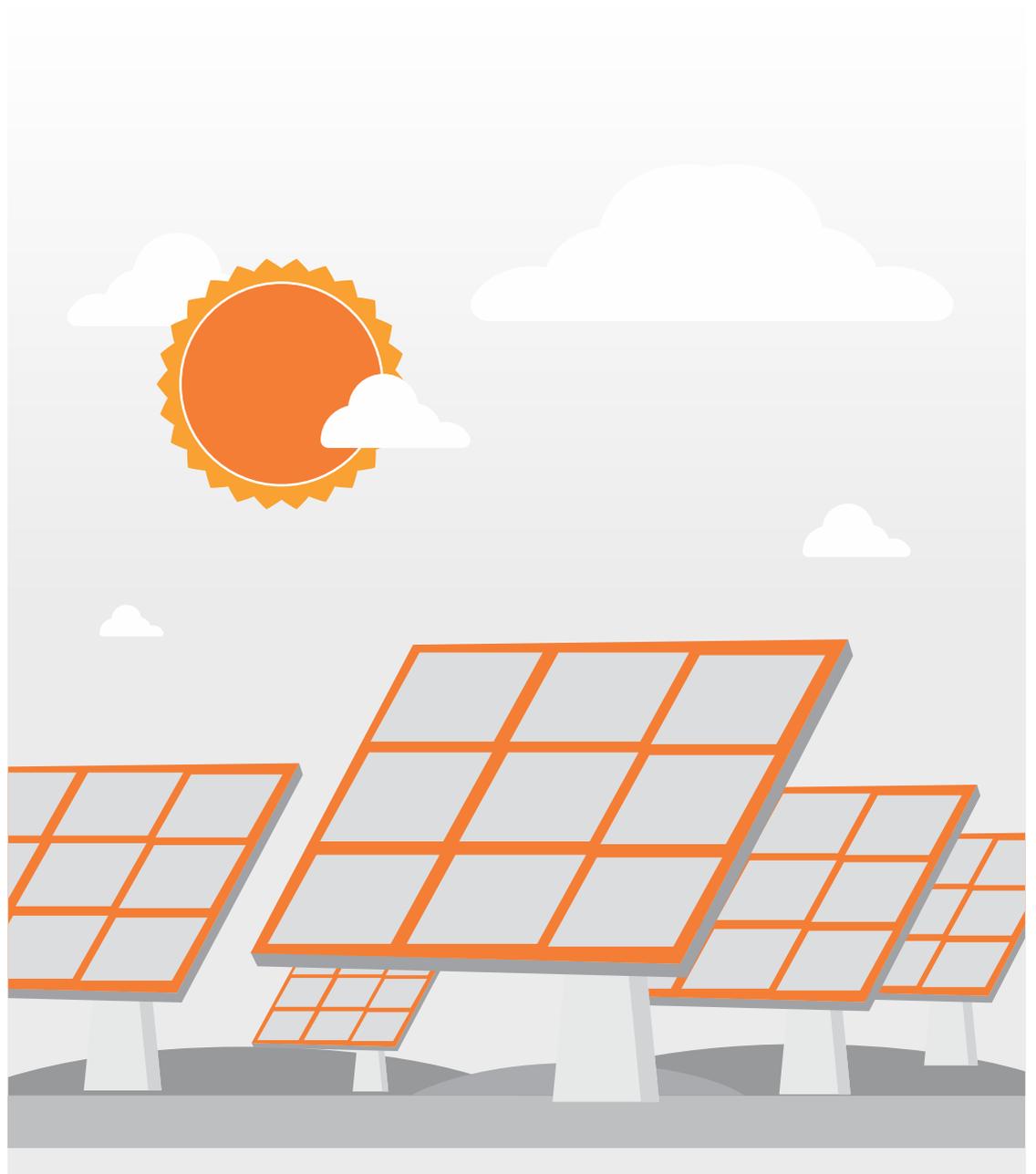


INDO-GERMAN ENERGY FORUM NEWSLETTER

VOLUME 05, ISSUE 04

DECEMBER 2018



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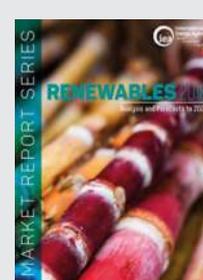
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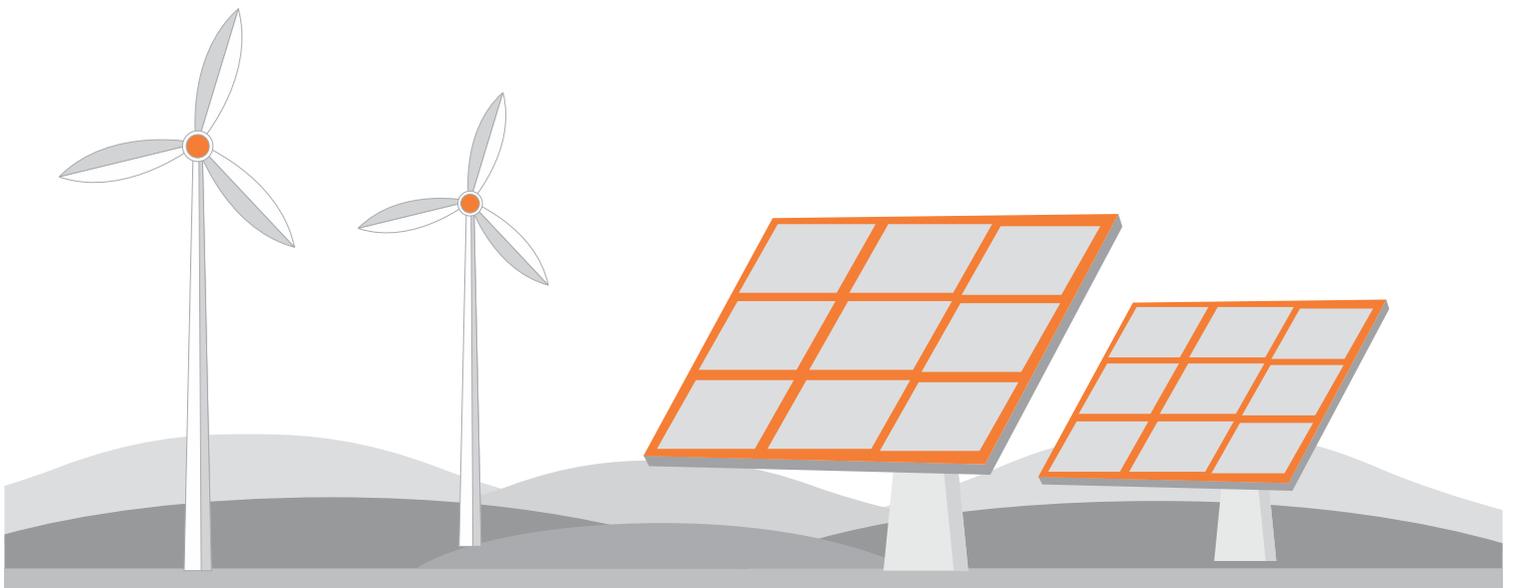


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Retired German energy
experts offering
support to Indian
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1

Introduction

Dr. C S Mohapatra

Additional Secretary DEA, Ministry of Finance, Government of India



Dr. C. S. Mohapatra

Dr. C S Mohapatra is a senior IES officer of 1986 batch and is currently posted as Additional Secretary, in the Department of Economic Affairs in the Ministry of Finance, Government of India. He presently heads the Financial Stability & Cyber Security and Bilateral Cooperation Divisions. He assists the Financial Stability and Development Council (FSDC), the apex Council for the Indian financial sector chaired by Union Finance Minister that involves in-depth understanding of the financial sector issues in general and financial stability, systemic risk & macro prudential policy related issues in particular, both national & international. He handles Bilateral Development Policy Assistance given to or received from other countries. This includes dealing with extension of Lines of Credit to developing countries.

Prior to this, as Adviser (Financial Stability) and Secretary of Financial Stability & Development Council (FSDC) in the Department of Economic Affairs in the Ministry of Finance, Government of India, for over six years, he handled all policy issues and matters of FSDC and Financial Stability Board (FSB). He has held several other senior positions in Central Government Ministries/Departments with wide experience spanning over 30 years. As the Director in Planning Commission from June 2004 to Aug 2007 and coordinated planning of Central Ministries, piloted restructuring/rationalization of Centrally Sponsored Schemes, followed up on Zero Based Budgeting of plan schemes of Govt. of India with Ministries/Departments.

As a financial sector expert and economist, Dr. Mohapatra has contributed in various fora as member in the Working Group on Foreign Investment in India (UK Sinha Committee) and the Secondary Markets Advisory Committee of SEBI. He is a member of various Working Groups/ Task Force covering financial sector areas, such as Macro Financial Monitoring Group, Early Warning Group, Technical Group on Financial Inclusion and Literacy, Working Group on Financial Resolution Regime & Task Force on Financial Data Management Centre. Dr. Mohapatra holds a doctoral degree in Economics from Jawaharlal Nehru University (JNU) and a MSc Degree in Economics from the London School of Economics and Political Science, London, U.K. In addition, he also holds a Masters degree in Analytical & Applied Economics from Utkal University and a M.Phil degree from Panjab University.

The Indo-German Energy Forum welcomes Dr. C S Mohapatra as the Co-Chair of IGEF Sub Group 4 on Green Energy Corridors.



