

INDO-GERMAN ENERGY FORUM NEWSLETTER

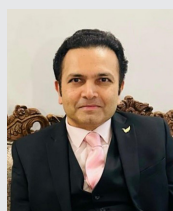
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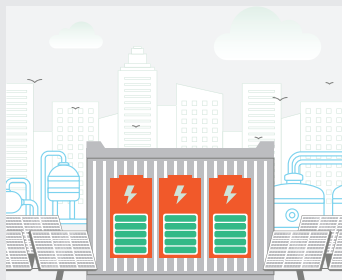
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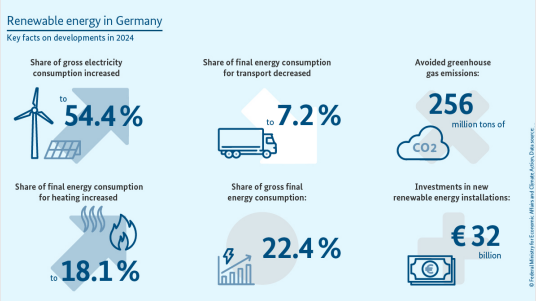


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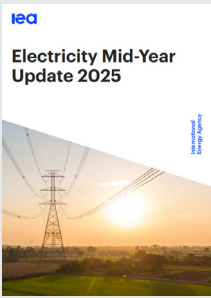
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Introduction



Shri Akash Tripathi
Additional Secretary
Ministry of Power, Govt of India

"I'm looking forward to the information exchange with Germany on grid integration of fluctuating renewable power generation. Battery storage, pumped storage, green hydrogen in the power sector and flexibilization of power plants are important topics for our bilateral cooperation under the Indo-German Energy Forum"

says Shri Akash Tripathi, Additional Secretary in the Ministry of Power, Government of India.

In his current role, Shri Tripathi oversees a wide range of critical divisions including Hydro Power, Energy Conservation (EC), Energy Transition & Electric Vehicles (ET & EV), Transmission & Reforms (T&R), Planning & Policy (P&P), International Cooperation (IC) including G20 affairs, IT & Cyber Security (IT&CS) amongst many other responsibilities.

As a firm believer in technology-driven governance, Shri Tripathi plays a crucial role in the transformation of India's power landscape. He is steering strategic policies and initiatives to enhance India's energy security assuring sustainability and affordability for the citizens of India. His leadership focuses on leveraging technology and innovation to address evolving challenges of the power sector, including grid integration of flexible renewable power generation and ensuring affordable and uninterrupted power supply for all.

Before joining MoP, Shri Tripathi has held several prominent positions throughout

his career, including CEO of the national communication platform MyGov.in, Managing Director & CEO of Digital India Corporation, and CEO of the India Semiconductor Mission amongst others. His professional journey is marked by significant contributions to digital governance and technology-led public service delivery. As CEO of the Digital India Corporation, he played a pivotal role in advancing innovation and driving digital transformation nationwide. He was instrumental in shaping and operationalising the India Semiconductor Mission and strengthened India's position in the global semiconductor ecosystem.

Shri Tripathi holds a bachelor's degree in Electronics & Telecommunication Engineering from Shri Govindram Seksaria Institute of Technology and Science, Indore, and an MBA in Finance from the Institute of Management Studies, Devi Ahilya University, Indore. He is a 1998 batch Indian Administrative Service (IAS) officer of the Madhya Pradesh cadre.

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Events and Activities

German Pavilion at India Energy Storage Week (IESW) 2025

8 - 10 July 2025 | New Delhi

The Indo-German Chamber of Commerce (IGCC), in collaboration with the Indo-German Energy Forum Support Office (IGEF-SO) and H2Uppp, successfully hosted the German Pavilion at India Energy Storage Week (IESW) 2025, showcasing Germany's commitment to supporting India's clean energy transition.

The Pavilion was formally inaugurated by Mr. Gottfried von Gemmingen, Head of Division for Economic Cooperation & Development, German Embassy New Delhi, alongside Mr. Urban Windelen, Executive Director, BVES (German Energy Storage Systems Association), Dr. Daniel Biro, Fraunhofer ISE, Mr. Clemens Antretter, GIZ India, and Ms. Shivani Chaturvedi, IGCC.

Featuring leading German companies and organisations such as Ador Digatron, BASF, FOGTEC, Fraunhofer, TLT-Turbo India / Kraftblock, thyssenkrupp nucera, BVES and the network of Women in Green Hydrogen (WiGH) - as well as representatives from Infineon Technologies and TÜV SÜD. The pavilion highlighted cutting-edge solutions in battery storage, green hydrogen, safety systems, and grid integration.

Beyond technology displays, the Pavilion served as an active B2B engagement hub, facilitating high-level discussions, policy exchanges, and new partnership opportunities between German innovators and Indian public and private sector stakeholders.

A key highlight of the event was the signing of a Memorandum of Understanding (MoU) between BVES Energy Storage Systems Association and the India Energy Storage Alliance (IESA). This strategic partnership is set to further strengthen Indo-German collaboration on advancing energy storage technologies, supporting policy dialogue, promoting best practices, and facilitating knowledge exchange between India and Germany.

By bringing together industry leaders and experts, the German Pavilion reinforced the strength of the Indo-German energy partnership and Germany's readiness to collaborate on India's path to a net-zero future.



Women in Energy Forum at the India Energy Storage Week 2025

10 July 2025 | New Delhi

At the India Energy Storage Week (IESW) 2025, gender equity took centre stage with the Women in Energy Forum, spotlighting the critical role of women in shaping India's clean energy future. Organised by the India Energy Storage Alliance (IESA) in collaboration with the Indo-German Energy Forum Support Office (IGEF-SO) and Women in Green Hydrogen (WiGH), the forum brought together diverse voices committed to building a more inclusive energy sector.

Discussions focused on expanding opportunities for women across the energy value chain – from skills development and leadership to inclusive workplace practices and entrepreneurship at the community level.

A standout voice was Ms. Anupam Nidhi of Vedanta Group, who shared how dedicated actions can help women excel in traditionally male-dominated fields like mining and critical minerals. She highlighted initiatives such as India's first all-women mine rescue unit, safety

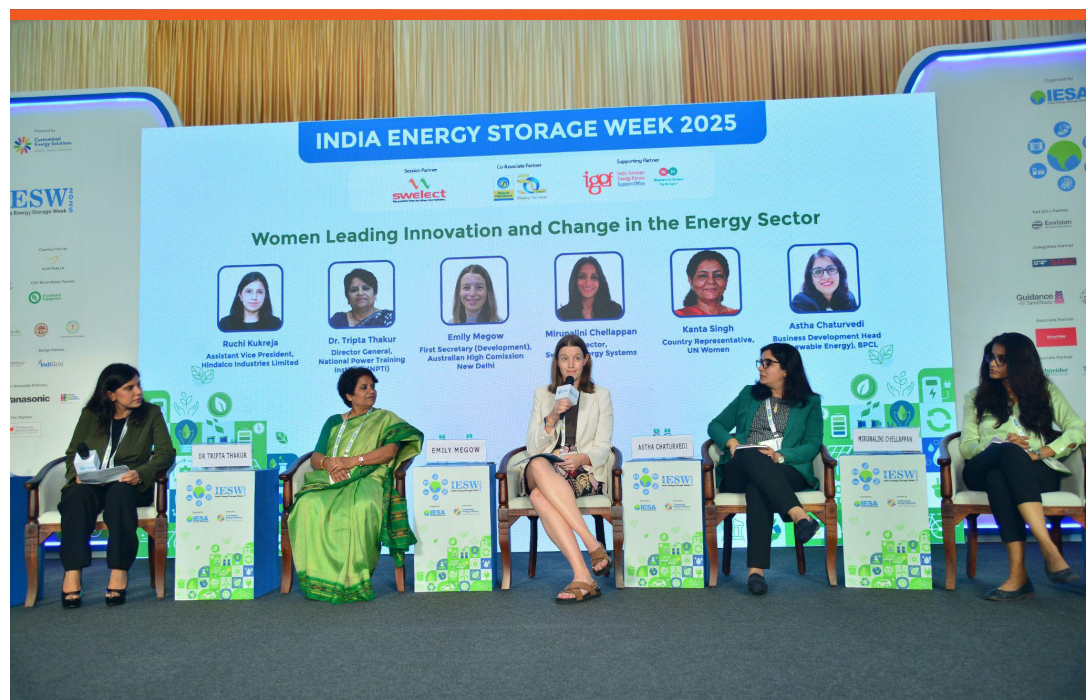
awareness programmes, and entrepreneurship development for women – all aimed at linking secure energy access and resource availability to a successful green transition.

While progress is evident, the forum also served as a call to action. Women still occupy only a small share of leadership roles in India's energy sector. Panellists stressed the need for inclusive hiring, mentorship, retention strategies, and supportive policies that enable women to build long-term careers.

Speakers also showcased innovations led by women – from biofuel production from waste oils, battery material research, and circular economy models, to expanding electric mobility through gender-responsive financing solutions.

The forum reinforced a simple message: a just and sustainable energy transition must be inclusive – and women are central to making it happen.

Panel discussion at the women in energy forum.





