Dipti Kanitkar on dipti.kanitkar@indo-german.com.



4

Quote of the Month from India and Germany

Quote of the Month from India



Shri Narendra Modi,
Prime Minister of India



India's exemplary progress in the field of solar energy would be a major source of interest to the world." He said owing to such major steps, "India is being considered the most attractive market of clean energy."

Source: PIB

Quote of the Month from Germany



Peter Altmaier,
Federal Minister for Economic
Affairs and Energy (BMWi)



The time for hydrogen and the technologies enabling its use has come. We must, therefore, harness the potential for economic output, employment, and the climate, and do this now. Hydrogen will be a key feedstock for a successful energy transition."

Source: BMWi

5

Energy Transition News

National Hydrogen Strategy of Germany Adopted

Germany has high hopes for hydrogen as a key element in the further development of the energy transition. For this a national strategy has been finalised.

It was worked on until the very end, now it is finally decided. On 10 June 2020 the Federal Cabinet approved the National Hydrogen Strategy, thus paving the way for 38 measures which, among other things, are to ensure that Germany plays a pioneering role internationally in the development and export of hydrogen technologies.

"Today we must set the course for Germany to become the world leader in hydrogen technologies", said Federal Minister of Economics Peter Altmaier in the run-up to the meeting.

Thanks to its many possible uses, hydrogen is considered a key element in the energy turnaround. Electricity from renewable energies and greater energy efficiency will remain the two central pillars of the energy turnaround in the future. Following the nuclear phase-out and the planned phase-out of coal-fired power generation, the energy turnaround must

now be further developed. Gaseous and liquid energy sources are an important part of the energy system in an industrialised country like Germany and will remain indispensable in some areas of industry and transport in the long term. Against the background of rising climate protection ambitions, Germany, therefore, needs environmentally friendly and long-term available alternatives to fossil fuels such as coal, oil and gas if the energy system transformation is to succeed. To achieve this, the possibilities of direct renewable electricity supply and energy efficiency in Germany must first be exploited. In certain areas, however, these are limited.

With climate-friendly produced hydrogen, CO₂-emissions can be significantly reduced in areas that cannot do without liquid or gaseous energy sources. Hydrogen can be used, for example, as a raw material in the chemical and steel industries or as a fuel in fuel cells. Whenever the direct use of electricity from renewable sources is not possible, hydrogen can help. By producing "green" hydrogen with renewable electricity and water (electrolysis process), renewable energy can also be stored and transported.

© Adobe Stock / Focused



38 measures to ensure that Germany plays a pioneering role internationally

With its own hydrogen strategy, Germany is pursuing several goals: Hydrogen technologies and CO₂-free energy carriers are to become key elements of the energy turnaround in order to reduce greenhouse gas emissions in areas that cannot be decarbonised in any other way and make them independent of fossil fuels. The strategy aims to develop domestic markets for the production and use of hydrogen, i.e. to enable a so-called market ramp-up. In order for this to succeed, the strategy promises a suitable mix of investment support, operating cost relief, energy policy framework conditions and CO₂ pricing. "Potential for Germany lies along the entire value-added chain," says the strategy. The focus is on areas that are already close to economic viability or cannot be otherwise

resolved from fossil fuels with the current state of the art (also known as decarbonisation). These include industrial and transport sectors such as aviation, shipping or long-distance haulage.

Such measures are intended to reduce the costs of developing and using hydrogen technologies in order to create global markets for hydrogen. The hydrogen strategy can thus also strengthen the competitiveness of German companies. Research, development and technology export is to be promoted. After all, in addition to climate protection, hydrogen technologies are also about jobs and a worthwhile global market. Hydrogen and its synthetic derivatives will play an important role worldwide in the future. Together with other member states of the European Union (EU) and international partners, Germany, therefore, wants to shape a global hydrogen market.