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Events and Activities

Indo-German Energy Forum Roundtable on "Achieving the goal of flexible thermal power plants in India"

4 October, New Delhi



Ceremonial handover of the studies on flexible power plant operation

On 4 October 2018 representatives of ministries, governmental institutions, associations, and industry met in New Delhi to discuss the economically viable flexible operation of coal-fired power plants. A delegation of the German Federal Ministry for Economic Affairs and Energy (BMWi) took the opportunity to inform themselves about the situation in India.

Flexible coal-fired power plants are an important focus of the IGEF, which is why a dedicated task force, headed by Director Operations at NTPC (National Thermal Power Corporation), manages the activities. These activities cover all facets necessary for the flexible coal-fired power plant operation. Such flexibility is an important prerequisite for the development of renewable energy capacity in India, which is expected to increase from the current 72 GW to 175 GW in 2022.

Technical feasibility, capacity building and framework

The activities of the Flexibility Task Force have

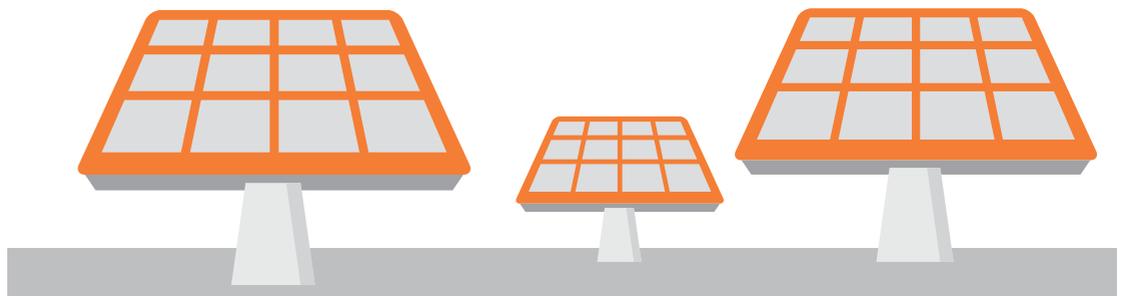
three objectives: demonstrating the technical feasibility, capacity building and providing recommendations for optimized framework conditions. Furthermore, three reports had been written and were handed over during the event. One of them has been developed by Kraftwerksschulee.V., thus presenting a concept for a training program for Indian power plant personnel. Another study by Ernst & Young India provides an overview of the current market conditions for flexible power plant operation. In addition, the VGB together with the EEC (Excellence Enhancement Center) had developed a Flexibility Toolbox – a compilation of technical measures that has been available online since April 2018. Energy Development Agency (IREDA), Mr. Vinay Rustagi, Managing Director, Bridge to India, and Mr. J. N. Swain, Managing Director, Solar Energy Corporation of India (SECI) were leading the fruitful discussions about the upcoming solar market in India.

Highlight of the event was the speech by MNRE Secretary, Shri. Anand Kumar. Underlining India's



strong will to not only fulfill but to exceed India's energy targets, aiming for 500 GW of installed renewable capacity by 2030, of which 320 GW will be solar energy. The Indian government is planning to become the leading country for renewable energy in the future. To achieve its The roundtable discussion focused on the economic viability of flexible power plant operation. The panelists exchanged views on the different market models in India and Germany. It was agreed that proposals for a market system providing incentives for flexibility should be an important subject of future work within the IGEF.

Further concrete steps are planned to implement the flexibilization measures that have been developed by an expert team from EEC and VGB for the NTPC-operated Dadri power plant. The action plan is currently under consideration by the Flexibility Task Force. NTPC, GIZ, EEC and VGB, the Central Electricity Authority (CEA), the network operator POSOCO (Power System Operation Corporation Ltd.) and BHEL (Bharat Heavy Electricals Ltd.) are members of this task force. It has already given the green light for the start of the training program. Therefore, a one-week intensive training course for Indian power plant personnel in Germany is planned this year.





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Business delegation on Solar PV and CSP technologies for industrial applications

8 to 12 October, Bengaluru



Ms. Hellwig-Boette, Consul General of the Federal Republic of Germany in Bengaluru welcomes the participants of the conference

The Indo-German Chamber of Commerce (IGCC) organised a business delegation visit to Bengaluru, from 8 - 12 October 2018. The visit focused on Solar PV and CSP technologies for industrial applications and was supported by the German Federal Ministry for Economic Affairs & Energy (BMWi) under the Energy Solutions –made in Germany Initiative, as well as by Baden-Württemberg International GmbH in Stuttgart, which was the acquisition and promotion partner in Germany.

A Presentation Event was organised at The Taj West End in Bengaluru on 9 October 2018. The participating German companies used this as a platform to showcase their technologies, ranging from Solar PV project development, EPC services (IBC Solar Energy GmbH and CRB Antriebstechnik GmbH), Solar carports (Nrg4.you GmbH) and Turnkey solar thermal plants for industrial process heat (and steam) generation (Protarget AG & Solarlite CSP Technology GmbH).

Several expert speakers shared in-depth insights

about the market development and scope of applications, as well as business potential for Solar PV and CSP technologies. The topic of Concentrated Solar Thermal Technologies (CST) for industrial processes heat generation was especially addressed in more detail to highlight the future potential for the Indian market. Dr. Jürgen Dersch from the German Aerospace Center (DLR) spoke about various technologies and applications worldwide, while an Indian perspective was shared by Dr. Anil Misra of United Nations Industrial Development Organization (UNIDO), through a comprehensive overview of the current status of CST projects and untapped potential in India. He also informed about current schemes by the Ministry of New and Renewable Energy (MNRE) to support CST and highlighted how UNIDO can support potential industrial customers, in addition to the existing schemes.

Mr. Thomas Rudolph, German Solar Association (BSW) and Dr. Ashvini Kumar, The Energy and

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Events & Activities



- Sophia Nebel, IGCC;
- Thomas Rudolph, German Solar Industry Association (BSW)
- Christina Ruffert, Baden-Württemberg International
- Wolfgang Schmittner, Nrg4.you
- Liuzhao Chai, CRB Antriebstechnik
- Dipti Kantikar, IGCC
- Jürgen Dersch, German Aerospace Center (DLR)
- Tobias Winter, Indo German Energy Forum
- Harshad Phadnis, IGCC
- Martin Scheuerer, Protarget AG
- Dr. Anil Misra, UNIDO
- Dr. Ashwini Kumar, The Energy and Resources Institute (TERI)



Resources Institute (TERI), addressed the Solar PV market, while Mr. Tobias Winter of the Indo-German Energy Forum (IGEF), highlighted the hidden energy demand and thus the opportunities, for both the technologies in India. On the following days, delegates interacted

and networked with potential business partners.

For further details please click [here](#)

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Indo-German Energy Forum (IGEF) showcases PV Port & Store at the 2nd Global RE-Invest

3 to 5 October, Greater Noida



Demonstration of PV Port & Store by Mr. Sandeep Goel, Technical Expert, GIZ India to visitors of German Pavilion at RE-Invest.

The 2nd Global RE-Invest 2018 hosted by the Ministry of New and Renewable Energy (MNRE), Government of India, showcased India's renewable energy potential and the Government's efforts to scale up its capacity to meet the national energy requirement in a socially, economically and ecologically sustainable

manner. The Indo-German Energy Forum (IGEF) in collaboration with the Indo-German Chamber of Commerce and Industry (IGCC), the German Development Cooperation (GIZ India) and Fraunhofer Institute organized the German Pavilion at the Expo. The highlight of the German Pavilion was the demonstration of PV Port & Store – an affordable 2kWp plug-n-play rooftop PV system for residential, micro/off-grid applications. The German Pavilion was inaugurated on 3 October, followed by an Indo-German Networking Lunch Reception attended by high-profile dignitaries of the Indian and German Government and representatives of leading Indian and German Companies & Associations. Mr. Wolfdieter Böhler, Head International Cooperation, German Federal Ministry for Economic Affairs and Energy, Dr. Georg Maue, Head of Energy Efficiency, German Federal Ministry for Economic Affairs and Energy and Dr. Caroline Silva Garbade, Head of Economic Affairs at German Embassy in India represented Germany and officially inaugurated the Pavilion.



Ms. Brune Poirson, French Minister of State for Ecological and Inclusive Transition, Mr. R.K. Singh Minister of State (IC) Power and New & Renewable Energy, Mr. G.K. Gupta, Joint Secretary, MNRE, Mr. Anil Kumar Bellary, Co-Director, IGEF and Mr. Wolfdieter Böhler, Head International Cooperation, BMWi



Mr. Wolfdieter Böhler, Head International Cooperation, German Federal Ministry for Economic Affairs and Energy (BMWi) inaugurating the German Pavilion at RE-Invest

Mr. R.K. Singh, Minister of State (IC) Power and New & Renewable Energy, Government of India visited the PV Port & Store, plug-n-play rooftop PV system and briefly met the delegation from German Federal Ministry for Economic Affairs and Energy, BMWi. On 5 October, Dr. Martin Ney, German Ambassador to India visited the German Pavilion followed by Mr. Anand Kumar, Secretary, MNRE who interacted with the representatives of the organizations forming part of the booth. The booth was visited by nearly 10000 visitors with fruitful interactions.

IGEF also organized the "German Country Session" on the topic "Energy transition in Germany and India" on October at the RE-Invest conference. The interactive session gave new

insights on upcoming tenders in wind energy, PV and Biomass sectors and concluded successfully. On 3 October, IGEF also organized the first meeting of the German Local Business Advisory Council which included discussions between representatives of the German private sector with key officials of the German ministry on their focus areas and possible challenges in the field of renewable energy. In addition to exchange of information and sharing knowledge on best practices, the objective of this closed-door meeting was to highlight the views of German companies in order to prepare an effective action plan and non-binding recommendations for the Energy Forum's high-level steering committee.