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H2Uppp

International Hydrogen
Ramp-up Program



GH2 India

India Pavilion at World Hydrogen Summit 2025

19 May 2025 | Rotterdam, Netherlands

For the second consecutive year, India established a strong presence at the World Hydrogen Summit & Exhibition 2025 in Rotterdam, Netherlands, with a dedicated national pavilion. Hosted by the Ministry of New and Renewable Energy (MNRE), Government of India, the India Pavilion was one of the largest country pavilions at the exhibition and was officially inaugurated on 19 May by Shri Santosh Kumar Sarangi, Secretary, MNRE.

In his inaugural address, Shri Sarangi highlighted green hydrogen's pivotal role in decarbonising sectors such as steel, transport, and shipping, and emphasised India's ambitions under the National Green Hydrogen Mission. He also highlighted India's close collaboration with many EU countries, including Germany and the

Netherlands, in advancing the global hydrogen economy.

His Excellency Shri Kumar Tuhin, Ambassador of India to the Kingdom of the Netherlands, also addressed the gathering at the India Pavilion. Shri Abhay Bakre, Mission Director, National Green Hydrogen Mission, MNRE, shared opening remarks, underscoring the mission's vision and strategic direction.

Dr. Christian Storost, Head of Division, International Hydrogen Ramp-Up, Federal Ministry for Economic Affairs and Energy (BMWE), welcomed the longstanding India-Germany partnership, highlighting the importance of energy partnerships in advancing joint green hydrogen projects.

Ceremonial opening of the Indian pavilion at the World Hydrogen Summit on May 20.



Business Delegation on Green Hydrogen in May 2025: Green Hydrogen Developments in the Rhine-Ruhr Metropolitan Region

18-24 May 2025 | Rhine-Ruhr Metropolitan Region

As part of a week-long study tour on green hydrogen, an Indian business delegation visited the Rhine-Ruhr metropolitan region in Germany from 18 - 19 May 2025. Organised by the Indo-German Energy Forum Support Office (IGEF-SO), GH2 India, Indo-German Chamber of Commerce (IGCC), and H2Uppp, the visit offered valuable insights into real-world hydrogen applications and industrial decarbonisation strategies.

The delegation's journey began in the Rhine-Ruhr metropolitan region, Germany. At Westenergie AG's H2HoWi site, participants witnessed a live demonstration of 100% green hydrogen being transported through existing natural gas pipelines. The facility integrates hydrogen storage, pressure regulation, odorization, and compatible heating systems to test real-world applications for future hydrogen networks.

The group then visited Evonik at the Chempark Marl, where green technologies for use as chemical feedstocks are being developed. Evonik

is aiming to scale up production to 200,000 tons of green Hydrogen annually by 2045. Highlights included a 100 MW electrolyser supplying on-site chemical production, an ammonia cracker hub for reconverting imported green ammonia, and a direct-air-capture for an eMethanol project. The site is connected to the GET H2 hydrogen pipeline network, anchoring it in Germany's emerging hydrogen infrastructure.

On the second day, the delegates toured Thyssenkrupp steel facility in Duisburg, Germany's largest steel producer. The company is transforming its production with tkH₂Steel®, a direct reduction (DR) plant using green hydrogen and renewable energy, replacing traditional blast furnaces. Set for commissioning in 2027, the project is one of Europe's most ambitious steel decarbonisation efforts. A recent green hydrogen supply tender also drew strong interest from the delegates, reflecting growing momentum in the sector.

Participants of the Indian delegation during their visit to the thyssenkrupp Steel Europe AG plant in Bruckhausen near Duisburg.



Participants of the Indian delegation during their visit to the Chempark Marl.



Business Delegation on Green Hydrogen in May 2025: Insights from World Hydrogen Summit & Exhibition 2025

20 - 22 May 2025 | Rotterdam, Netherlands

The Indian business delegation, supported by the Indo-German Energy Forum Support Office (IGEF-SO), GH2 India, the Indo-German Chamber of Commerce (IGCC), and H2Uppp, participated in the World Hydrogen Summit & Exhibition 2025, held in Rotterdam, Netherlands, from 20 - 22 May. The summit served as a global platform to explore the latest trends, innovations, and opportunities in the green hydrogen sector.

As part of the summit experience, delegates took part in a guided tour of the exhibition on 20 May. This allowed them to connect with leading hydrogen technology providers and solution developers, particularly those with a growing interest in India's emerging green hydrogen

market. The group visited company booths of SFC Energy, Uniper Hydrogen GmbH, Linde and Thyssenkrupp Nucera.

Participants had the opportunity to exchange insights with international industry representatives, explore business synergies, and gather practical knowledge for hydrogen deployment in their home countries.

By interacting with industry leaders and innovators, the delegation gained valuable exposure to global best practices and partnership models that can support India's transition to a green hydrogen economy.



Business Delegation on Green Hydrogen in May 2025: Europe's Emerging Hydrogen Gateway – Port of Rotterdam

23 May 2025 | Rotterdam, Netherlands

In addition to the summit, the Indian delegation explored key green hydrogen developments at the Port of Rotterdam on 23 May, one of Europe's most ambitious hydrogen hubs. The port tour provided a firsthand look at the infrastructure, projects, and logistics shaping the region's future as a major green hydrogen gateway.

The tour included stops at ammonia terminals of Kooze, OCI, and Gunvor, where green ammonia imported from international markets will be stored and eventually reconverted into hydrogen. These terminals are part of a broader plan to establish a secure and scalable hydrogen import infrastructure.

Delegates also visited a transformer station supplying electricity from offshore wind farms to power upcoming green hydrogen production sites. This highlights how renewable energy is being directly integrated into hydrogen generation infrastructure.

A significant part of the tour was the Hynetwork hydrogen pipeline, the backbone of Rotterdam's hydrogen distribution system. It passed the Shell Energy and Chemicals Park Rotterdam, Europe's largest refinery with a capacity of 400,000 barrels per day.

The tour concluded with a look at the largest planned electrolyser field in Europe – a 650 MW green hydrogen production zone that includes projects led by Shell, BP, and Air Liquide. Delegates also visited SIF's offshore wind foundation manufacturing and storage facility, including the GE Haliade-X 14 MW wind turbine.

This in-depth tour offered the delegation valuable insights into how ports, infrastructure, and industry are coming together to create an integrated green hydrogen ecosystem—lessons that can be adapted to India's coastal and industrial corridors.





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Government of the Netherlands



EU-India Networking Reception on Green Hydrogen Developments at World Hydrogen Summit 2025

21 May 2025 | Rotterdam, Netherlands

On the occasion of the visit of the Indian delegations with high-level representatives from the Government of India and green hydrogen companies, IGEF-SO and H2Uppp in collaboration with MNRE, the Government of the Netherlands, the Port of Rotterdam, the Indo-German Chamber of Commerce, GH2 India and the European Union organised an EU-India Networking Reception on Green Hydrogen Developments on 21 May.

Ms. Caroline Kollau, Director, Energy Market and Deputy DG, Climate & Energy at the Ministry of Economic Affairs and Climate Policy, Netherlands, underscored the pivotal role of international partnerships in building a robust green hydrogen ecosystem.

Shri Santosh Kumar Sarangi, Secretary, MNRE, articulated India's policy roadmap under the National Green Hydrogen Mission, emphasising ambitious targets, enabling frameworks, and the urgent need for globally harmonized certification systems.

Shri Abhay Bakre, Mission Director, further highlighted the importance of developing a comprehensive and transparent methodology for green hydrogen production that aligns with EU standards.

Mr. Tudor Constantinescu, Principal Adviser and Director at the Directorate General for Energy, European Commission, acknowledged the strong engagement and collaborative spirit present at the gathering. He noted that this progress reflects how far the partnership between the EU and India has come, not only in green hydrogen development but across wider climate and energy goals.

As global interest in hydrogen continues to rise, such forums play a vital role in accelerating the deployment of clean energy technologies, fostering innovation, and building a competitive and inclusive international hydrogen ecosystem.

Dr. Christian Storost,
Head of Division,
International Hydrogen
Ramp-Up, Federal
Ministry for Economic
Affairs and Energy
(BMWE), addressing
the participants of the
EU-India Networking
Reception on Green
Hydrogen Developments.



Workshop on National Green Hydrogen Mission – Opportunities for MSMEs

29 April 2025 | New Delhi

The Ministry of New and Renewable Energy (MNRE) organised a one-day National Workshop on opportunities for “Micro, Small & Medium Enterprises (MSMEs) in the Green Hydrogen Supply Chain”, at New Delhi on 29 April 2025, supported by the Indo-German Energy Forum Support Office (IGEF-SO), H2Uppp, and GH2 India.

The workshop was aimed at exploring opportunities and discussing the key role of MSMEs in the development of the green hydrogen ecosystem in India. Over 300 delegates drew participation from different stakeholder groups, including MSMEs, policymakers, technology providers, industry associations, and international partners.

Delivering the inaugural address, Shri Pralhad Venkatesh Joshi, Hon'ble Union Minister of New and Renewable Energy, highlighted the government's commitment to fostering innovation-led growth and emphasised that MSMEs will serve as the backbone of India's energy transition through their innovative capabilities and localised solutions. He highlighted the critical role MSMEs will play in realising the Mission's objectives of building a self-reliant green hydrogen ecosystem by 2030.

The Hon'ble Union Minister also launched the Green Hydrogen Certification Scheme of India (GHCI). He mentioned that the scheme is a foundational step towards creating a robust framework for certifying green hydrogen production and ensuring transparency, traceability, and market credibility.