Extensive support for the use of hydrogen

German companies have long been very innovative and successful in this field – for example in electrolysis (which can be used to produce CO₂-free hydrogen) or in the development and production of fuel cells. EUR 445 million in funding are to be made available for the use of hydrogen in the industry by 2024. In addition, nine billion euros have just been approved by the coalition committee as part of a comprehensive economic stimulus package. Out of that, two billion euros are dedicated to the "international dimension" of hydrogen. The remaining seven billion are intended to strengthen the entire hydrogen value chain. In the field of research and development, 100 million euros per year will be made available until 2022 for the so-called real laboratories of the energy turnaround, many of which will conduct research on hydrogen technologies. The BMWi ideas competition "[Real Laboratories of](#)

[the Energy Turnaround 2019](#)" was also primarily dedicated to hydrogen technologies. In addition, further application-oriented research projects, such as the "[Metha-Cycle](#)" project, are to be expanded. There, a research team is currently examining a new system for handling green hydrogen in practical tests.

However, one of the most important goals of the hydrogen strategy is to develop and secure the national supply of CO₂-free (green) hydrogen. This is because its production is still very expensive and only possible on a small scale. The infrastructure is still lacking to store the hydrogen safely on a large scale over a long period of time, transport it over long distances and distribute it. So for the time being, Germany will have to import a large part of its requirements for CO₂-free and CO₂-neutral hydrogen. (Where the differences lie, read [here](#))

Five gigawatts of electrolysis capacity for green hydrogen by 2030

By 2030, a hydrogen demand of about 90 to 110 terawatt-hours (TWh) is assumed. In order to promote the development of a strong domestic market, green hydrogen generation plants with a total capacity of up to five gigawatts (GW) are to be built in Germany by 2030, including the necessary energy generation at sea and on land. This ambitious target corresponds to an additional electricity demand from renewable energies of 20 TWh.

In order to cover the remaining demand, reliable partners for the production and transport of hydrogen as well as cooperation and import structures are needed, especially in the EU. This also offers the opportunity to expand the EU-wide

internal energy market and to cooperate with the sun and wind-rich developing countries (which have great potential in the field of renewable energy), the National Hydrogen Strategy continues. Germany could import the valuable green hydrogen from them in order to increase its own production. The gas infrastructure will also have to change for this and is the subject of the National Hydrogen Strategy.

The [Gas 2030 dialogue process](#) has also been dealing with the role of gaseous energy carriers in the context of the energy turnaround since the end of 2018. In October 2019, Federal Economics Minister Altmaier presented the first results.



6

Publications



Incentivizing Flexibility: The Role of the Power Market in Germany

This report describes the challenges associated with the operation of power systems with a high share of renewables and introduces the basic German balancing principles. Furthermore, direct and indirect incentives given to build and operate flexible power plants in Germany are described.

The report can be downloaded [here](#).



COVID-19: Impact on Global Solar Market

This report, produced with financial support from International Solar Alliance (ISA), examines the operational and financial impact of the COVID-19 pandemic on the solar power sector across the world. It assesses delays in construction progress, capacity addition outlook and financial challenges for players across the sector value chain.

The report can be downloaded [here](#).



COVID-19: Impact on Indian Renewables

This free report examines the operational and financial impact of the COVID-19 pandemic on the Indian renewable power sector. It assesses delays in construction progress, capacity addition outlook and impact on players across the sector value chain.

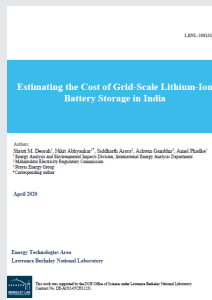
The report can be downloaded [here](#).



Augmenting Nature by Green Affordable New-habitat

The Compendium is a repository of technical, political and social solutions that can help professionals respond better to rising energy demands in the buildings sector, impact of climate change on our cities and ameliorating the stress on critical resources. The compendium also aims at furthering the discussions held during ANGAN 2019 and creating effective action to enhance the energy efficiency of buildings internationally.

The report can be downloaded [here](#).