Dr. Georg Maue, Head of Energy Efficiency, BMWi, Mr. Wolfdieter Böhler, Head International Cooperation, BMWi, Dr. Caroline Silva Garbade, Head of Economic Affairs at German Embassy in India and Mr. Tobias Winter, Director, IGEF chair the German Local Business Advisory Council Meeting



IGEF organizes the German Country Session at 2nd Global RE-Invest 2018

5 October, Greater Noida



Dr. Martin Ney, Ambassador of Germany to India addresses the audience at the German Country Session at RE-Invest

IGEF organized the Country Session: Germany titled “The Energy Transition of Germany and India” during the 2nd Global RE-Invest Expo and Conference at India Expo Mart, Greater Noida on 5 October 2018. Organized by the Ministry of New and Renewable Energy, Government of India, the show was attended by around 18,000 visitors and speakers from 75 countries who witnessed different events on the topics of solar energy, wind energy, energy storage, hydro and biomass energy.

The session was inaugurated by Dr. Martin Ney, Ambassador of Germany to India. In his address, he underlined Germany's close cooperation with India in energy policy and remarked “Germany wants India's success in energy policy. Therefore, both sides are working hard to reach India's goal of achieving 175 GW of renewable energy by 2022”. (source: [German Embassy website](#))



LtoR: Dr. Georg Maue, Head of Energy Efficiency, BMWi
Mr. Wolf Dieter Böhler, Head International Cooperation, BMWi
Mr. A.N. Sharan, Joint Secretary, MNRE
Mr. Abhay Bakre, Director General, BEE and
Dr. Eicke Weber, Vice President, International Solar Energy Society, Germany

Mr. Wolf Dieter Böhler, Head International Cooperation, German Federal Ministry for Economic Affairs and Energy and Dr. Georg Maue, Head of Energy Efficiency, German Federal Ministry for Economic Affairs and Energy represented Germany and spoke about the German energy transition as well as the role of energy efficiency in German energy transition.



Mr. Anand Kumar, Secretary, MNRE addressing the audience at the German Country Session at RE-Invest

Representing the Indian side, Mr. Abhay Bakre, Director General, Indian Bureau of Energy Efficiency (BEE) elaborated on the role of energy efficiency in the scenario of Indian energy transition. Mr. Anand Kumar, Secretary, Ministry of New and Renewable Energy, Government of India gave new insights into current tenders for wind, PV and biomass during the German country session. He announced the extension of the grid expansion program for renewable energy (Green Energy Corridors) with a 2nd and 3rd phase including grid expansion with submarine cables for offshore wind farms which met the German interest. Mr. Kumar also highlighted the target of 30 GW for offshore wind energy to be achieved by 2030. The session was attended by energy experts from Germany and India huge numbers.

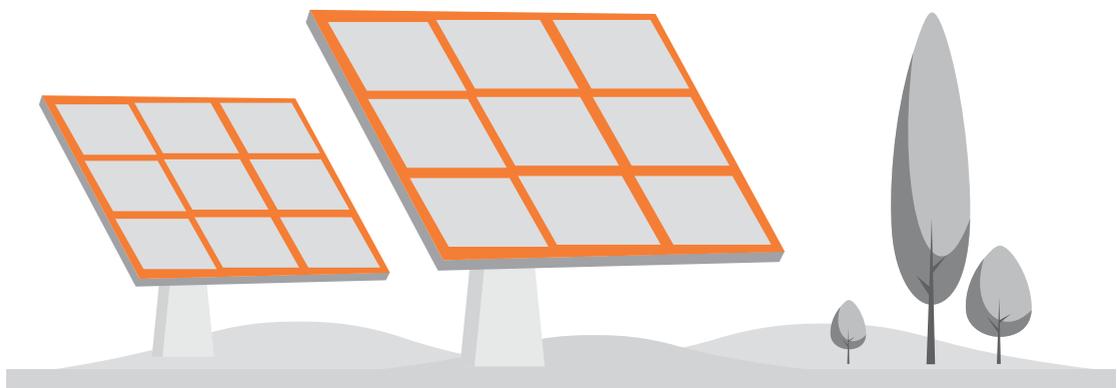
The programme also included a panel discussion on “Opportunities and Challenges on India's Path towards 275 GW by 2027” moderated by Dr.



LtoR: Mr. Mohandas Mekanapurath, Business Head, Bosch Energy and Building Solutions, India, Dr. Christoph Kessler, Director, KfW Development Bank India, Dr. Eicke Weber, Vice President, International Solar Energy Society, Germany, Dr. Winfried Damm, Head Indo-German Energy Programme (IGEN), GIZ India, Mr. Jose Maria Llopis, CEO, IBC Solar Energy, Germany and Mr. Sanmati Naik, Manager – Energy, Fraunhofer India Office

Winfried Damm, Head Indo-German Energy Programme (IGEN), GIZ India. The panellists included Dr. Eicke Weber, Vice President, International Solar Energy Society, Germany, Dr. Christoph Kessler, Director, KfW Development

Bank India, Mr. Jose Maria Llopis, CEO, IBC Solar Energy, Germany, Mr. Mohandas Mekanapurath, Business Head, Bosch Energy and Building Solutions, India and Mr. Sanmati Naik, Manager – Energy, Fraunhofer India Office. The discussion was followed by a Q&A session with the audience.





Indian Offshore Wind fact-finding mission to Hamburg

23 to 29 September, Hamburg



LtoR: Dr. Martin Schoepe, Head of Division International Energy Cooperation, Federal Ministry of Economic Affairs and Energy (BMWi), Mr. Raj Gopal, Principal Secretary Energy, Government of Gujarat and Mr. Thorsten Herdan, Director General Energy Policy, German Federal Ministry for Economic Affairs and Energy (BMWi) addressing the Offshore Wind fact-finding mission.

The Indo-German Energy Forum (IGEF) in collaboration with the Indo-German Chamber of Commerce (IGCC) and the Hamburg Representation Mumbai organized an Offshore Wind fact-finding mission during Hamburg Wind 2018. Mr. Raj Gopal, Principal Secretary Energy, Government of Gujarat, led the mission with active participation at several seminars on logistics and finance. He represented India in technical sessions at WindEurope 2018 Conference, field visits to the offshore wind farm Nordergünde on the coast of Bremerhaven as well as to the Cuxhaven harbour infrastructure of Cuxport. The interest received from German companies for Indian offshore plans came not as a surprise, since many are involved in recent project proposals made to the Government of India, who is planning to install 30 GW of Offshore Wind until 2030 and 5 GW by 2022. Key industry players from Germany briefed the Indian delegation about aspects of logistics and financing of Offshore Wind on the 24 September 2018 at the German Chamber of Commerce in Hamburg. The seminar was organized with

support from the German Stiftung Offshore Windenergie and its CEO Mr. Andreas Wagner. Amongst others, Ms. Sumati Sud, Indo-German Chamber of Commerce and Ms. Seema Singh from the Consulate General of India in Hamburg participated in the event with lively discussions on best practices for India. Required vessels for construction and operation of an Offshore Wind farm, the evolution of Offshore accommodation and necessary harbour infrastructure to reach the need of 1 GW Offshore Wind projects in Gujarat were discussed. The day ended with an evening reception at the city's town hall hosted by Dr. Peter Tschentscher, First Mayor of the Free and Hanseatic City of Hamburg with well-known market players sharing up to date sector insights. This visit was facilitated by Ms. Lea Miram, Hamburg Representative in India.

On the second day Mr. Miguel Arias Cañete, European Commissioner for Energy, European Commission and Fatih Birol, Executive Director, International Energy Agency welcomed the delegates at the trade fair followed by a guided tour with visits to Innogy SE, Senvion GmbH, E.ON



Wind Service GmbH, wpd AG, PNE pure new energy amongst others. The delegation also participated in a briefing on the Indian Wind market informing interested participants about the ambitious target of 100 GW wind capacity by 2030. This briefing took place at the booth of the German Federal Ministry for Energy "Energy Solutions made in Germany" and was moderated by Mr. Tobias Winter, Director of the Indo-German

Energy Forum Support Office.

One highlight was an exclusive B2G Roundtable organized by IGEF and IGCC at the WindEurope 2018 Conference. Dr. Martin Schoepe, Head of Division International Energy Cooperation, Federal Ministry of Economic Affairs and Energy (BMWi), Government of the Federal Republic of Germany and Shri Raj Gopal, Government of Gujarat chaired this B2G roundtable on Offshore market development in Gujarat. Participants from financial institutions and industry interested in the upcoming 1 GW Offshore Wind tender in Gujarat were given the opportunity to directly address the Government officials and raise questions and concerns. Most participants were keen to know if the tender will be floated still this year, requested more precise data on conditions at the site and were concerned that Government of India is not sufficiently considering the necessary learning curve and therefore expecting too low prices per kWh.