Shri Santosh Kumar Sarangi, Secretary, MNRE, highlighted some key achievements in the implementation of the National Green Hydrogen Mission. He stressed upon the importance of building capacities, facilitating finance, and strengthening technology linkages to empower MSMEs to meaningfully participate in this new industrial landscape. He reiterated the Ministry's

commitment to building institutional and infrastructural support for green hydrogen, with MSMEs playing a critical role.

The workshop included four focused technical sessions as follows:

- ▶ **Technology Collaboration for MSMEs:** Panelists deliberated on R&D collaboration models, indigenisation of components such as bipolar plates and electrolyzers, and the role of knowledge institutions.
- ▶ **Business Opportunities in the Green Hydrogen Supply Chain:** Discussions centered on the integration of MSMEs into large-scale projects. Experts from international agencies and corporate leaders outlined business models and market opportunities, advocating for systematic MSME engagement strategies.
- ▶ **Decentralised Hydrogen Production through Biomass:** Expert speakers presented use cases on thermochemical and biochemical conversion of biomass to hydrogen, exploring their application in rural industries. The session highlighted the potential of decentralised models to meet local demand while promoting circular economy principles.
- ▶ **Catalysing Investments in the Green Hydrogen Ecosystem:** Financial institutions, including the World Bank, IREDA, KfW, and IIFCL, discussed de-risking strategies, blended finance mechanisms, and the need to design green credit lines accessible to MSMEs.

The workshop marked an important step towards mainstreaming MSMEs in India's clean energy transition and showed MNRE's commitment towards building an inclusive, technology-driven, and decentralised green hydrogen economy. The workshop saw active participation from MSMEs, who showed strong interest in entering the green hydrogen sector, particularly in areas such as component manufacturing, operations

and maintenance services, and rural hydrogen generation. Participants emphasised the need for standardised protocols, shared platforms for joint innovation, and the formation of Green Hydrogen Clusters to help MSMEs combine capacities and benefit from economies of scale. The discussions also highlighted the importance

of clear demand signals and long-term policy stability to encourage private investment. Experts noted India's strong potential to emerge as a manufacturing hub for green hydrogen technologies, especially electrolyzers and fuel cells.

India's Green Hydrogen Certification was launched by the Hon. Minister Pralhad Joshi, Secretary Shri Santosh Sarangi and Shri Sujit Pillai.



HINT.CO Roadshow on 2nd H2Global tender

7 April 2025 | Mumbai

On the occasion of the launch of its second H2Global tender, HINT.CO GmbH visited Mumbai, India, on 7 April as part of its global roadshow. The event was organised by HINT.CO GmbH and supported by the Indo-German Energy Forum (IGEF-SO), the International Hydrogen Ramp-up Programme (H2Uppp), the India Hydrogen Alliance (IH2A), Green Hydrogen India (GH2 India), the Hydrogen Association of India (HAI), and the Indo-German Chamber of Commerce (IGCC).

Dr. Christian Storost, Head of Division "International Hydrogen Ramp-up", German Federal Ministry for Economic Affairs and Climate Action (BMWK), welcomed the participants and emphasised that hydrogen and its derivatives will play a crucial role in driving Germany's industrial decarbonisation. Germany will import hydrogen in the future and is committed to forge a strong partnership with India.

The hybrid event served as a platform for Hintco to introduce the tender's auction design, explain eligibility criteria, bid preparation and engage with Indian producers of renewable hydrogen

and its derivatives (RFNBOs). Hintco's core task is the preparation and implementation of competitive bidding processes for the purchase and sale of clean hydrogen-based products and other low-emission fuels, contributing to a global energy transition.

This second H2Global tender follows EU Commission approval and offers four regional lots and one global lot, with a total volume of EUR 2.5 billion–potentially rising to nearly EUR 3 billion subject to final budget clearance.

Around 150 participants, including project developers and industry stakeholders involved in RFNBO production, joined the event. Their strong interest highlighted India's growing commitment to clean hydrogen.

"Indian producers came ready with thoughtful questions, strong project ambitions, and a clear appetite to engage. It was energising to see the level of interest and technical insight in the room. Participants left with a clear understanding of the H2Global auction—and a renewed sense of momentum around India's role in it." – Timo Bollerhey, CEO of Hintco.

Dr. Christian Storost
and Mr. Timo Bollerhey
addressing the
participants.



Green Hydrogen India Symposium

4 April 2025 | New Delhi

The Indian Green Hydrogen Organisation (GH2 India) hosted its second Green Hydrogen India Symposium on April 4, 2025, in New Delhi, with IGEF-SO and H2Uppp as supporters. Over 100 representatives, mainly from industry, but also from politics and research, came together. The full-day event covered all topics from project development to green shipping and off-take in nine sessions. More than 35 speakers provided insights into current developments. The symposium was also marked by the visit of the German hydrogen delegation (BMW, H2Global, Hint.Co) to India. In an exclusive lunch attended by the German Embassy, AHK India, representatives of BMW, H2Global and Hint. Co on the German side and representatives of MNRE and SECI on the Indian side as well as leading company representatives from the Indian hydrogen market and KfW, the potential of future hydrogen exports from India to Germany was discussed. The symposium ended with a joint networking event. Further supporters of the event were the Hydrogen Association India (HAI).



India Participates in the 11th Berlin Energy Transition Dialogue (BETD)

18 – 19 March | Berlin

The 11th edition of the Berlin Energy Transition Dialogue (BETD) was held on 18 – 19 March in Berlin, bringing together high-level representatives from government, industry, research, and civil society. Recognised globally as a key forum for dialogue on the future of sustainable energy, the conference served as a platform for international collaboration and exchange.

India was represented by a delegation of around 15 individuals from industry, academia, and associations, reflecting the country's active engagement in the global energy transition.

A key highlight was the keynote address by Dr Rashi Gupta, Founder and Managing Director of Vision Mechatronics Private Limited. In her remarks, she stated, "This is our moment—not just for a transition, but from a transition to a transformation," emphasising the importance of

moving towards deeper, more systemic changes in the energy sector.

As part of the BETD side events, a panel discussion was held on "India's Wind Energy Landscape: Unlocking Business Opportunities and Building Strategic Partnerships." The session brought together public and private stakeholders from India and Germany to explore investment opportunities and address challenges in the Indian wind energy market.

The discussion was co-organised by the German Federal Ministry for Economic Cooperation and Development (BMZ) and the Federal Ministry for Economic Affairs and Energy (BMWE). The dialogue underscored the shared interest and commitment of both countries to deepen cooperation in the wind energy sector, recognising its critical role in achieving sustainable development and climate goals.

Participants of the side event jointly organised by BMWK and BMZ on the topic of wind energy in India.



EU RFNBO certification workshop

5-7 March | New Delhi

A two-day expert training and stakeholder workshop on the certification requirements for Renewable Fuels of Non-Biological Origin (RFNBO) for export to the European Union was held on 5 and 7 March 2025 in New Delhi. The event was jointly organised by the Ministry of New and Renewable Energy (MNRE), the Indo-German Energy Forum (IGEF-SO), and the International Hydrogen Ramp-Up (H2Uppp), in collaboration with CertifHy, HINICIO, LBST, and TÜV SÜD, with support from GH2 India.

The event brought together over 45 key project developers, policy experts and regulators, to deepen the understanding of EU certification requirements for RFNBOs and foster collaborative solutions. Topics covered included electricity sourcing, Greenhouse gas (GHG) calculation, mass balancing, and certification management.

Shri Abhay Bakre, Mission Director of the National Green Hydrogen Mission, MNRE, opened the 2nd day of the workshop by sharing his vision for India's hydrogen future. He stated that building clarity around certification is one of his top priorities as the country works to scale up its green hydrogen ecosystem.

Representing the Delegation of the European Union to India, Ms. Smita Singh, highlighted Europe's long-standing partnership with India in solar and wind energy. In order to help India access the global market and accelerate decarbonisation, she urged similar momentum in the hydrogen sector, pointing out that EU RFNBO certification will be essential.

Mr. Abhilash Rajvanshi, from the MNRE stressed that certification is proof of green hydrogen's sustainability, credibility, and global acceptance. For Indian stakeholders, he said, understanding these rules will open doors to large international markets.

Mr. Jan-Hendrik Scheyl, H2Uppp and International Power-to-X (PtX) added that the

main goal of the event was to provide clarity on EU RED II certification for hydrogen & PtX products. As more industries explore offtake agreements, clarity on certification is key to securing a place in the global green hydrogen economy.

Mr. Matthias Altmann, Senior Consultant at Ludwig Bölkow-Systemtechnik GmbH, Mr. Pierre Krenn, Project Manager at CertifHy together with Matthieu Boisson, Managing Director at CertifHy and Michael Landspersky, TÜV SÜD, delivered profound sessions addressing regulatory compliance of Power-to-X projects located in India, as well as the practical realisation of the RFNBO certification process under the EU Renewable Energy Directive (RED II).

The second day focused on hands-on learning through real case studies—ranging from hydrogen to ammonia, e-SAF, and e-methanol. Participants worked in teams to understand the practicalities of certification. A strong emphasis was placed on accurate GHG calculations—making sure emissions from production, transport, and use of hydrogen are clearly defined, recorded, and ready for audit as per EU RED II rules.