Estimating the Cost of Grid-Scale Lithium-Ion Battery Storage in India

The report outlines the cost of grid-scale battery storage in India, the value that storage could add to the Indian grid, and the regulatory and policy framework. In India, the capital costs of stand-alone (four hour) grid-scale battery storage projects would be \$203/kilowatt-hour (kWh) in 2020 dropping to \$103/kWh by 2030. For co-located storage systems with solar PV, tariff adder for storing 25% of PV energy is estimated to be Rs. 1.44/kWh in 2020, dropping to Rs. 0.83/kWh in 2030. These prices make PV plus storage systems competitive with new coal assets operating at low capacity factors and could disrupt power sector planning. The report gives further insights into the capacity and energy arbitrage value of energy storage in India, as well as on regulatory and policy framework conditions.

The report can be downloaded [here](#).



State of the Global Mini-grids Market Report 2020

The report aims to raise awareness about mini-grids, mobilising investments in the mini-grid sector and serving as a benchmark to measure progress in the sector for decision-makers. It provides the latest updates on the global mini-grids market and highlights key trends in the industry that, together, can stand as the definitive source of information for stakeholders.

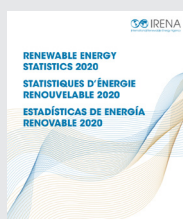
The report can be downloaded [here](#).



Project Impact: Impact of COVID-19 on Cities and Mobility

This white paper on Project IMPACT is an expert led global research on the impact of COVID-19 on cities and urban mobility. It summarises insights from surveys and interviews with over 550 industry experts globally on the future of urban development, mobility and digital connectivity.

The report can be downloaded [here](#).



Renewable Energy Statistics 2020

Renewable Energy Statistics 2020 provides data sets on power-generation capacity for 2010–2019, actual power generation for 2010–2018 and renewable energy balances for over 130 countries and areas for 2017–2018.

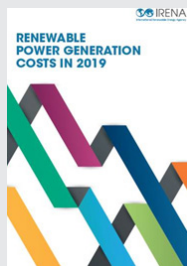
The report can be downloaded [here](#).



Renewables 2020 Global Status Report

The report shows that growth in renewable power has been impressive over the past five years. But too little is happening in the heating, cooling and transport sectors. Overall, global energy consumption keeps increasing, eating up the progress made in renewable generation. To make the switch, policy change is needed. The Global Status Report (GSR) 2020 shows that today's progress is largely the result of policies and regulations initiated years ago, which focus on the power sector. GSR 2020 provides a comprehensive overview of global developments in renewable energy markets, investments and policies in 2019. This year's report includes a feature chapter on citizen support for renewable energy projects.

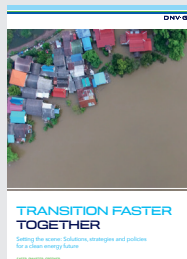
The report can be downloaded [here](#).



Renewable Power Generation Costs in 2019

Newly installed renewable power capacity increasingly costs less than the cheapest power generation options based on fossil fuels. The cost data presented in this comprehensive study from the International Renewable Energy Agency (IRENA) confirms how decisively the tables have turned.

The report can be downloaded [here](#).



Transition Faster Together

This report describes the measures to close the gap between their most likely forecast of 2.4 C down to 1.5 C. One measure would be to ten-fold growth in solar power increasing to 5 terawatts (TW) and a five-fold increase in wind power to 3TW by 2030, which would meet 50% of the global electricity use per year. In addition improvements in global energy intensity (the energy used per unit of output) need to increase by 3.5% per year within the next decade. Apart from other measures a fifty-fold increase in production of batteries for the 50 million electric vehicles needed per year by 2030, alongside investments in new technology to store excess electric energy and solutions that allow our electricity grids to cope with the growing influx of solar and wind power.

The report can be downloaded [here](#).