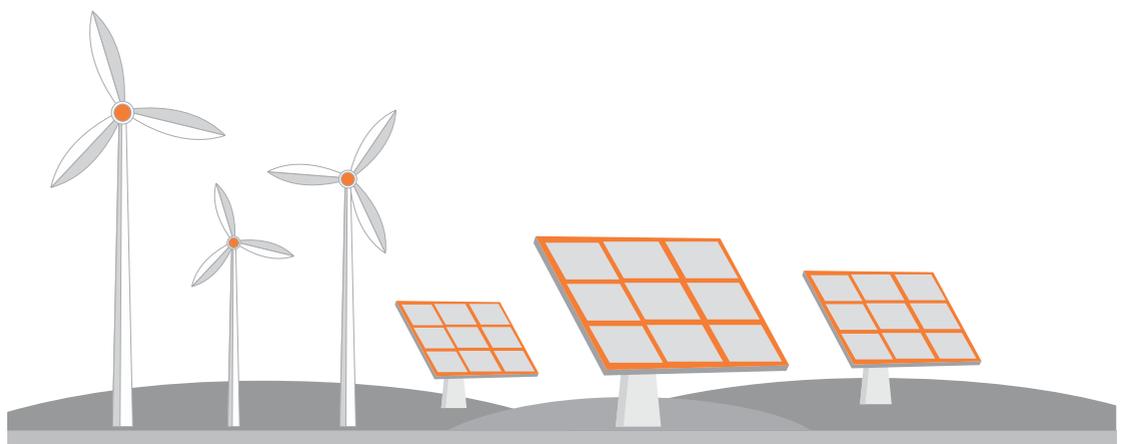


With the present planning, where the bidder for the Offshore Wind project also has to include the costs for the non-existing grid infrastructure, including offshore substations, the price will be higher than for solar PV and wind on land. This might make it politically more difficult to justify going for Offshore even though the numerous advantages of Offshore Wind are clear. One solution discussed for bringing the costs further down, was to introduce a Build-Transfer-and-Operate (BTO) or pure Build-Transfer (BT) model into the upcoming tender, similar to recent tenders in the UK. The bidder would build the grid infrastructure including substations but would hand it over to the Gujarat Energy Transmission Corporation after completion. Gujarat Energy Transmission Corporation has access to Green Energy Corridor funds under the Indian Ministry for New and Renewable Energy and would therefore be able to get the grid infrastructure at a much lower price. Cost for financing would also be reduced, because of international public financing available at much lower interest rates to support the energy transition of India. At the end the Discom Gujarat Vij Company Limited would be able to buy the electricity at a much lower price per kWh. A win-win for the country and for the developer.

Similar discussions were held at the official WindEurope Conference 2018 side event “Offshore Wind Opportunities in India” organized by IGEF and IGCC with support from the European Union and Ministry for Energy, Germany. Mr. Thorsten Herdan, Director General Energy Policy, German Federal Ministry for Economic Affairs and Energy (BMWi), welcomed the participants and special guests from Government of India, amongst them Consul General of India to Hamburg, Shri Madan Lal-Raigar. More than 100 key industry players from Germany and India discussed the present and future offshore market developments in India, drivers for German offshore wind, offshore wind market development outside Europe and the upcoming offshore tender for the coast of Gujarat.

Another highlight was the panel discussion on “Facilitating Offshore Wind in India”, moderated by Mr. Steve Sawyer, Senior Policy Advisor, Global Wind Energy Council (GWEC). The participants had the chance to introduce their companies and their mission and objectives during the pitching session. International experts shared up to date sector insights directly from the Indian Offshore Wind developments.

For more information, please get in touch with: sumati@indo-german.com





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Indo-German Energy Forum (IGEF) participates at Renewable Energy India Expo 2018

18 to 20 September, Greater Noida



Dr. Jasper Wiek, Deputy Chief Mission, Embassy of the Federal Republic of Germany to India inaugurating the RE-Expo

The 12th edition of the Renewable Energy India (REI) Expo took place from 18 – 20 September 2018 at the India Expo Centre, Greater Noida. The Indo-German Energy Forum (IGEF) became the supporting partner together with the Indo-German Chamber of Commerce (IGCC), the Indian Biogas Association (IBA) and the EU-India Clean Energy and Climate Partnership amongst others. The show saw participation of 45 countries, over 750 exhibitors and over 3500 business visitors. In the course of the 'Indo-German Energy Day', IGEF organised an Indo-German Energy Symposium Conference and participated in thematic sessions during the two-day conference. The Indo-German Energy Symposium Conference was inaugurated by Dr. Caroline Silva-Garbade, Head of the Economic Affairs Section, Embassy of the Federal Republic of Germany to India.

The first Symposium Session focussed on Upcoming and Niche Markets for Solar PV in India, chaired by Dr. Winfried Damm, Head Indo-German Energy Programme (IGEN), GIZ India. Amongst others, Shri S.K. Mishra, Director, Solar

Energy Corporation of India (SECI), spoke about Upcoming Markets for Solar PV, and Mr. Maximilian Trommsdorff, Fraunhofer ISE, discussed Global Best Practices in Agro-PV in Emerging Economies. The second Symposium Session discussed New Markets and Upcoming Business Opportunities in the Onshore Wind Sector in India, chaired by Mr. Markus Wypior, Project Coordinator, Green Energy Corridors



Dr. Caroline Silva-Garbade, Head of the Economic Affairs Section, Embassy of the Federal Republic of Germany to India inaugurating the Indo-German Energy Symposium at RE-Expo Conference

(IGEN-GEC), GIZ India. Amongst others, Mr. Rajesh Katyal, Deputy Director General and Group Head, National Institute of Wind Energy (NIWE) spoke on Wind Resource Assessment & Offshore and Mr. Balawant Joshi, Managing Director, Idam Infra about the Repowering of Wind Turbines in India. Within the framework of this thematic block, the IGEF study "Repowering of Wind Turbines in India" was launched, which focuses on the renewal of old and inefficient wind turbines and shows the possibilities and potentials of this topic.

Alongside the Conference, IGEF organized a German Pavilion at the trade fair which was officially inaugurated by Dr. Jasper Wieck, Deputy Chief Mission, Embassy of the Federal Republic of Germany to India, Dr. Caroline Silva-Garbade, Head of the Economic Affairs Section, Embassy of the Federal Republic of Germany to India and Dr. Winfried Damm, Head Indo-German Energy Programme (IGEN), GIZ India, on the first day of REI Expo.

In addition, IGEF arranged an exclusive Business to Government (B2G) Lunch Roundtable

moderated by Mr. Jörg Uehlin, Private Sector Advisor, Indo-German Energy Forum (IGEF-SO) and chaired by Dr. Caroline Silva-Garbade, Head of the Economic Affairs Section, Embassy of the Federal Republic of Germany New Delhi. The panel focused on current market developments and challenges for German renewable energy companies in India. After a brief introduction to the topic, the industry and association participants had the opportunity to talk directly with the government representative and the other company representatives in order to bring their concerns directly into the political dialogue.

The Technology Exhibition 'renewables – Made in Germany' by the German Energy Agency (dena) was another highlight of this year's REI Expo 2018. With 26 stand-alone panels, the exhibition presents facts about renewable energy sources, technologies and systems. This exhibition has been visited by interested visitors at the expo and conference. The Technology Exhibition is an important platform for IGEF to showcase renewable energy technologies and strengthen Indo-German Energy collaboration.

LtoR: Mr. Rajesh Katyal, Deputy Director General and Group Head, National Institute of Wind Energy (NIWE), Mr. Markus Wypior, Project Coordinator, Green Energy Corridors (IGEN-GEC), GIZ India, Mr. Balawant Joshi, Managing Director, Idam Infra about the Repowering of Wind Turbines in India and Mr. Anil Kumar Bellary, Co-Director, IGEF launching the report on Repowering of Wind Turbines in India





Skills on Wheels: Solar Mobile Laboratory by Steinbeis at REI-Expo

18 to 20 September, Greater Noida

Steinbeis participated in the German Pavillion in REI-Expo 2018 in New Delhi and displayed its unique concept "Skills on Wheels" a Mobile Solar Training Van. This van is a first of its kind of initiative in Asia to empower the aspiring rural youth. The basic concept and design were conceptualized by Steinbeis Germany and the fabrication was done at Hyderabad, India.

Due to high infrastructure costs many training institutes are unable to reach the rural areas and hence technical skills cannot be imparted there. Through programs like "Skills on Wheels" Steinbeis is able to reach the youth in villages/town at their door steps. Steinbeis encourages the rural youth to move towards the technical world by providing employment or entrepreneurship opportunities.

Through its customized training programs, Steinbeis has connected theoretical knowledge to the practical know-how through experiential learning. Steinbeis works hand in hand in motivating young entrepreneurship towards solar industry with many companies in Private Sector, to understand their requirements of the manpower and expertise.

Steinbeis training programs are internationally recognized with organizations like European Energy Center (EEC) and its laboratory is fully equipped with standards and guidelines of the Skill Council for Green Jobs.

During this exhibition Industry experts/Students/Bankers/Educational Institutes and other visitors have shown keen interest in extending their business relations with Steinbeis. It was highly recommended that by organizing inhouse training programs (on the job training) from time to time for the working professionals by an experienced solar faculty from Steinbeis would provide an added value for the upgradation of this budding industry.

There were requirement from other institutes for setting solar training industries in partnership with Steinbeis, in other parts of the country. One

of the interesting requirements was for retrofitting vans with solar systems for other applications.

Mr. Vineet Kumar Goyal, Director, Steinbeis India made a presentation on "Opportunity to establish Indo-German Centre of Excellence in Renewable Energy Technologies and Training". As a part of this initiative, in cooperation with nReEn-Steinbeis Institute for sustainable Resource Usage and Energy Management, Steinbeis Innovation GMBH Germany, shall set up centers of Excellence in Indian Institutions.

Steinbeis India shall be responsible for the operational management of the Centers, while NReEn shall manage research activities between German & Indian Partners. The objective of these centers shall be to build-up a network of Companies, Industry Associates, Research Institutes and Universities for applied research. These centers shall support creation of research activities between India and Germany, while also implementing new learning methodologies for distance learning for managing new technologies. The partner Institution shall provide infrastructure for the research presence in terms of utilizing existing laboratories, providing office-space and providing an expert as Head of the Centre. Steinbeis & Indian Institute shall together work to activate the network to Indian Industry for building up a network together with Indian Companies and Research centres. nReEn shall coordinate the activities between German & Indian partners and provide the Idea Management Software "PINN" for sharing ideas and develop research projects and proposals. The institute shall also implement industry related management programs together with Steinbeis University both in online - distance learning and classroom courses.