Key takeaways included the need for transparent documentation, awareness of compliance risks, and a deeper look at how EU certification relates to mechanisms like the Carbon Border Adjustment Mechanism (CBAM). Discussions also covered India's unique single bidding zone—an advantage due to its connected grid and low congestion.

The 2-day expert training and stakeholder workshop created space for rich discussion, technical insights, and meaningful engagement between project developers, certification experts, regulators and policy experts.

More information [here](#).

Business Roundtable at ELECRAMA

24 February | New Delhi

The Indo-German Chamber of Commerce, H2Uppp, and IGEF-SO organised a business roundtable to promote Indo-German green hydrogen projects at ELECRAMA in Delhi on 24 February 2025. Participants included the German Embassy, GTAI and GH2 India. The event brought together Indian and German project developers

as well as representatives of associations and research organisations. Among other things, H2Uppp and the PtX Development Fund were presented. Afterwards, around 20 representatives from private companies were able to exchange ideas and network. The roundtable was supported by the BMWK-funded H2Uppp project.

Participants of the
Business Roundtable
for the promotion of
Indo-German green
hydrogen projects
within the framework of
ELECRAMA.



Business Roundtable on Green Shipping

21 February | New Delhi

The Indo-German Chamber of Commerce (IGCC) in collaboration with the Indo-German Energy Forum (IGEF-SO) organised a business roundtable on 'Green Shipping' on 21st February in Powai, Mumbai. The roundtable was hosted at a pivotal moment, aligning with the Green Shipping Conclave on 20 February and the growing momentum in India's maritime decarbonisation efforts.

Mr. Stefan Halusa, Director General, IGCC, welcomed the participants and set the tone for the roundtable. He highlighted the need for collaborative efforts to drive sustainability in the sector. He encouraged the participants to share insights, challenges and innovative solutions to accelerate the transition towards cleaner maritime practices.

Ms. Josefine Pallesen, Maritime Counsellor, Embassy of Denmark in India, emphasised Denmark's commitment to maritime decarbonisation through global partnerships,

including its collaboration with India on green shipping. She highlighted the importance of universal standards in creating a level playing field, driving market growth, and accelerating the green transition.

Ms. Paulina Chromik, Second Secretary for Economic and Commercial Affairs, Netherlands Embassy in India, highlighted the active role of the Netherlands including Port of Rotterdam in advancing green ports, including collaborations with the Government of India & port authorities to develop green corridors.

Mr. Karan Arora presented on "Sustainable Shipping: Future Fuels & the Path to Net-Zero 2050", exploring efficiency measures, wind-assisted propulsion, battery-electric ships & the pivotal role of PtX fuels in defossilising maritime transport.

Mr. Kumar Abhishek briefed the audience about the German funding schemes for green hydrogen



projects highlighting opportunities available through the PtX Development Fund, H2Uppp and Hintco GmbH's second H2Global auction for India's green hydrogen and ammonia sector.

Ms. Eleanor C. and Mr. Joe Boyland, Global Maritime Forum shared insights on green shipping corridors, leading to discussions on India's priorities. An analysis tool was introduced to assess sustainable shipping routes through collaboration & data-driven approaches.

Mr. Philipp Wittrock, International Power-to-X Hub focused on the importance of aligning industry efforts with IMO regulations, ensuring compliance while accelerating the transition to green fuels.

Mr. Debesh Lahiri & Dr. Piyali Das, TERI - The Energy and Resources Institute highlighted the importance of the Greenhouse Gas Fuel Index in evaluating low-carbon marine fuels based on lifecycle emissions.

Mr. Amrit Singh Deo, India Hydrogen Alliance (IH2A) shared insights on developing green hydrogen & ammonia hubs in India, with coastal shipping driving methanol & ammonia adoption.

Mr. Arjun Mehta, GH2 India introduced the Green Ports & Shipping Network, a platform connecting ports, shipping, fuel developers & policymakers to align policies, share best practices & accelerate decarbonisation.

Shri Anand Raidurg, Maharashtra Energy Development Agency (MEDA) highlighted the efforts of Maharashtra in supporting the hydrogen & derivatives ecosystem. The state is playing its part in promoting appropriate hub related infrastructure while also promoting Vadhavan Port for future shipping activities.

Participants emphasised the urgency of infrastructure development, green fuel adoption & regulatory alignment to strengthen India's leadership in sustainable maritime transport.

Director General of IGCC,
along with participants
from the 1st Green
Shipping Roundtable in
Mumbai.



Launch of the Women in Green Hydrogen (WiGH) South Asia Chapter

12 February | New Delhi

On 12 February 2025, the Women in Green Hydrogen (WiGH) South Asia Chapter was officially launched during the smarter E India, Gandhinagar, marking a significant step towards fostering inclusivity and diversity in the region's hydrogen sector.

Since its inception, WiGH has grown into a global platform, connecting over 1,100 women professionals across more than 75 countries. Through mentorship programs, networking events, and policy advocacy, the network has been instrumental in amplifying women's voices in green hydrogen.

The main objectives of the WiGH South Asia Chapter are to:

- Identify and monitor the challenges faced by women working in the green hydrogen ecosystem and develop an action plan to make it more attractive to women
- Promote the empowerment of women and groups by connecting them to international networks, participating in (international) mentoring or internship programmes, and up-scaling successful approaches.

Key activities of the WiGH South Asia Chapter will be:

- Training and capacity building
- Networking events

- Awareness campaigns in collaboration with government agencies and local organisations

With India's National Green Hydrogen Mission, Nepal's hydropower potential, and emerging clean hydrogen initiatives in neighboring countries, South Asia is poised to become a key player in the global hydrogen economy. However, for this transition to be truly sustainable, it needs to be inclusive—and women's expertise in research, policymaking, finance, and project execution is vital to the industry's success.

The launch event featured a panel discussion on "Navigating Challenges and Unlocking Opportunities for Gender Inclusion in India", bringing together industry leaders and changemakers to discuss pathways for greater diversity and leadership in the sector.

The WiGH South Asia Chapter launch was supported by the Indo-German Energy Forum (IGEF-SO), the International Hydrogen Ramp-Up Program (H2Uppp), the Indo-German Chamber of Commerce, The smarter E India, and HyOn Energy.

Together, stakeholders are taking a step forward in building a more diverse, connected, and inclusive green hydrogen community in South Asia.



The smarter E-India

12-14 February | New Delhi

The Indo-German Chamber of Commerce (IGCC), in collaboration with the Indo-German Energy Forum (IGEF-SO), organised the first business roundtable of 2025 on 'Green Hydrogen' on the sidelines of The smarter E India/ InterSolar India on 12th February in Gandhinagar, Gujarat. The roundtable brought together key stakeholders to discuss market developments and opportunities for Indo-German Green Hydrogen projects.

Ms. Shivani Chaturvedi, Regional Director, IGCC, welcomed the participants and set the tone for the roundtable. She highlighted the German industry's anticipated demand for energy imports, including green hydrogen and its derivatives, estimated at 1.5 – 2.7 MTPA, and emphasised the potential for Indo-German collaboration in this sector.

Mr. Anirban Kundu, IGEF-SO, informed participants about the second call for Expression of Interest for the €270 million PtX Development Fund by the Federal Ministry for Economic Cooperation and Development (BMZ). The Fund aimed to promote green hydrogen and its derivatives in developing and emerging economies, including India, by offering non-reimbursable grants to industrial-scale projects at various stages along the green hydrogen value chain to trigger further investments. More information was available at www.ptx-fund.com.

Mr. Arjun Mehta, Advisor, GH2 India, provided an overview of India's National Green Hydrogen Mission. He spoke about GH2 India's role in catalyzing investments in green hydrogen projects in India by bringing together the government, industry, and financial institutions.

Mr. Kumar Abhishek, IGEF-SO, briefed the audience about the German funding schemes for green hydrogen projects. He laid out the objectives of Germany's 'National Hydrogen Strategy' and the grant funding initiatives such as the International Hydrogen Ramp-Up Program (#H2Uppp). He also explained the H2Global-Hintco's double-sided auction-based market-making instrument, supported by the German Federal Ministry for Economic Affairs and Climate Action (BMWK), in catalyzing the hydrogen and derivatives market worldwide. The second round of the H2Global auction, amounting to €3 billion, was already approved by the EU.

The presentation was followed by detailed discussions, moderated by Clemens Antretter, with senior industry representatives from ports, renewable energy developers, associations, energy companies, research organisations, and startups. The session fostered a valuable exchange on funding opportunities to accelerate Indo-German collaboration in the sector.

Participants of the
Business Roundtable to
promote Indo-German
green hydrogen projects
as part of The Smarter
E India.



Panel Discussion on Emerging Trends in Agrivoltaics at The smarter E India, Gandhinagar

13 February 2025 |

On 13 February 2025, a panel discussion on the Emerging Trends in Agrivoltaics took place at The Smarter E India, Gandhinagar, Gujarat, focusing on the emerging advancements and breakthroughs in Agrivoltaics. The session brought together experts to discuss the prospects of Agrivoltaics in India, highlighting its potential to transform both the energy and agricultural sectors.

Mr. Vivek Saraf, CEO, Sunseed APV, provided valuable insights into the successful implementation of Agrivoltaic projects in India. He elaborated on various case studies, discussing the outcomes, challenges, and key lessons learned from these projects. His talk emphasised the importance of considering agricultural requirements during the design of an Agrivoltaics plant, creating a balance between energy production and agricultural productivity and ensuring that both sectors thrive simultaneously.