India's Clean Power Revolution

Thanks to Bloomberg Philanthropies this report gives the latest insights of Bloomberg New Energy Finance into India's Clean Energy Revolution outlining the current successes and future potential of India's clean energy economy. As nations seek to recover and restore economies in the wake of the COVID-19 pandemic, India's competitive clean energy auction market and impressive clean energy progress can offer lessons learned for economies looking to achieve a green recovery that maximizes economic, health, and environmental benefits. As this report outlines, investment in clean energy helps increase energy access and supply, creates jobs and fosters economic growth, and improves climate and air quality – providing health benefits we sorely need right now. Although challenges remain, India's renewable energy transition will serve as a model for transitioning economies all over the world. By learning from each other, we can continue to expand global investments in renewable energy, strengthen our economies, and achieve a sustainable, healthy future.

The report can be downloaded [here](#).

7

Upcoming Events

German Chancellor Fellowship for Tomorrow's Leaders at German Solar Association BSW in Berlin

The Alexander von Humboldt Foundation is searching for the leaders of tomorrow from India. The German Chancellor Fellowship offers you an opportunity to take the next career step in Germany – irrespective of your field of work. In order to apply, develop your own project idea and find a host of your choice to mentor you. Once your host has confirmed, you can apply for a fellowship. German Solar Association BSW in Berlin has already offered to be a host for you. The Chancellor of the Federal Republic of Germany is the patron of this fellowship programme. The Foundation grants up to 50 German Chancellor Fellowships annually – up to ten for each country.



Alexander von Humboldt
Stiftung/Foundation

If you are interested in a fellowship with the German Solar Association BSW you should get in touch with Mr. Knaack (knaack@bsw-solar.de). If you have any questions regarding the fellowship, contact info@avh.de. The deadline for applications is 15 September 2020.

For further information please click [here](#).

Senior Expert Service (SES)

As the Foundation of German Industry for International Cooperation, the SES works all around the world. Most of its voluntary assignments are completed in developing and emerging countries or in Germany.



The main beneficiaries of the SES network's expertise are small and medium-sized businesses, public authorities, professional and business associations, social and medical facilities, and institutions which provide basic education or vocational training. All SES assignments follow the principle of helping people to help themselves. Their aim is to share knowledge and experience in order to improve other people's future prospects. SES assignments are completed by voluntary experts and executives who are either retired or taking some time off work as part of the Weltdienst 30+ service. With its expertise, the SES strengthens local skills – in every industry and sector. SES assignments last for an average of four to six weeks. The maximum duration is six months. Follow-up assignments can be arranged at any time. The [costs](#) vary depending on the length of the stay and the destination. The SES checks on a case-by-case basis whether some or most of the costs can be covered using funds from the German Federal Ministry for Economic Cooperation and Development (BMZ).

For further information please click [here](#).

Global Energy and Utilities Digital Week

10 August 2020 | Virtual Conference

With countries facing unprecedented social and economic challenges, what will be the impact on the energy transition in the post COVID-19 world? Informa Markets is using its global reach to bring thought leaders and decision makers from across the globe together for an interactive digital week to discuss the challenges and opportunities facing the energy and utilities sector. Global Energy Digital Week is an opportunity to connect with the industry, demonstrate thought leadership, increase brand awareness and generate qualified leads. The content rich agenda features four days of interactive webinars, market outlooks and podcasts to provide the industry with the essential information needed to adapt to the new reality.



This new digital experience is an opportunity to highlight new products and thought leadership and generate leads for companies via Informa Markets global network of 500,000+ energy professionals.

For further information and registration please click [here](#).

2nd Edition of Renewable Energy India E-Expo

2 - 3 September 2020 | Virtual Conference

On 2 - 3 September 2020, the 2nd Edition of Renewable Energy India E-Expo will virtually take place. This time there will be even more exhibitor participation, knowledge sessions and content exchange. One of the sessions will be hosted by IGEF-SO.



The conference will cover a variety of subjects and topics which is the need of the hour and will evaluate the future.

