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Government of Gujarat

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MINISTRY OF NEW AND RENEWABLE ENERGY GOVERNMENT OF INDIA

In partnership with

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CII
Confederation of Indian Industry

RE INVEST 2024
Invest | Innovate | Inspire

4th Global RE-INVEST 2024

16-18 September 2024

Mahatma Mandir, Gandhinagar, Gujarat

Day 1, 16th September 2024	
1000 - 1145 hrs	**Inaugural: Hon'ble Prime Minister of India**
Plenary Session 1 1200 to 13.30 hrs	**Chief Ministerial Plenary** This session aims to create a dynamic platform for states to showcase their strengths, engage in healthy competition, and foster collaboration. By highlighting state-specific benefits, policies, and innovative financing mechanisms, this session will drive investment in India's renewable energy sector. It also aims to facilitate discussions on global standards, technological integration, and infrastructure development, contributing to a sustainable energy future. **Key Discussion Points** • Economic and environmental benefits of renewable energy investment in each state. • Innovative Financing Mechanisms and Financial Products for Renewable Energy Projects. • Aligning state policies with international standards and regulations. • Opportunities for Public-Private Partnerships in the Renewable Energy Sector. • Best practices and success stories from different states. • Challenges and solutions for seamless integration of renewable energy into existing grids. • Role of international collaboration in advancing renewable energy initiatives. **Session moderated** by Mr Chandrajit Banerjee, Director General of the Confederation of Indian Industry (CII) **Opening Remarks by:** Mr Bhupinder Singh Bhalla, Secretary, Ministry of New & Renewable Energy

	Welcome Address by: Mr Pralhad Venkatesh Joshi, Hon'ble Union Minister of New & Renewable Energy and Consumers Affairs, Food and Public Distribution **Special Remarks** by Chief Ministers, moderated by Director General, Confederation of Indian Industry **Gujarat:** Mr Kanubhai Desai, Hon'ble Cabinet Minister, Energy and Petrochemicals Department, Gujarat **Telangana:** Mr Mallu Bhatti Vikramarka, Hon'ble Deputy CM of Telangana* **Andhra Pradesh:** Mr Nara Chandrababu Naidu, Hon'ble CM of Andhra Pradesh **Chhattisgarh:** Mr Vishnu Deo Sai, Hon'ble CM of Chhattisgarh **Goa:** Mr Pramod Sawant, Hon'ble CM of Goa **Madhya Pradesh:** Dr Mohan Yadav, Hon'ble CM of Madhya Pradesh **Rajasthan:** Mr Bhajan Lal Sharma, Hon'ble CM of Rajasthan **Concluding Remarks:** Director General, Confederation of Indian Industry
13.00 hrs -14.00 hrs	**Closed Door Australian Roundtable**
14.00 hrs - 15.15 hrs	**<u>Parallel Sessions – A</u>**
Parallel Session A (1)	**Scaling up India's Green Investments and Financing: Role of MDBs** Trillions of dollars of investment are required annually in emerging markets and developing countries to make adequate progress towards climate goals, to manage the risks of climate change, and to be on the path to meeting Sustainable Development Goals (SDGs) by 2030. The scale of this challenge requires that Multilateral Development Banks (MDBs) take a significant role in leading mobilisation of private finance beyond the traditional MDB roles of sovereign backed lending and also increase investment from private sector development financing arms. In recent years, MDBs have substantially increased their climate finance investments, recording an increase in the annual average from USD 57 billion in 2017-2018 to USD 93 billion in 2021- 2022. Yet, to meet the goals of the Paris Agreement, an unprecedented surge in climate finance is needed, with an annual increase of at least 590%. India's G20 Presidency commissioned a special initiative on Strengthening MDBs, which led to The Triple Agenda, a