Mr. Sanmati Naik from Fraunhofer ISE shared his expertise on the specific challenges and opportunities of implementing Agrivoltaics in India. He explored the country's unique agricultural landscape and how AgriPV can

help address critical issues like water scarcity and land use optimisation. His presentation underscored the need for tailored solutions to ensure the technology is both effective and scalable in diverse Indian geo-climatic conditions.

Mr. Nisheeth Srivastava, KfW discussed the financial aspects of Agrivoltaic projects in India. He highlighted the challenges surrounding mobilizing investments in agrivoltaics, including the need for innovative funding models and stronger policy support. Nisheeth also pointed out the need for model demonstration plants in India to emphasize on the potential of Agrivoltaics to attract both public and private investment.

The panel discussion highlighted the immense potential of Agrivoltaics to drive sustainable growth at the intersection of renewable energy and agriculture in India. The insights shared by the experts underscored the importance of collaboration and tailored solutions to ensure the Agrivoltaics' successful adoption, offering a promising future for both farmers and the nation's renewable energy goals.



Developments in Indo-German Energy Cooperation



giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Powering Blue Economies through Distributed Renewable Energy

10 July 2025 | Assam

On 10 July 2025, GIZ India participated in a panel discussion ahead of the launch of India's first Aqua Tech Park in Bagibari, Kamrup (M), Assam, marking a significant milestone for the country's blue economy. Organised by Kalong-Kapili, the event convened stakeholders from policy, finance, research, and the community to discuss how decentralised renewable energy (DRE) can power sustainable and inclusive aquaculture systems.

Drawing from its work across rural India, GIZ India shared practical insights on the role of clean energy as a driver of both productivity and social equity. The team emphasised the importance of integrating DRE into livelihood ecosystems, designing gender-responsive energy access models, and developing innovative

financing mechanisms tailored for smallholder fish farmers, especially women and youth.

The Aqua Tech Park, inaugurated by the Hon'ble Chief Minister of Assam on 12th July 2025, represents a living model of how aquaculture, technology, and renewable energy can come together to shape a climate-resilient and equitable future.

As a knowledge partner, GIZ India is proud to support this cross-sectoral initiative and remains committed to enabling knowledge exchange, capacity building, and systems transformation in Assam and beyond.

For more information, contact Ms. Perna Sharma ([perna.sharma\(at\)giz.de](mailto:perna.sharma(at)giz.de)).

Hon'ble Chief Minister of Assam, Dr. Himanta Biswa Sarma, along with key dignitaries, stands in solidarity with partners and stakeholders at the inauguration of India's first Aqua Tech Park at Kalong-Kapili, on 12th July 2025—marking a milestone in sustainable aquaculture and clean energy integration.



Hon'ble Minister of Fisheries, Government of Assam, addresses stakeholders on the occasion of National Fish Farmers' Day 2025 on 10th July at the Aquaculture Field School, Kalong-Kapili, highlighting the state's vision for sustainable aquaculture and community-driven innovation.



GIZ India shares insights on integrating decentralized renewable energy into sustainable aquaculture value chains during the panel discussion at the Aqua Tech Park pre-launch event in Bagibari, Assam, on 10th July 2025.



Powering a Greener Tomorrow: Inaugurating KfW financed Solar Park in West Bengal

22 April 2025 | Goaltore / Midnapore

On 22 April 2025, the Honourable Chief Minister of West Bengal, Smt. Mamata Banerjee, inaugurated the Goaltore Solar Park, West Bengal's first large-scale solar installation. The project is supported by KfW—on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ)—through a concessional loan of €75 million.

The Solar Park will advance West Bengal's energy landscape by adding 175,000 MWh of solar electricity to the grid each year, avoiding emissions of around 163,000 tonnes of CO₂-equivalent yearly. With an estimated consumption of 733 kWh per person and year (in the state of West Bengal) the project will provide renewable energy to approximately 240,000 individuals annually. With an average of four people per household, this translates to around 60,000 households benefiting from clean energy and contributing to a more sustainable future.

The project also represents a remarkable increase in solar capacity in West Bengal, boosting it by about 60% from 194 MW to 306.5 MW. This expansion serves as proof that solar photovoltaic technology can be successfully implemented outside the main solar hubs, paving the way for a more diversified renewable energy portfolio across the region.

Locally produced solar power will be supplied directly to consumers via the West Bengal State Electricity Distribution Company Limited (WBSEDCL) grid, improving energy access in the region.

Given the land scarcity in West Bengal, the solar system is using the flexibility of solar photovoltaic technology to adapt to the available space. The panels are being installed around existing dense forest patches, preserving biodiversity and minimizing the impact on the local population. The local community can still access and cross the land sections. The use of satellite- and drone imagery enabled the teams to customise the park to the local conditions.

The system has also been designed for the severe climatic conditions of the region, particularly the strong winds during cyclones by installing the solar modules with East-West orientation. This is a first-of-its kind approach in India.

All the while, the project adheres to international social and environmental standards, demonstrating exemplary health and safety practices during construction. For instance, the workers quarters were set up with a quality of living above the current market practice; a much-welcomed measure, in particular during the hot months of the year. BMZ also provided funds for training for WBSEDCL staff on solar energy technology, including future technologies like floating solar. Increasing technical capacities enables the stakeholders to develop more of such projects in the future.

For more information, contact Mr. Stefan Kliesch, Head of Energy Team, ([stefan.kliesch\(at\)kfw.de](mailto:stefan.kliesch(at)kfw.de)); Mr. Rahul Thakur, Energy Specialist, ([rahul.thakur\(at\)kfw.de](mailto:rahul.thakur(at)kfw.de)).



Visit of Ambassador Dr. Philipp Ackermann to KfW Financed 110 MW Pare Hydroelectric Project

28 March 2025 | Pare Hydro Electric Project, near Itanagar, Arunachal Pradesh

On 28 March 2025, German Ambassador to India and Bhutan, Dr. Philipp Ackermann, visited the 110 MW Pare Hydroelectric Project as part of his weeklong tour of development cooperation projects in Meghalaya, Assam, and Arunachal Pradesh. He was accompanied by officials from the German Consulate in Kolkata and the KfW India Office.

Welcomed by female colleagues of North-Eastern Electric Power Corporation Limited (NEEPCO) in traditional attire and local folk dance, the Ambassador toured various sections of the power plant and dam area. He engaged with engineers and operational staff, and later planted a tree to commemorate the visit. Dr. Ackermann expressed his appreciation for the successful commissioning of the green energy project with the support of German Financial Cooperation. He was delighted to learn that the project has provided local employment, aided growth of local businesses, and tourism in the area.

Located 35 km from Itanagar, the Pare Hydroelectric project is a run-of-the river scheme that utilises water from the Pare river and tail race discharges from Ranganadi

Hydroelectric Plant – I (405 MW). The Project was implemented to meet peak power requirements. It was developed to meet peak power demand and is owned and operated by NEEPCO, a wholly owned subsidiary of NTPC Ltd.

The project, commissioned in May 2018, generates approximately 500 GWh annually. Under the Indo-German Financial Cooperation, KfW provided a EUR 100 million concessional loan, along with EUR 0.5 million in grant funds for accompanying measures. During construction, the project employed several thousand workers, and currently over 200 people operate the plant, including more than 50 women.

Rehabilitation & Resettlement (R&R) for affected communities were implemented in line with recommendations from the committee set up by the Govt. of Arunachal Pradesh.

For more information, contact Mr. Stefan Kliesch, Head of Energy Team, KfW Office Delhi ([stefan.kliesch\(at\)kfw.de](mailto:stefan.kliesch(at)kfw.de)); Mr. Nisheeth Srivastava, Senior Energy Specialist ([nisheeth.srivastava\(at\)kfw.de](mailto:nisheeth.srivastava(at)kfw.de)); and Mr. Ramana Reddy, Senior Energy Specialist, KfW Office Delhi ([ramana.reddy2\(at\)kfw.de](mailto:ramana.reddy2(at)kfw.de)).



Solar on Wheels BSES Surya Rath Drives Delhi Towards a Greener Future

19 March 2025 | New Delhi

In a significant move to promote sustainable energy and support India's decarbonisation goals, BSES Yamuna Power Limited (BYPL), in collaboration with GIZ, has launched the 'Surya Rath'—a comprehensive consumer awareness initiative to accelerate the adoption of rooftop solar (RTS) in Delhi.

Flagged off by Mr. Amarjeet Singh, CEO BYPL, in the presence of representatives from GIZ, EEREM, and Ahasolar, the Surya Rath campaign aims to educate consumers on the financial, environmental, and practical benefits of going solar.

The Surya Rath will travel across residential and commercial areas in East and Central Delhi,

equipped with educational materials such as banners and flyers. The campaign features RWA engagement, outreach in public spaces like malls and metro stations, and door-to-door interactions on topics including installation processes, available incentives, and net metering.

This initiative reflects Delhi's growing commitment to expanding renewable energy, reducing electricity costs, and building a cleaner, more resilient power system.

For more information, contact Mr. Venkatesh Vanga ([venkatesh.vanga\(at\)giz.de](mailto:venkatesh.vanga(at)giz.de)).