For more details please contact:
vineet@steinbeisindia.com





Launch of Report on Cooling Demand and Energy Efficiency Potential in India

4 October, New Delhi



Dr. Satish Kumar, Executive Director, AEEE, Dr. Georg Maue, Head Energy Efficiency Policy, BMWi, Mr. Abhay Bakre, Director General, BEE, Mr. Anil Kumar Jain, Additional Secretary, Ministry of Environment, Forest and Climate Change, Mr. Raj Pal, Economic Advisor and Joint Secretary, Ministry of Power and Dr. Winfried Damm, Head Indo-German Energy Programme (IGEN), GIZ India launching the report on Cooling demand in India

On 4 October 2018, the Alliance for an Energy Efficient Economy (AEEE) and The Energy and Resources Institute (TERI) launched two important studies jointly conducted with the Indo-German Energy Forum (IGEF) and commissioned by the Bureau of Energy Efficiency (BEE). The first study is titled "Demand Analysis for Cooling by Sector in India in 2027" conducted by IGEF and AEEE and the second study is titled "Energy Efficiency Potential in India" conducted by IGEF and TERI.

Dr. Satish Kumar, Executive Director, AEEE, illustrated the key findings of the cooling demand study at the launch event. The report highlights that the country's cooling energy demand will rise to 2.2 times the existing level by 2027 and interventions can help cut it down by 17 per cent in the next decade. It explores India's cooling demand in buildings, mobile air-conditioning, refrigeration, cold-chain and process cooling in industries, and identifies key technological, operational and market interventions for the largest energy and carbon savings in cooling. Thereafter, Mr. Swapnil Shekhar, Research

Associate, TERI, presented key findings of the study "Energy Efficiency Potential in India". His presentation was followed by special addresses of Mr. Anil Kumar Jain, Additional Secretary, Ministry of Environment, Forest and Climate Change and Mr. Raj Pal, Economic Advisor and Joint Secretary, Ministry of Power, Government of India who underlined the potential of saving energy and greenhouse gas emissions, which is why further efforts in the field of energy efficiency in India were suggested.

Mr. Abhay Bakre, Director General, BEE, and Dr. Georg Maue, Head Energy Efficiency Policy, German Federal Ministry for Economic Affairs and Energy BMWi, also highlighted the importance of energy efficiency especially in the field of cooling, as the demand is expected to drastically increase over the next few years according to the "India Cooling Action Plan" (ICAP).

Both the studies can be downloaded from IGEF website: [Demand Analysis for Cooling by Sector in India in 2027 and Energy Efficiency Potential of India](#)

IGEF Subgroup III meeting on “Energy Efficiency”

5 October, New Delhi

The Indo-German Energy Forum (IGEF)'s Subgroup III (SG3) - Energy Efficiency - meeting was held on the 4 October, 2018 in New Delhi after the launching event on Cooling Demand in India and India's Energy Efficiency Potential. The meeting was co-chaired by Dr. Georg Maue, German Federal Ministry of Economic Affairs and Energy (BMWi), Government of Germany and Mr. Abhay Bakre, Director General, Bureau of Energy Efficiency (BEE), Government of India.

Both Mr. Bakre and Dr. Maue underlined the importance of both studies, which had been launched during the afternoon. The increasing demand for cooling in India and its energy efficiency potential in general are a big challenge for India. Afterwards, Dr. Maue reported on the most recent developments in Germany in the field of energy in general and energy efficiency in particular. As the “Energiewende” is proceeding, new challenges have to be met, which is why energy efficiency is becoming more and more important in Germany. Similar as with cooling in

India, Germany is looking for smarter types of heating, e.g. “district heating 4.0”. Mr. Bakre pointed out the similarities between the development in Germany and in India. An important question would be, how to reach out to all consumers and stakeholders in order to raise awareness for energy efficiency.

Mr. Arijit Sengupta, BEE, and Mr. Hemant Bhatnagar, German Development Bank (KfW), gave presentations on the current measures and programmes undertaken by their institutions in the field of energy efficiency. Afterwards new upcoming projects and developments in the fields of E-Mobility, Demand Side Management, the visualization of data or possible incentives for energy efficiency were discussed.

In the end both Mr. Bakre and Dr. Maue mentioned their full support for carrying on the funding for the IGEF-SO, as it would not just simplify, but moreover enhance the bilateral energy cooperation.

Dr. Georg Maue, German Federal Ministry of Economic Affairs and Energy (BMWi), Government of Germany and Mr. Abhay Bakre, Director General, Bureau of Energy Efficiency (BEE), Government of India chair IGEF's Subgroup III meeting on Energy Efficiency



Bavarian Ministry of Economic Affairs,
Energy and Technology



Expert information Seminar “Consumption-based power generation from solar energy in India”

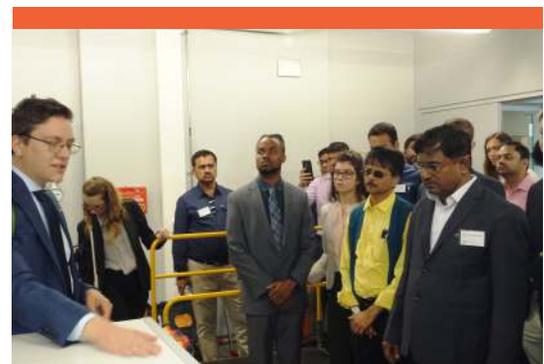
08 to 14 July, Bavaria



The GIZ State Office Bavaria together with the Ministry of Economic Cooperation and Development (BMZ) and Bavarian Ministry of Economic Affairs and Media, Energy and Technology offered a theoretical and practical approach through a one-week technical seminar (FIS) in Bavaria, in which 15 Indian professionals from Private sector, Governmental authorities, and lecturers from universities were selected to enhance their knowledge about legal, political and economic framework conditions in the field of consumption based power generation from Solar energy, the training was designed to support business contacts, know-how and technology transfer and development of implementation concepts. The program began with the introduction of off grid systems and PV Electronics where GIZ Bavaria explained the objectives of Seminar and also discussed the expectations of participants, where companies like ISSEP outshined the topic “Renewable Energy policies in Germany and Bavaria. Focus on Solar Energy” together with the visits to PV and Solar thermal plants of GIZ, Phaesun GmbH (Off grid specialist, PV Home systems, consumer products, project development in rural electrification, online

shop) and StecaElektronik GmbH (Renowned manufacturer of a broad range of electronic equipment for solar industry).

Further to that, the second day started with the



topic “Grid Management/Energy Storage” where the participants visited egrid applications & consulting GmbH (joint venture of AllgauerUberlandwerke GmbH, a regional power producing company, and Siemens AG, also they are specialists in grid analysis, simulation and intelligent grid management, with a high percentage of renewable energies, storage and

2

Events & Activities



multiple uses), multi-modular battery storage system "SchwarmspeicherAllgau" at Kempten-Ursulasried and VARTA Storage GmbH (Solutions for energy storage at various levels and for a variety of applications) together with the presentation on integration of PV Plants into the distribution grid. Third day started with the topic of Ongrid and Offgrid solar projects, where the experts visited IBC Solar Energy GmbH, ground mounted solar PV Plant, Sunset Energietechni GmbH (producer of high-quality PV Panels, distributor of PV components, solar PV and solar thermal projects) together with the introductory presentations of the companies itself.

and the last two days covered the topic of Applied research on solar systems, solar home systems,

solar PV Systems and closing of the entire seminar in which the experts started with visiting the German Federal Ministry for Economic Development and Cooperation (BMZ), Technical University Ingolstadt and Renerco Plant consult (daughter of BAYWA R:E) and feedback sessions at Munich and after all the visits and seminars, the one week expert information seminar ended successfully with some fruitful discussions and the exchange of knowledge between both the countries about "Consumption based power generation from solar energy and it turned out to be a great platform for exchanging experiences".



3

Developments in Indo-German Energy Cooperation

GIZ India and WWF India conducted stakeholder's consultation workshop on space heating technologies in Sikkim

20 November, Sikkim



Participants at Stakeholders Consultation Meeting at Gangtok, Sikkim

GIZ India in partnership with WWF organised a Stakeholder Consultation Meeting on "Space Heating Solutions for the Himalayan Region" on 20 November 2018 at Gangtok, Sikkim. GIZ has already implemented Solar Space Heating Project in Ladakh with support from associated experts and local stakeholders in Ladakh. Therefore GIZ acted as knowledge partner for this workshop.

Sikkim, in its State Action Plan on Climate Change, recognizes the emissions from space heating using fuel wood and recommends for alternative solutions as mitigation effort. The cleaner solutions for space heating should have multiple positive impacts leading to overall improvement in quality of life.

The meeting was attended by Dr K. Jayakumar, Additional Chief Secretary, Department of Science and Technology, Government of Sikkim who emphasised to make use of innovative technologies and skills to combat the global challenge of climate change. Officials from GIZ, WWF, NISE, Tourism Dept, local NGO, Architects and hoteliers were also present for the meeting.

This stakeholder meeting deliberated on the topic of Space Heating, discussed range of technologies available, their pros and cons and got feedback from local stakeholders to chart roadmap for further action.