- Conference aims to unfold & deliberate the strategies/ technologies/ policies defining the future
- Congregation of sector experts & stakeholders from across the globe
- The sessions will explore the VUCA of trends amidst challenges and opportunities
- Domain experts to discuss the roadmap to catalyse solar rooftop in India
- A landscape of AgroPV and floating solar to be discussed with the industry captains

The virtual trade fair will be free of cost for visitors. For more information and registration please click [here](#).

WB India Summit

11 September 2020 | Virtual Conference

On 11 September 2020 between 9:00 and 15:00 CEST the 1st WB India Summit will take place. The digital conference & community format, where business owners and entrepreneurs can exchange technical information and network in a targeted manner - both with focus on their individual business in India!



There will be top-class panel discussions, interactive workshops, matchmaking & networking with relevant business contacts and individual expert discussions on relevant topics that contribute to making businesses more successful in India.

Already announced are the following topics:

- "State of the (Indian) Union"- New times require new strategies.
- Does India have a future as a manufacturing location?
- Growth instead of crisis! Successful sales strategies, Post-COVID.
- Digitalisation & Industry 4.0 in India

Furthermore, the Indo-German Energy Forum (IGEF-SO) will be present at the event with a virtual booth and host an interactive workshop on "Competitive advantage: own power generation for industrial companies in India".

More topics will be announced soon. For further information and registration click [here](#).

3rd Global RE-Invest

14 - 17 October 2020 | New Delhi, India

The Ministry of New and Renewable Energy (MNRE), Govt. of India, is organising the 3rd Global RE-INVEST India-ISA Partnership Renewable Energy Investors Meet & Expo from 14 - 17 October 2020 coinciding with the third Assembly of the International Solar Alliance (ISA) on 15 October 2020.

RE-INVEST 2020, themed Innovations for Sustainable Energy Transition, will feature a three-day Conference and Expo. In view of COVID-19 and for contributing towards efforts to reduce global carbon footprint, the RE-INVEST 2020 related events, meetings, conference and exhibition will now be held on digital platforms. Hon'ble Prime Minister of India Shri Narendra Modi is likely to grace the Inaugural Ceremony.



For further information and registration please click [here](#).

India Energy Storage Week (IESW)

2 - 6 November 2020 | Mumbai, India

India Energy Storage Alliance (IESA) is organising its annual event India Energy Storage Week (IESW), which will be held from 2 - 6 November 2020 at Mumbai, India. The forthcoming edition of IESW is expected to attract global participation with an intent to facilitate bi-lateral trade, which will invite 20+ countries, 50+ regulators & policy makers, 200+ industry leaders, 100+ partners & exhibitors and 1000+ delegates.



For further information please click [here](#).

Green Urja Awards 2020

November 2020 (tbc)

The Indian Chamber of Commerce (ICC), along with The Energy and Resources Institute (TERI), as the knowledge partner, is instituting GREEN URJA AWARDS with



Indian Chamber of Commerce
Facilitating business since 1925



The Energy and Resources Institute

an overall goal of "Clean Energy Transition for Sustainability and GHG Emission Reduction." This effort is envisaged to create role models and awareness about the best practices in the sector.

For further information please click [here](#).

WindEnergy Hamburg

1-4 December 2020 | Hamburg, Germany

WindEnergy Hamburg is tailored toward addressing the major issues facing the international wind energy sector. It brings together a high-caliber, professional audience and 1,400 exhibitors demonstrating their innovations and solutions from



across the entire value chain of the industry. For the first time, WindEnergy Hamburg presents a revised conference concept with a more focused high-level programme and a new part open for all visitors under the theme #climatefirst: there will be three stages set-up for keynotes and panel discussions featuring international experts in the middle of the exhibition halls.

For further information, please click [here](#).

Renewable Energy India Expo

10 - 12 December 2020 | Greater Noida, India

The 14th edition of REI Expo will take place at India Expo Center in Greater Noida from 10 - 12 December 2020. Both the exhibition and the conference provide an excellent opportunity to exchange ideas and technologies, gain insights into current global trends and get connected at networking events. Last year's event attracted more than 35,000 visitors, 700 exhibitors and almost 250 conference speakers. In case you are interested in participating in the German pavilion at REI Expo 2020 kindly get in touch with Ms. Shivani Chaturvedi (shivani@indo-german.com) from Indo-German Chamber of Commerce.