GEDA-EV Portal Launch

21st March 2025 | Gandhinagar

We are pleased to announce the successful launch of the GEDA EV Portal for 2 & 3-Wheeler Subsidies across Gujarat, officially inaugurated by Shri Ajay Prakash, IAS, Director-GEDA.

The portal is designed to bring all stakeholders onto a single platform and streamline the disbursement of financial incentives to consumers. This initiative marks a key step in accelerating electric vehicle (EV) adoption and

supporting Gujarat's transition towards a cleaner, greener future.

The project was implemented for GEDA (Gujarat Energy Development Agency) -the state's nodal agency - and developed by AHASolar Technologies Ltd.

For more information, contact Mr. Venkatesh Vanga (venkatesh.vanga(at)giz.de).



GEDA Officially Launches the EV Portal

GEDA
ગુજરાત ઊર્જા વિકાસ એજન્સી
GUJARAT ENERGY DEVELOPMENT AGENCY

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CONVERT YOUR OLD VEHICLES TO ELECTRIC

Gujarat has emerged as a leader in renewable energy, making significant strides in sustainable development. The state has implemented a range of ambitious projects to harness solar, wind, and other renewable resources, positioning itself as a major player in India's transition to green energy. Gujarat's commitment to renewable energy is exemplified by its extensive solar parks and wind farms, which contribute substantially to the state's power grid and reduce reliance on fossil fuels.

Application of EVs since December 2024

APPLY ONLINE

Three-day training program on Smart Grid & Smart Metering for Goa Discom

24 - 26 March 2025 | Electricity Department Training Hall, Ponda, Goa

As part of the Energy Transition with DISCOMs project, a three-day training programme on Smart Grid and Smart Metering was conducted for officials of the Goa Electricity Department from 24 - 26 March 2025. The training brought together over 32 participants, providing comprehensive knowledge on smart grid technologies and metering solutions.

Key topics included:

- ▶ Smart meter communication technologies
- ▶ Smart grids & their role in energy transition

- ▶ Utility business models for smart grids
- ▶ Deployment challenges and best practices
- ▶ Hands-on demonstration of smart meter functionalities

GIZ thanks the Goa Electricity Department for their active participation and Deloitte for their support as consulting partner in delivering this capacity-building initiative.

For more information, contact Mr. Venkatesh Vanga ([venkatesh.vanga\(at\)giz.de](mailto:venkatesh.vanga(at)giz.de)).



Energy Transition with DISCOMs Workshop 2025

27 March 2025 | New Delhi

On 27th March 2025, a knowledge dissemination workshop under the Indo-German Energy Program – Energy Transition with DISCOMs was organised in collaboration with the PHD Chamber of Commerce and Industry (PHDCCI). The workshop brought together policymakers, DISCOM representatives, industry leaders, energy experts, and technology providers to exchange insights and explore innovative solutions for India's evolving energy landscape.

The workshop showcased key findings from technical studies and pilot initiatives conducted by GIZ in partnership with BSES Yamuna Power Limited (BYPL), BSES Rajdhani Power Limited (BRPL), Kerala State Electricity Board Limited (KSEBL), and Gujarat Urja Vikas Nigam Limited (GUVNL). The knowledge dissemination session

provided technical insights into the following focus areas:

- ▶ Demand-side management solutions tailored for Indian DISCOMs
- ▶ Resource adequacy planning and advanced load forecasting methodologies
- ▶ Short Term Load Forecasting using Artificial Intelligence Technology for KSEB.

The workshop underscored the importance of data-driven planning, intelligent forecasting, and flexible demand-side strategies in enhancing operational reliability and preparing utilities for high renewable energy integration. It reinforced the Indo-German partnership's shared vision for building resilient, efficient, and future-ready distribution systems across India.



Closing Workshop with Kerala State Electricity Board Limited (KSEBL) under the “Indo-German Energy Program – Energy Transition with Distribution Companies”

10 March 2025 | Hilton, Thiruvananthapuram

On 10th March 2025, the closing workshop under the Indo-German Energy Program – Energy Transition with DISCOMs was held in collaboration with Kerala State Electricity Board Ltd (KSEBL), marking the culmination of several targeted interventions aimed at accelerating Kerala’s energy transition and digital transformation in power distribution sector. The workshop was supported by the Project Management Unit (PMU), which coordinated pilot implementation and communication efforts on behalf of GIZ in Kerala.

A key highlight of the event was the launch of the executive summary report, presenting consolidated findings and recommendations from the various activities and feasibility studies conducted under the program. The knowledge dissemination session offered technical insights into the following areas:

- ▶ Asset Inspection using Drone Technology
- ▶ Impact of EV and RE – Need Assessment for

Grid Strengthening

- ▶ Short-Term Load Forecasting using AI
- ▶ Long-Term Load Forecasting
- ▶ Substation Automation System Planning at Sub-transmission Distribution Network
- ▶ Community Grid
- ▶ Health Monitoring of Distribution Transformers

These interventions reflect a structured and forward-looking approach to KSEBL’s modernisation efforts—enhancing digital capabilities, predictive asset management, and decentralized energy solutions. The Indo-German collaboration enabled the development of scalable, context-specific strategies to address Kerala’s evolving grid challenges while advancing broader goals of power quality, grid flexibility, and renewable energy readiness.

For more information, contact Mr. Kuldeep Sharma, ([kuldeep.sharma\(at\)giz.de](mailto:kuldeep.sharma(at)giz.de)).



Training & Knowledge Dissemination workshop on Resource Adequacy for Gujarat Urja Vikas Nigam Limited (GUVNL)

10 – 12 March 2025 | GETRI, Gandhinagar

In line with the Ministry of Power's Resource Adequacy Framework, GIZ, in collaboration with the Center for Net-Zero Energy Transition, partnered with Gujarat Urja Vikas Nigam Ltd. (GUVNL) to develop a Long-Term Distribution Resource Adequacy Plan (LT-DRAP) for all its DISCOMs and build internal capacity for conducting such studies independently.

To support this initiative, a three-day workshop was conducted at the Green Energy Transition Research Institute (GETRI) from 10 – 12 March 2025, focusing on resource adequacy and equipping end users with practical skills through hands-on training sessions.

Technical sessions were conducted by DNV, introducing participants to widely used open-

source tools such as #PyPSA (Python for Power System Analysis) for generation expansion planning and #Antares for conducting RA studies—both extensively used across Europe. Officials from SLDC Gujarat, GUVNL, and CNET gained valuable insights and practical experience from the workshop.

The workshop successfully enhanced institutional capacity and strengthened Gujarat's preparedness for long-term resource adequacy planning.

Special thanks to GETRI for hosting and to the DNV team for their insightful sessions.

For more information, contact Mr. Kuldeep Sharma, ([kuldeep.sharma\(at\)giz.de](mailto:kuldeep.sharma(at)giz.de)).



Data driven strategy to enhance the DRE ecosystem and to improve the livelihoods of women in rural areas” at the 4th GOGLA India forum and Expo, South Asia Forum for Distributed Energy- SAFDE

9 April 2025 | New Delhi

As a session partner to GOGLA, GIZ India contributed to the South Asia Forum for Distributed Energy (SAFDE) 2025 under its Solar in Rural Areas (SiRA) programme by organising a session titled “Data-Driven Strategies to Enhance the DRE Ecosystem and Improve Livelihoods of Women in Rural Areas.”

The session explored the vital role of data in strengthening the Decentralised Renewable Energy (DRE) sector. Discussions focused on building an appropriate data repository architecture, identifying gaps in current data collection practices, and ways to improve them. The session also highlighted how data can inform effective implementation strategies and emphasised the importance of addressing

gender-related data gaps to ensure inclusivity in data collection efforts.

In addition to the session, GIZ India also participated in the expo showcasing its commitment to advancing the decentralised renewable energy sector. The expo and event observed active participation from experienced professionals across the government organisation, development sector, financial institutions, technology providers, private companies, and academia.

For more information, contact Mr. Anuj Kumar Xess ([anuj.xess\(at\)giz.de](mailto:anuj.xess(at)giz.de)) and Ms. Ruchi Gupta ([ruchi.gupta\(at\)giz.de](mailto:ruchi.gupta(at)giz.de)).



Beating the Heat: Spotlight on Maharashtra!

4 March 2025 | Mumbai

To reinforce efforts on sustainable cooling, the EE-Cool project, in collaboration with the Bureau of Energy Efficiency (BEE) and Tabreed India, hosted the third Regional Workshop on 'Cooling India's Cities' in Mumbai on 4 March 2025. The workshop addressed the rising demand for cooling in one of India's most heatwave-affected states, where energy-intensive cooling needs are expected to grow by 15-20% annually.

The workshop brought together over 80 stakeholders from government, industry, and academia to discuss:

- ▶ The Potential of District Cooling: Case studies showcased the feasibility of DCS in greenfield and brownfield projects.
- ▶ Policy and Practice Ecosystems: Discussion on regulatory frameworks, challenges, and long-term strategies for sustainable cooling.
- ▶ Collaborative Networks: Strengthening public-private partnerships to scale innovation in cooling infrastructure.

Maharashtra's Heat Action Plans (HAPs) and the Mumbai Climate Action Plan (MCAP) position the state as a leader in energy-efficient, low-carbon cooling solutions, with DCS potentially reducing energy demand by up to 50%.