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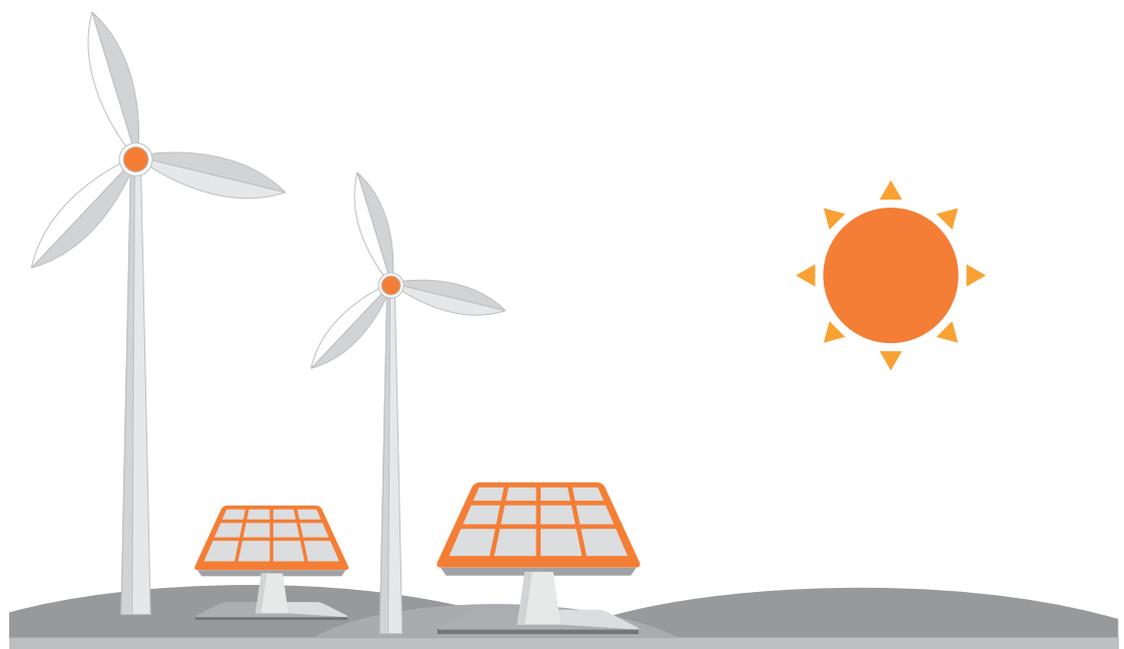
Developments
in Indo-German
Energy
Cooperation



German Biogas Association continues support to strengthen Indian biogas sector

Since 2015 the German Biogas Association (GBA) and Indian Biogas Association (IBA) have been working together in the context of a Chamber and Association Partnership project, which is financed by the German Federal Ministry for Economic Cooperation and Development (BMZ). After three years of implementing a multitude of measures in order to strengthen IBA and the Indian biogas sector, the partners are looking forward to continue their partnership with the financial support from BMZ for another three years,

starting from 1 December 2018. Planned actions include continued work in awareness raising and public relations, organizing events, biogas consulting services to association members and especially policy consulting. The goal of this partnership is to improve the framework for the development of the biogas industry in India and build a membership-based association structure, so IBA will be able to finance itself independently by the end of 2021.





India's Energy Supply to become Greener: KfW and REC join hands to finance Renewables in India

August



Copyright: Brit Horschke

- Credit Line of EUR 200 Million
- Increased Generation of Clean Energy from Renewable Energy Technologies like Wind and Solar
- Additional Power Supply to 27,000 Indian Households
- Improved environmental and social standards for solar project development

In a bid to enhance to generation of clean energy in India KfW, on behalf of the German Federal Ministry of Economic Cooperation and Development (BMZ), signed a EUR 200 Million Loan agreement with the Rural Electrification Corporation (REC Limited). The loan agreement aims to provide access to low-interest loans to Renewable Energy investors for wind and solar projects. It is expected that this loan will lead to the leverage of around EUR 285 Million of investment and the deployment of around 200 MW of Renewable Energy Capacity.

This loan will complement the Government of India's target of deploying 175 GW of Renewable

Energy Capacity by 2022 and ensure much greater adoption of clean energy in India's growing energy supply and mix. "India ranks third in the list of countries with the high CO2 emissions. In light of the ongoing growth in the economy and the population, demand for electricity will also continue to rise. KfW's financing to promote the increased use of renewables will make an important contribution to slowing the rise in greenhouse gas emissions and reducing the deficit in the energy supply", says Professor Joachim Nagel, Member of the KfW Group Executive Board.

A complementary measure will also see REC receiving a grant of EUR 1 Million which REC will supplement by additional funds equalling the same amount from the company's own resources. These funds will be used, among others, to implement an environmental and social management solution, which will significantly raise the sustainability and standards to which Renewable Energy projects are developed in India. The loan agreement was signed in August 2018.



Copyright: Brit Horschke



Greening India's Energy Supply: KfW and SBI join hands to finance Solar Energy Generation in India

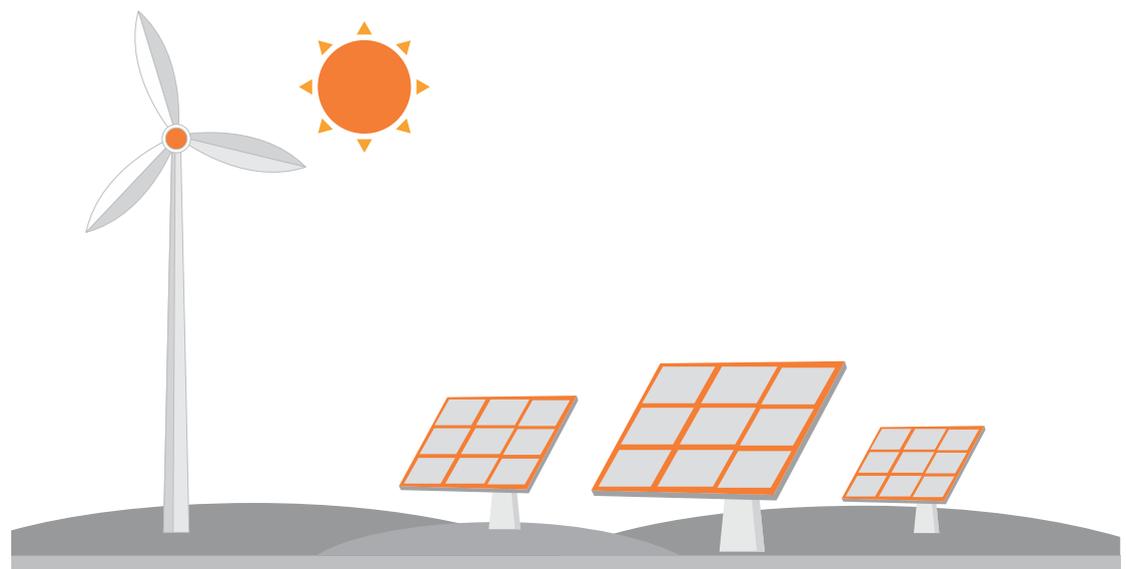
April

- Credit Line of EUR 150 Million
- Increased Generation of Clean Energy from Solar
- Improved environmental and social standards for solar project development

KfW signed a loan agreement for EUR 150 Million with the State Bank of India. This is the first loan under the Indo-German Solar Partnership on behalf of the German Federal Ministry of Economic Cooperation and Development (BMZ). SBI will on-lend these funds to the private investors and developers as low-interest loans for investment in solar energy generation. These loans will be supplemented by equity contributions to the tune of 30 percent by investors as well as contributions from other banks and financial institutions under syndicate financing packages. An overall investment of EUR 215 Million is expected to be leveraged through this loan agreement.

This loan agreement aims to increase the use of solar energy through adequate and improved access to financing for investments in the area of solar energy generation while at the same time complementing the efforts of the Government of India to achieve the target of 100 GW of solar capacity addition by 2022. The loan agreement will facilitate greater access to clean energy to meet the growing energy needs of the Indian economy and its people and go a long way in slowing the rise of greenhouse gas emissions in the Indian power sector.

A complementary measure will also see SBI receiving a grant of EUR 2 Million for implementing an environmental and social management solution, which will significantly raise the sustainability and standards to which solar projects are developed in India. The loan agreement came into effect in April 2018.



Capacity Building Workshops on Solar Rooftop PV for State Nodal Agencies of Gujarat, Himachal Pradesh and Jammu & Kashmir

24 to 25 July, Gujarat | 28 to 29 August, J&K
5 to 6 September, Himachal Pradesh



Officials of GEDA, Gujarat participating in the capacity building workshop on GRTPV at Gandhinagar

Under the Indo-German Bilateral Cooperation, GIZ India is implementing a project on Rooftop PV in India (TROPHI). GIZ India has commissioned Renewables Academy (RENAC) in Berlin and Steinbeis India for implementing the TROPHI Project to carry out direct trainings and seminars for different target groups contributing to skill development of the human resource in the solar rooftop PV sector.

Officials of JAKEDA, Jammu & Kashmir participating in the capacity building workshop on GRTPV at Jammu



GIZ India organized threetrainings (two day each) for the officials of Gujarat, Jammu & Kashmir and Himachal Pradesh on grid connected solar rooftop PV in India. Nearly 100 officials from the State nodal agencies and other institutions participated in the workshop.



Officials of HIMURJA participating in the capacity building workshop on GRTPV at Shimla

The training was delivered by highly experienced experts on renewable energy. The training covered all key aspects with respect to solar rooftop systems to help the officials of the SNAs in complete understanding of these systems. A brief overview of the schedule and locations of the trainings conducted is as below:

Capacity Building Workshops on Solar Rooftop PV and related applications for State Nodal Agencies of Leh and Kargil

7 to 9 August and 13 to 16 August, J&K



Officials of various organisations participating in the capacity building workshop on GRTPV at Leh, Ladakh

GIZ India conducted a special training for the officials of State Nodal Agencies of Leh and Kargil district of Jammu and Kashmir. GIZ conducted three-day training each in Leh and Kargil. The training aimed at providing concepts as well as hands on training on various aspects of Solar rooftop PV.