For further information please click [here](#).

The smarter E India

15 - 17 December 2020 | Mumbai, India

With three parallel energy exhibitions, The smarter E India is India's innovation hub for the new energy world. It presents cross-sector energy solutions and technologies and reflects the interaction of the solar, energy storage and electric mobility industry. The smarter E India addresses all the key areas along the value chain and brings together local experts and international stakeholders in the energy future. The exhibition trio with the renowned Intersolar India, ees India and Power2Drive India will take place in Mumbai from 15 - 17 December 2020. German companies interested in participating in the German Pavilion are requested to directly contact Mr. Marius Juschka (m.juschka@balland-messe.de).



For further information please click [here](#).

All upcoming events – Save the date!**Global Energy & Utilities Digital Week**

10 - 13 August 2020 | Webinar
<https://energy-utilities.com/global-energy-digital-week-page000358.html>

2nd Edition of Renewable Energy India E-Expo

2 - 3 September 2020 | Virtual Conference
<https://renewableenergyindiaexpo.com/about-expo>

WB India Summit

11 September 2020 | Virtual Conference
<https://hopin.to/events/india-summit>

3rd Global RE-Invest

14 - 17 October 2020 | New Delhi, India
<https://re-invest.in/>

3rd ISA General Assembly

15 October 2020 | New Delhi, India

India Energy Storage Week (IESW)

2 - 6 November 2020 | Mumbai, India
<https://www.indiaesa.info/events/india-energy-storage-and-ev-technology-r-d-forum>

Green Urja Awards 2020

November 2020 (tbc)
<https://www.indianchamber.org/>

WindEnergy Hamburg

1 - 4 December 2020 | Hamburg, Germany
<https://www.windenergyhamburg.com/en/>

14th Renewable Energy India Expo 2020

10 - 12 December 2020 | New Delhi, India
<https://www.renewableenergyindiaexpo.com/>

The smarterE India in Mumbai

15 - 17 December 2020 | Mumbai, India
<https://www.thesmartere.in/en/the-smarter-e-india>

The 16th edition of Indian Ceramics Asia

3 - 5 March 2021 | Gujarat, India
<https://www.indian-ceramics.com/>

8

DISCLAIMER

The views expressed in this newsletter are solely those of the Indo-German Energy Forum (IGEF) Support Office team. The IGEF Support Office cannot assume any responsibility for the contents of other websites linked in this newsletter.

The Support Office of the Indo-German Energy Forum provides liaison services for all stakeholders. It serves as a first point of contact both to the Indian and German governments as well as companies seeking to get involved in the process. The Support Office answers queries regarding proposals for the IGEF dialogue or IGEF projects and any other subject relevant to the private sector.

9

CONTACT INFORMATION

New Delhi >>

Indo-German Energy Forum Support Office
c/o Deutsche Gesellschaft für Internationale
Zusammenarbeit (GIZ) GmbH
1st Floor, B-5/2, Safdarjung Enclave
New Delhi – 110 029
India


E: communications@energyforum.in
T: +91 11 4949 5353
W: www.energyforum.in

Berlin >>

Indo-German Energy Forum Support Office
c/o Deutsche Gesellschaft für Internationale
Zusammenarbeit (GIZ) GmbH
Köthener Strasse 2
10963 Berlin
Germany

E: info@energyforum.in
T: +49 (0)30 338424-462
W: www.energyforum.in

Follow us on  www.twitter.com/igefso

Like us on  <https://www.facebook.com/IndoGermanEnergyPartnership/>

Thank you for subscribing to our newsletter. If you wish to unsubscribe, please view [manage your subscription](#)

To access all hyperlinks, please visit the online version of the IGEF Newsletter available on: <http://energyforum.in/newsletter.html>