Ms. Ilka Hirt, Deputy Director General, Directorate International Policy at BMUV, attended the workshop and highlighted the global significance of sustainable cooling:

"The transition to sustainable cooling is not just a national priority but a global imperative. Through the International Climate Initiative, we are committed to supporting India in adopting energy-efficient cooling solutions that align with global climate goals.

For more information, contact Ms. Lena Kliesch, ([lena.kliesch\(at\)giz.de](mailto:lena.kliesch(at)giz.de)).

Workshop Delegation
with District Cooling
Model.



Strengthening State Action for Energy Efficiency

20 - 21 February, 2025 | Vijayawada

The Bureau of Energy Efficiency (BEE)-Indo-German Energy Partnership SDA Summit 2025, organised by GIZ India in collaboration with BEE, was held on 20 - 21 February 2025, in Vijayawada. The program was inaugurated by Shri Milind Deore, Secretary BEE, alongside Shri B. A.V.P Kumara Reddy, CEO Andhra Pradesh State Energy Conservation Mission (APSECM).

The event brought together State Designated Agencies (SDAs), policymakers, and energy experts to advance energy efficiency initiatives across India. Officials from 31 SDAs, BEE, GIZ Experts and consultants from various organisations attended the event. As the key implementing partners of BEE programs on state level, SDAs play a crucial role in advancing India's energy transition goals.

The summit served as a platform for knowledge exchange, collaboration, and discussion on strengthening state-level implementation of energy efficiency measures. Highlights included the launch of the Life Mission Poster and the Star and Labelling programme poster.

GIZ India highlighted the significance of gender in SDAs and industries, featuring videos on

gender sensitisation and the implementation of Industry 4.0 in industries.

Key Discussion Points:

- ▶ Strengthening SDAs' capacity to implement energy efficiency policies and programs
- ▶ Financial and technical support mechanisms for state-level initiatives
- ▶ Best practices and success stories from leading SDAs
- ▶ MSME support through the ADEETIE scheme, enabling small and medium enterprises to adopt energy-efficient technologies
- ▶ Indo-German cooperation for sustainable energy solutions

The summit seeks to promote collaboration and innovation in the energy sector, ultimately supporting India's sustainable development and environmental preservation. GIZ India is dedicated to facilitating this transition through the Indo-German Energy Partnership.

For more information, contact Ms. Priyanka Chandra, (Priyanka.chandra(at)giz.de).

Representatives from
BEE, 31 SDAs, GIZ
Experts & consultants.



4

Quote of the Month from India and Germany

Quote of the Month from India



Shri Pralhad Joshi,
Hon'ble Union Minister for
New and Renewable Energy,
Govt. of India

Source: PIB



"Solar module production capacity has more than doubled—from 39 GW to nearly 91 GW—while solar cell capacity grew from 11 GW to 25 GW, reducing import dependency and boosting self-reliance. Under the Pradhan Mantri Surya Ghar Muft Bijli Yojana, over 16,50,000 households have benefited, with more than 15 lakh rooftop solar installations in the past 12 months alone."

Quote of the Month from Germany



Ms. Katherina Reiche,
Federal Minister for Economic
Affairs and Energy, Govt. of
Germany

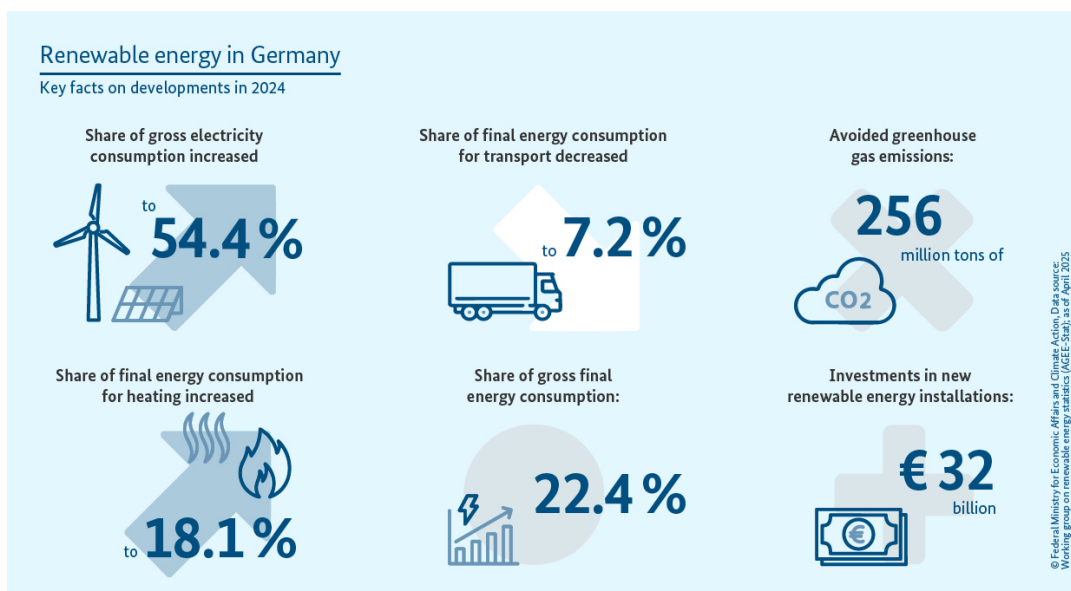
Source: BMWK



"In 2025, we will certainly not yet have all the solutions for a climate-neutral and affordable energy supply. But we already have excellent research, inventive companies, bold start-ups and motivated people everywhere in these fields."

Energy Transition News

Solar power and heat pumps drive growth in renewable energy



The share of renewable energy in Germany's overall energy consumption for electricity, heating and transport continued to rise in 2024.

Renewable energy has now become Germany's primary source of electricity, playing a crucial role in both climate action and energy security. In 2024, the share of renewables in total energy consumption (across electricity, heating and transport) increased to 22.4%, up from 21.6% in 2023.

This was highlighted in the background paper "Renewable energy in Germany 2024: Data on the development in 2024" (in German only), published on 11 March 2025, which also included insights into the economic impact and the avoided emissions from renewable energy use.

Renewables once again meet well over half of domestic electricity demand

The share of renewables in gross electricity consumption rose from 52.9 to 54.4 per cent in 2024. This increase was driven by the installation of new solar systems, with total renewable electricity generation reaching 284

terawatt-hours (TWh). Alongside solar panels, offshore wind farms and hydropower plants also produced more electricity than in the previous year.

Heat pump use for environmental and geothermal heat rises by 15%

The proportion of renewable energy used for heating also saw a slight increase, reaching 18.1% of final energy consumption in 2024. With 197 TWh produced, renewable heat generation

rose by almost 2% compared to 2023. The use of heat pumps grew by 15%, while the amount of heat generated from biomass remained stable.

Mixed results for renewable energy in transport

The share of renewables in final energy consumption for transport dipped slightly to 7.2%. This decline was partly due to a drop in diesel fuel use driven by economic factors, which led to a decrease in biodiesel/HVO sales in the last quarter of 2024. While the growing

number of electric vehicles couldn't entirely offset this decline, the relatively low energy demand of electric vehicles means that even a modest increase in electricity use for transport translates into significantly more 'renewable kilometres travelled'.

Renewables account for 22.4% of gross final energy consumption

Despite still having a high proportion of fossil heating fuels and fossil fuels in overall energy use, the share of renewable energy in gross final

energy consumption is increasing at a steady pace. The share (according to EU directives) rose from 21.6% in 2023 to around 22.4% in 2024.

256 million tonnes of greenhouse gas emissions avoided

By using renewable energy, Germany is reducing its reliance on fossil fuels, which lowers greenhouse gas emissions and air pollutants. In 2024, renewables helped avoid the emission of approximately 256 million tonnes of CO₂