At Leh, officials of Ladakh Renewable Energy Development Agency (LREDA) as well officials from Ladakh Ecological Development Group (LEDeG), Power Department (PD) and other NGOs took part in the training. Similarly in Kargil officials of Kargil Renewable Energy Development Agency (KREDA) as well as officials from Power

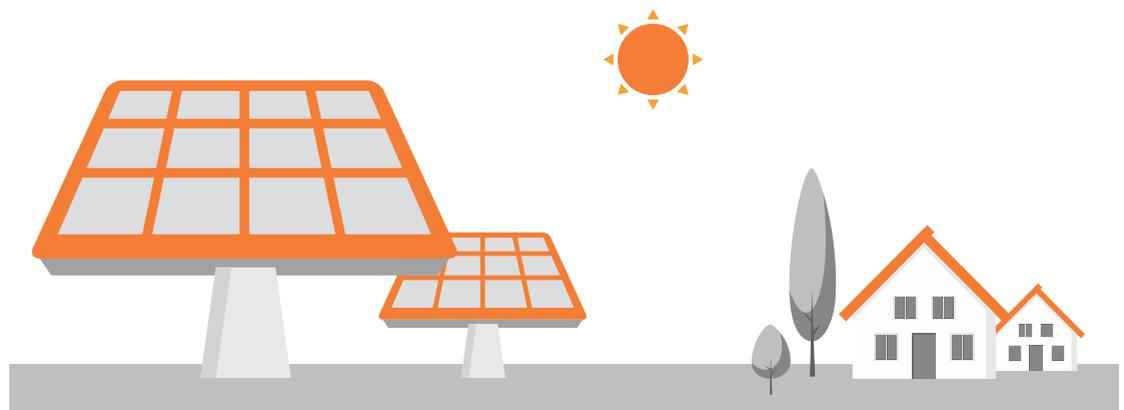
Department (PD), students from ITI and other NGOs took part. Nearly 50 officials from the State nodal agency and relevant agencies of the above participated in the workshop.

The training was delivered by international expert of Solar PV and Solar thermal, Dr. Christoph Mueller. The training covered all key aspects with respect to solar rooftop systems to help the officials of the SNAs in complete understanding of these systems. A brief overview of the schedule and locations of the trainings conducted is as below:

For more details, kindly contact: kanchan.agrawal@giz.de



Officials of various organisations participating in the capacity building workshop on GRTPV at Kargil, Ladakh





India bright spot for SHIP but system stability and widespread awareness needed

27 September, New Delhi



Policy Workshop on Solar Heat for Industrial Process (SHIP) in New Delhi

Viability, justifying performance, lack of awareness, area constraint, mandating use and extensive publicity of success case studies were some of the salient outcomes of the Policy Workshop on Solar Heat for Industrial Process (SHIP) held in New Delhi on 27 September 2018 as a part of the Solar Payback project.

The event saw overwhelming participating officials from Ministry of New and Renewable Energy and associated government agencies like Bureau of Energy Efficiency, Petroleum Conservation Research Association, IREDA Ltd., besides officials from UNIDO's project on solar industrial heating. Manufacturers and developers of SHIP participated in large numbers to show the affirmative approach to pursue SHIP.

Although India is in the forefront of showcasing versatility of applications of SHIP however performance stability is a concern. Those projects that have a success story must be widely publicized to capture the attention of industries. Lack of awareness amongst industries and lack of

knowledge by the Certified Energy Auditors needs to be addressed on priority.

Another consensus reached was to focus on select industrial sectors by mandating a specified heat generation through solar thermal. As an example, dairy offered the best hope where thermal energy accounts for 70% of energy. The potential savings identified is close to 30 kilo tonnes of oil equivalent. MNRE may also take up capacity building workshops and generate enough publicity through print and electronic media. Mr. Jaideep Malaviya, Secretary General, STFI said "We have been demanding an obligation on use of solar process heat, but government agencies wanted system stability before any obligation is put in place." Manufacturers present did accept that system performance is a grey area and assured to work on it to win the confidence of investors.

Many industries need heat for more than 16 hours a day and in some cases round the clock. Hence storage of solar heat energy will also be

3

Developments in Indo-German Energy Cooperation

knowledge by the Certified Energy Auditors needs to be addressed on priority.

Manufacturers shared that it is problematic for interested beneficiary to buy additional land to implement solar heating system and is costly in case of large installations. Furthermore, long transportation distances have to be taken into account.

Dr. Anil Mishra, National Project Manager UNIDO shared that financial barriers need to be tackled. There is lack of availability of working capital as Banks perceive high risks owing to longer payback period and lack of technology performance.

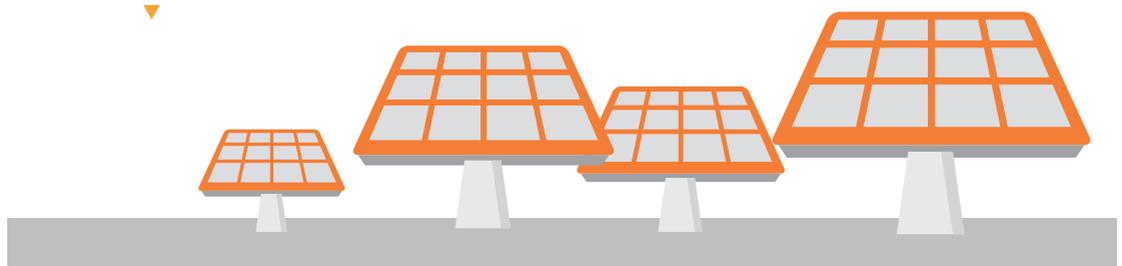
The workshop ended with other policy recommendations to accelerate SHIP as below:

- Organize sector-specific events, in which the advantages of the technology and its potential is clearly communicated
- Actively advertise benefits of SHIP viability to target industries
- ESCO models can be an option – also in terms of decreasing the risk for investors

- Implementing a performance guarantee, which must be longer than the payback time
- Subsidies are offered only for Concentrator system but not for flat plate systems
- The first “push” can be given by subsidies, but ultimately installing and operating a SHIP system must make economic sense
- The main target for the next six months should be identifying 50 projects where SHIP can be installed and showcase its viability
- Exposure of manufacturers to some of the successful installations in other countries through field visits and face to face interaction with the beneficiaries will help increase the schooling for stable technology development

Text based on the article by Mr. Jaideep N. Malaviya, Secretary General, Solar Thermal Federation of India (STFI).

For more information, please contact:
info@stfi.org.in



4

Quote of the month from India and Germany

Quote of the month from India



“Our Prime Minister has given us another challenge of one world, one sun, and one grid. It is feasible and we will also achieve it.”

Mr. R. K. Singh, Union Minister (IC) for Power and New & Renewable Energy.

Source: PIB

Quote of the month from Germany



“Climate-friendly energy technology 'Made in Germany' is in demand across the world – and we want to keep it that way.”

Mr. Peter Altmaier, Federal Minister for Energy on the agreement that was reached on the “Clean Energy for All Europeans” legislative package

Source: BMWi

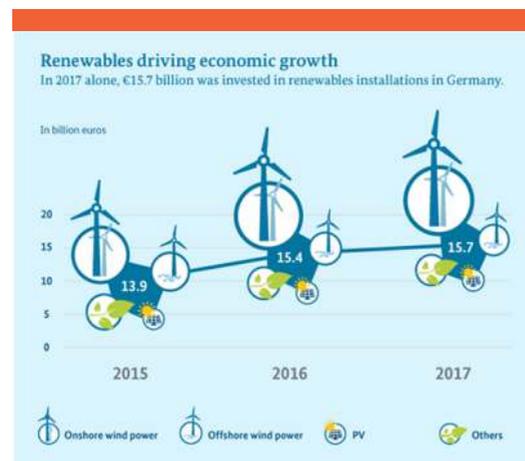
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Energy Transition News

Investment in renewables up nationwide in 2017

Almost €16 billion was invested in new renewables installations in Germany last year. This means Germany continues to invest more in renewables, defying the international trend.

2017 was the second consecutive year which saw Germany's investment in renewables installations



rise, in this case from €15.4 billion to €15.7 billion. This means that Germany continues to defy the global trend towards fewer investments

(for more details, please refer to the September edition of this newsletter here).

Renewables have become a driver of economic growth

Recent figures demonstrate that the energy transition has become a driver of economic growth in Germany. This is particularly so if you factor in not only the investments in new

installations, but also the maintenance and operating work for existing ones, which add another €16.2 billion to the overall figure. And it is especially in this field that a large number of local companies have created a substantial number of jobs.

Wind energy: strong. PV: weak, but stable

Investment in wind energy was particularly strong last year. Tallying €10.7 billion, these investments accounted for almost 68% of all investments in the renewables sector. In fact, wind energy has been able to further increase its dominance ever so slightly compared to the preceding year (almost 67%).

In terms of the overall development since 2010, however, investments fell from €28 billion in 2010 to just under €14 billion in 2015. The main culprit here is PV. The number of new installations being added has fallen considerably, with prices for individual modules also falling drastically.

Considering this, it is all the more impressive to see that overall investment in renewables has been continuously rising again since 2015. Germany, which has a large stake in the value chain for planning, constructing and assembling installations, benefits a great deal from this investment.