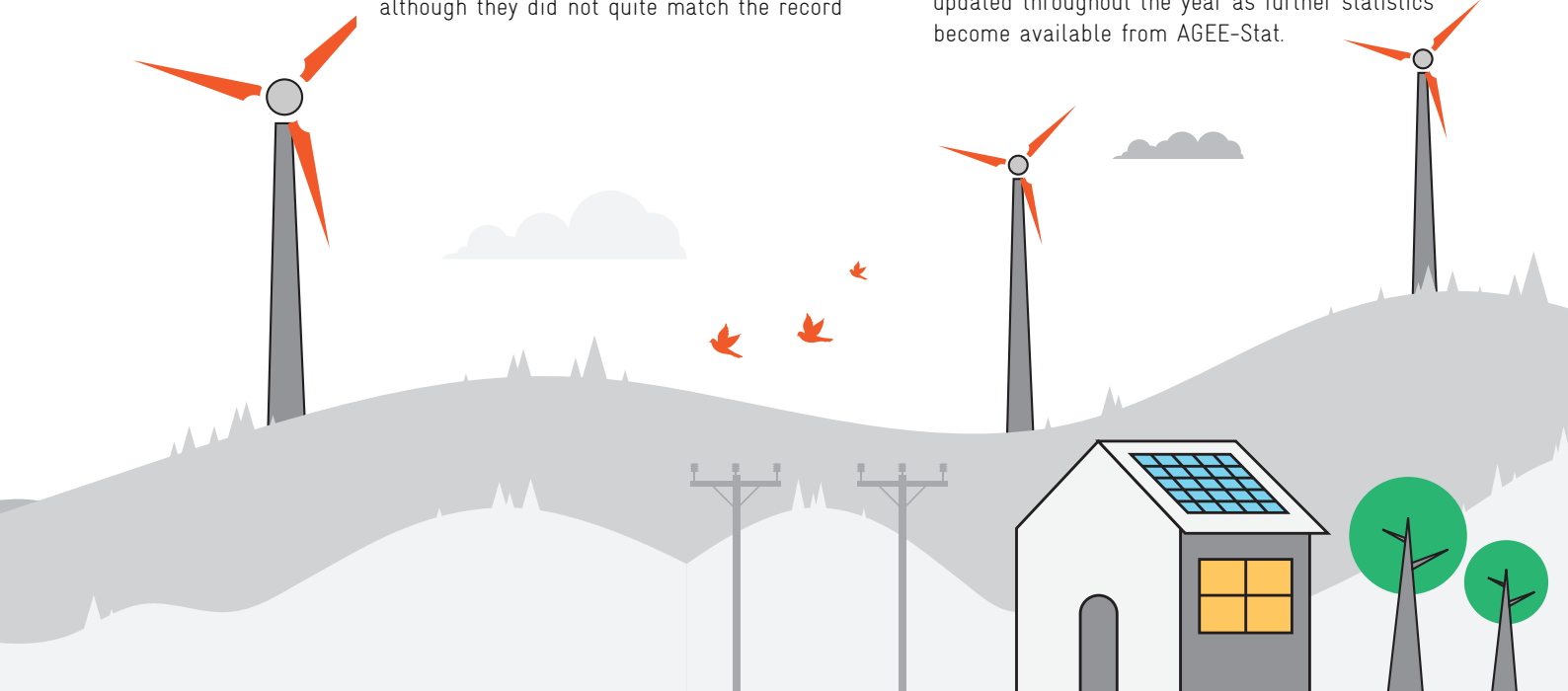
equivalents, around six million tonnes more than the previous year. CO₂ equivalents (CO₂ eq.) are a unit of measurement used to standardise the climate impact of different greenhouse gases: Greenhouse gases (in German only).

32 billion euros invested in renewable energy

Investments in renewable energy reached 32 billion euros in 2024, according to AGEE-Stat, surpassing the values of previous years, although they did not quite match the record

year of 2023.

The data presented is preliminary and will be updated throughout the year as further statistics become available from AGEE-Stat.



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Publications



District Cooling: A Systemic Approach for Maharashtra's Energy Future

Due to rising temperatures and the corresponding surge in air conditioner usage, projections indicate that by 2050, space cooling could be responsible for 45% of peak energy demand in India. Drawing upon GIZ's proficiency in sustainable development strategies, notably its collaboration with BEE on District Cooling guidelines, and Tabreed's unrivalled experience in the industry, the partnership aims to promote widespread adoption of energy-efficient District Cooling systems to deliver on sustainable and holistic economic and human development in India

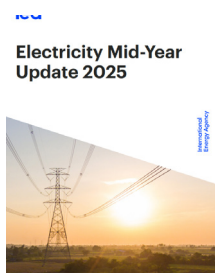
The full report is available for download [here](#).



How can India Meet its Rising Power Demand?

India's electricity demand is growing fast with rapid economic development, urbanisation and climate-induced heat stresses. Since FY21, India's electricity consumption has risen at ~9% per annum, compared to an average of 5% annually in the preceding decade. This study assesses various pathways that India can take to reliably meet the electricity demand in 2030.

The full report is available for download [here](#).



Electricity Mid-Year Update 2025

This mid-year update follows the extensive Electricity 2025 report released in February, examining the latest trends and the outlook for the remainder of the year. It includes updated data for 2024 along with new forecasts for 2025 and 2026 covering areas such as global electricity demand, supply by fuel type, and carbon dioxide (CO₂) emissions from electricity generation.

The full report is available for download [here](#).

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Upcoming Events

IGCC Industry Dialogue

26 August 2025 | New Delhi, India

The IGCC Industry Dialogue 2025 is a premier Indo-German networking forum, bringing together industry leaders, policymakers, and innovators to explore strategic partnerships.



Indo-German Chamber of Commerce
Deutsch-Indische Handelskammer
Mumbai - Delhi - Kolkata - Chennai
Bengaluru - Pune - Düsseldorf

[Find more information here.](#)

Clean Energy Ministerial 16 and the Mission Innovation 10

25 - 27 August | Busan, Korea

On August 25th to 27th 2025, Republic of Korea will host one of the year's largest clean energy events, convening the Clean Energy Ministerial and Mission Innovation communities in Busan.



[Find more information here..](#)

Information about DeveloPPP

DeveloPPP.de is a mechanism by the German Federal Ministry for Economic Cooperation and Development (BMZ) to promote the involvement of the private sector in its development work. The BMZ provides financial and technical support to companies that want to become active in developing and emerging countries or already are, and whose investment has long-term benefits for the local population. The company bears at least half of the total project costs.



Interested companies cooperate with one of the two public partners that implement the program on behalf of the BMZ: DEG - Deutsche Investitions- und Entwicklungsgesellschaft GmbH or Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. The companies receive individual advice, benefit from regional market knowledge of the locations worldwide and gain access to local networks and political decision-makers.

Projects cover a wide range of sectors, such as training local skilled workers, piloting innovative technologies and demonstration plants, securing value chains and improving ecological and social standards in production plants.

Four times a year, companies can submit their project ideas to DEG or GIZ. The project should be developmentally effective and go beyond investments in the company's core business. To be eligible for funding, companies must have an annual turnover of at least 800,000 EUR, employ no less than 8 people and have a minimum of 2 audited annual financial statements. The duration is up to 3 years.

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

Information about H2Uppp

The H2-Uppp programme accompanies and supports efforts to ramp up the market for green hydrogen (H2) and power to X (PtX) applications in India and other selected developing countries and emerging economies in cooperation with the private sector. Unlike other hydrogen support initiatives, H2-Uppp focuses on the early stages of green hydrogen project development.

H2Uppp International Hydrogen Ramp-up Program

H2-Uppp aims to identify, prepare and accompany the implementation of projects for the production and use of green hydrogen and power-to-X application, and to raise awareness and promote knowledge transfer for the development of projects relating to green hydrogen. Together with the partner countries, this approach enables GIZ to identify cost-effective production paths and uses, pinpoint project opportunities along the value chain and develop business models.

To achieve the programme objectives, H2-Uppp focuses on three fields of action: In field of action 1 (Networking & Project Scouting), H2-Uppp supports companies in identifying project ideas and building networks, for example with project partners or potential off-takers. Partners from the private and financial sectors are also offered training on green hydrogen, and public-private dialogue is strengthened through conferences and trade fairs. In field of action 2 (PPP – Public-Private Partnerships), H2-Uppp works with private companies to jointly implement pilot projects in the field of green hydrogen and power-to-X. Formal public-private-partnerships (PPPs) are set up for this purpose (see following section). In field of action 3 (Know-How and Capacity Development), H2-Uppp accompanies the various project ideas with in-depth studies and technical trainings. Through specialist conferences, the activities of local institutions are further strengthened and joint measures are developed to ensure a successful market launch.

The programme has been commissioned by the German Federal Ministry for Economic Affairs and Climate Action (BMWK). Support is provided for PPPs along the entire hydrogen value chain (production, storage, conversion, transportation and usage). It is important that the PPP project focuses on public-benefit activities and contributes to the promotion of sustainable development in the project country. To be eligible for funding, companies must contribute at least 50% of the volume of the PPP project and comply with sustainability standards during the project.

For further information on H2-Uppp, on support opportunities or to receive the PPP application form, please contact [H2Uppp\(at\)giz.de](mailto:H2Uppp(at)giz.de).

All Upcoming Events in the Next Six Months – Save the Date!

BNEF Conference New Delhi

22 August 2025 | New Delhi, India

[Read more](#)

5th International Conference on Electrolysis 2025

25 – 29 August 2025 | Freiburg im Breisgau, Germany

[Read more](#)

4th Edition of GH2 India

28 – 30 August 2025 | New Delhi, India

[Read more](#)

International Climate Summit 2025 on Leading the Bioenergy Revolution

29 August 2025 | New Delhi, India

[Read more](#)

Hy Summit Rhein-Ruhr

1 – 2 September | Duisburg & Bochum, Germany

[Read more](#)

POWERGEN India & Indian Utility Week 2025

2 – 4 September | New Delhi, India

[Read more](#)

Power to X Basic Training

2 – 4 September | New Delhi, India

[Read more](#)

India SAF Conclave and Awards 2025 (e-SAF Roundtable)

15 September | New Delhi, India

[Read more](#)

Power to X Green Shipping Training

16 – 18 September 2025 | India

European Hydrogen Week

29 September – 03 October 2025 | Brussels, Belgium

[Read more](#)

World Hydrogen Week

06 October – 10 October 2025 | Copenhagen, Denmark

[Read more](#)

Windergy India 2025

29 October – 31 October 2025 | Chennai, India

[Read more](#)

Renewable Energy India Expo

30 October – 1 November 2025 | Greater Noida, India

[Read more](#)

3rd International Conference on Green Hydrogen (ICGH)

06 – 07 November 2025 | India

[Read more](#)

Study tour to Germany on Flexible Operation of Thermal Power Stations

02 – 09 November 2025 | Germany

7th Best Practices Training cum Study Tour and International Workshop on Battery Storage for Grid Stability & Renewable Integration

12 – 14 November 2025 | Chattisgarh, India

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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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