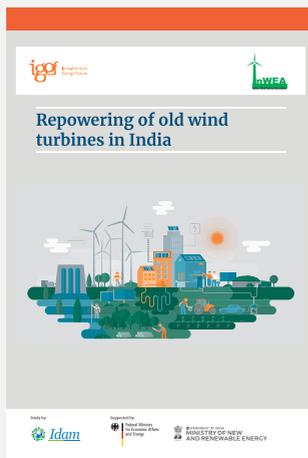
Other renewables (electricity and heat from biomass, hydropower, solar, geothermal and ambient heat) accounted for a combined investment of €3.4 billion in 2017 (just over 21% of overall investments). Investment in solar thermal installations, hydropower and heat from biomass fell year-on-year, whereas investment in geothermal energy (including ambient heat) and electricity from biomass grew.



6

Publications

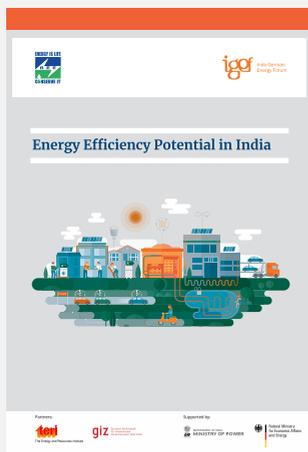
Repowering of old Wind Turbines in India



As wind power generation facilities age through the years of operations, toward the end of their useful lives, project owners are faced with plant end-of-life decisions. This report is intended to inform policymakers, wind power project developers, investors, funding institutions and other stakeholders within the wind industry regarding the technological options, business opportunities and challenges associated with such plant end-of-life decisions, in particular, repowering.

Please click [here](#) to download the report.

Energy Efficiency Potential in India



India's energy sector is poised at a juncture wherein it still needs to increase both the total and per capita levels of energy provisioning in order to improve the level of services, infrastructure and total economic output. At the same time, the country faces the challenge of achieving this growth while maximizing resource efficiency and thereby containing the environmental implications to the maximum level possible. The study indicates that the most relevant end-uses and sub-sectors with significant potential for energy efficiency in India.

To download this report, please click [here](#).

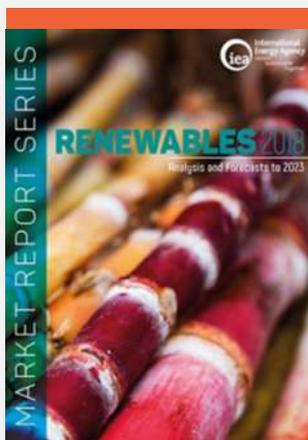
Demand Analysis for Cooling by Sector in India in 2027



This report presents a first-of-its-kind comprehensive overview of the nationwide cooling demand in India. The term 'cooling' in the context of this report implies both air conditioning, ventilation and refrigeration. The primary focus is, the preparation of demand analysis for cooling by sector in India in 2027, which includes - a) Specifying relevant segments and assessing their current cooling demand b) Prediction of two different scenarios (business as usual (BAU) versus Improved Scenario) for the cooling demand of each identified sector until 2027.

Please click [here](#) to download the report.

Market Report Series: Renewables 2018



Installation of renewable capacity continues to increase most rapidly in the electricity sector - more than 70% of additional power capacity in the world will come from renewables over the next 5 years with solar by far the lead says the new IEA Analysis and Forecast for Renewables until 2023.

To download this report, please click [here](#).

7

Upcoming Events

Intersolar India

Date : 11 to 13 December 2018

Place : Bangalore

Intersolar India is India's most pioneering exhibition and conference for the solar industry and celebrates its 10th anniversary in 2018. The event's exhibition and conference both focus on the areas of photovoltaics, solar thermal technologies, solar plants, as well as grid infrastructure and solutions for the integration of renewable energy. IGEF -SO is organizing the Indo-German Energy Dialogue on Upcoming Indian PV Niche markets in India at Intersolar India on 11 December with participation from Indian and German experts in the field of solar energy



For more information, please contact: www.intersolar.in

RenewX

Date : 19 and 20 April 2019

Place : Hyderabad

UBM India, organisers of the Renewable Energy India (REI) Expo will inaugurate the fourth edition of RenewX, a two-day exhibition at Hitex, Hyderabad. RenewX intends to accelerate the growth of the South Indian Renewable Energy and contribute to the country's sustainable economic development. The Expo will provide an excellent platform for organizations to capitalize & penetrate into the lucrative south Indian renewable energy market and will bring together professionals from the renewable energy industry in the region & will help set a growth agenda for the future. The event will offer an ideal platform to network with key renewable energy experts, showcase innovations from the world's leading companies & gather invaluable expert support, all under one roof.



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

Seminar on Flexibilization of Indian Thermal Power Plants

Date : 30 November 2018

Place : New Delhi

IGEF-SO together with Excellence Enhancement Centre (EEC), VGB Powertech and Central Electricity Authority is going to organise a seminar on Flexibilization of Indian Thermal Power Plants on 30 November 2018 at Indian Habitat Centre to share studies and experiences on Flexibilisation in German/European Thermal Power Plants. The program is designed for Senior & Middle level executives, involved in the power plant design & engineering, operation & maintenance, renovation & modernization, commercial, R&D, consultant, manufacturer, EPC contractors, policy makers, regulators and others.



For more information, please contact: [here](#)

Calling all International Innovators

Date : 9 April 2019

Place : Berlin

The Start Up Energy Transition Awards will be held again in 2019. The application phase has just been launched and is open until 31.01.2019. The Tech Festival and the award ceremony will take place on 09.04.2019, as part of the Berlin Energy Transition Dialogue (BETD).

The Start Up Energy Transition Award is an international competition for start-ups and young companies worldwide who are working on ideas affecting global energy transition and climate change.

<https://www.startup-energy-transition.com/award-2018/categories/>
five categories:

- Low-Carbon Energy Production
- Intelligent Grids, Platforms & Cyber Security
- Energy Efficiency, Smart Devices & Storage
- Innovative Mobility
- Special Prize: Quality Access & SDG-7

For more information: <http://www.startup-energy-transition.com>
www.startup-energy-transition.com.

Please click for the official trailer:

<https://www.youtube.com/watch?v=zwceWVdeoG4>



Green Banking Alumni Conference 2019

Date : 26 April 2019

Place : Mumbai

The Green Banking Alumni Conference in Mumbai offers the opportunity to bring together the network established within the course of the project. Alumni of all years as well as local partners and multipliers are cordially invited to join the event. The one-day conference is intended to give all participants the opportunity to exchange views on current global and local topics of financing energy efficiency and renewable energy. The idea is that the participants themselves become active and report on success stories in their country, to which their acquired knowledge from the Green Banking seminars contributed significantly. Interested candidates may register from 1 November until 15 December 2019. Detailed information on the workshop with regard to design, format and application formalities are available online [here](#)



For more information, please contact: greenbanking@renac.de

Up to ₹ 230 Lakhs grant per project for Indo-German R&D&I projects

Date : 9 April 2019

Place : Berlin

Indo-German Science & Technology Centre (IGSTC), established by the Department of Science and Technology (DST), Government of India, and the Federal Ministry of Education and Research (BMBF), Government of Germany, invites First Stage Proposals for joint R&D&I projects of industrial relevance in 2+2 Mode of Partnership in the following thematic areas: Sustainable Production and Clean and Green Technologies.

Funding will be provided in the form of grants amounting up to € 450.000 per project for German applicants and up to ₹ 230 Lakhs per project for Indian applicants, for a period of up to three years, to cover project related costs including manpower. An additional funding period of up to two years may be granted in exceptional cases. The Basic Guidelines and the First Stage Proposal format can be downloaded from the website: www.igstc.org



The project proposal should be submitted online here latest by 4th February 2019.

For more information please contact lalitha.pv@igstc.org

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 the 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.

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



Alexander von Humboldt
Stiftung/Foundation

Retired German energy experts offering their support to Indian institutions

You are a fresh retired German engineer with experience in Energy Efficiency and already familiar with India's rich culture? Become part of the largest retired expert's database of the world, a group of more than 10,000 experts offering their German know how free of cost to the world.

You are an Indian based company or institution and looking for a German expert to lower your expenditures for Energy?

Senior Experten Service (SES) India is constantly matchmaking German experts and Indian institutions in several fields of potential support and is also able to finance such expert visits. Senior Experten Service (SES) is the worldwide leading organization for voluntary assignments carried out by retired specialist and executives.

For further information please contact Mrs. Sharon Mogose:

sharon.mogose@indo-german.com or visit the website

<https://www.ses-bonn.de/en/startseite.html>



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Upcoming Events

Other upcoming events – Save the date!

Date : 4 and 5 December, 2018

Place : Delhi

Follow-up Seminar Program on Consumption-based power generation from solar energy and development of innovative business models

Date : 11 December, 2018

10th GRIHA Summit, <http://grihaindia.org/grihasummit/>

Date : 14 December, 2018

National Energy Conservation Day

Date : 10 and 11 January, 2019

6th International Conference and Exhibition on Energy Storage, EV and microgrids in India, <http://www.esiexpo.in/>

Date : 12 to 16 March, 2019

India Smart Utility Week 2019, <http://www.isgw.in/india-smart-utility-week-2019/>

Date : 9 and 10 April, 2019

Berlin Energy Transition Dialogue, <https://www.energiewende2018.com/>

Date : 19 and 20 April, 2019

Intersolar India, Mumbai, www.intersolar.in

Date : 10 to 13 September, 2019

<https://www.husumwind.com/husumwind/en/>

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Disclaimer

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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.

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Berlin >>

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