	comprehensive report by an Independent Expert Group (IEG). It recommends a triple agenda to harness the potential of MDBs: (i) adopting a triple mandate of eliminating extreme poverty, boosting shared prosperity and contributing to global public goods; (ii) tripling sustainable lending levels by 2030; and (iii) creating a third funding mechanism which would permit flexible and innovative arrangements for purposefully engaging with investors who are willing to support elements of the MDB agenda. Specifically, the report calls for a tripling in the annual level of MDB finance by 2030, meaning $300 billion a year in regular lending and USD 90 billion a year in grants and loans at concessional rates. Additionally, the IEG report stresses the importance of concessional finance. **Key Discussion Points** 1. To discuss strategies and interventions MDBs can employ to promote and facilitate urban green climate investments in India. 2. To identify methods through which MDBs can help lower the cost of private foreign capital inflows into India. 3. To formulate solutions for bridging market realities and information gaps that hinder private capital investment in emerging markets. 4. To explore scalable approaches, including local-currency lending and foreign exchange hedging solutions **Panellists** 1. Mr Baldeo Purushartha, Joint Secretary, ISD Division, Department of Economic Affairs 2. Mr Christine Toetzke, Director General, German Federal Ministry for Economic Cooperation and Development, The World Bank 3. Ms Zia Nariman, Senior Investment Officer, Climate Business Lead for Asia Infrastructure, IFC 4. Mr Eiji Wakamatsu, Senior Representative, JICA 5. Mr. Moez Cherif, Lead Energy Specialist, World Bank 6. Mr. Rajeev Topno, IAS, Chief Commissioner of State Tax, Ahmedabad **Moderator:** Mr Anish De, Global Head for Energy, Natural Resources and Chemicals (ENRC)
Parallel Session A (2)	**Emerging Opportunities in Clean Energy Supply Chains** India stands 4th globally in Renewable Energy Installed Capacity (including Large Hydro), 4th in Wind Power capacity and 5th in Solar Power capacity (as per REN21 Renewables 2024 Global Status Report).

	India has been making efforts to increase manufacturing in renewable energy. For many countries where manufacturing may be expensive or not possible, India has the potential to be an alternative source of clean energy products. The Indian government has taken a series of measures to support domestic manufacturing, both from the supply and demand sides. For instance, the government has a Production-Linked Incentive Scheme for solar and battery technologies. India can feed into global clean energy supply chain which is highly concentrated in a few countries. Beyond this, the machinery utilised in manufacturing processes is also imported. This dependency creates barriers to upkeep and finetuning of the machinery, leading to a bottleneck in capacity addition efforts across the supply chain. Such high concentration poses challenges of potential disruption impacting the pace of the global energy transition. Countries are now looking to secure their energy transition by building domestic manufacturing capacity across value chains. **Key discussion points** • Developing the wholistic RE manufacturing ecosystem in India • Indigenisation of components by incentivising Micro, Small and Medium Enterprises for manufacturing ancillary machinery and equipment • Financing models for domestic manufacturing • Policy interventions, including role of state government, in supporting manufacturing • Importance of R&D in strengthening manufacturing in India and making the components export friendly • Building competitiveness in manufacturing to tap global diversification • Role of industries, like polymer, glass, steel, mining, etc in supporting the RE industry • Creating capabilities for induction of new technologies in manufacturing **Panellists** 1. Mr Dinesh Dayanand Jagdale, Joint Secretary, Ministry of New & Renewable Energy 2. Dr Amit Paithankar, CEO, Waaree Energies 3. Mr Pradeep Kheruka, Promoter & Chairman, Borosil Group of Companies 4. Mr Girish Tanti, Co-Chairman, CII National Committee on Renewable Energy and Co-Founder & Vice Chairman, Suzlon Energy Limited 5. Mr Sujoy Ghosh, Vice-President and Country MD-India, First Solar

	6. Mr David Wedepohl, Managing Director, International Affairs at BSW Solar & BSW gGmbH 7. Mr Siddharth Gupta, Chief Executive Officer, L&T Electrolysers Ltd **Moderator:** Mr Rishabh Jain, Senior Programme Lead, CEEW
Parallel Session A (3)	**Accelerating Capital for India's Energy Transition: Spotlight on Instruments** To meet India's, need for capital to achieve its 500 GW of RE capacity and other supporting infrastructure like transmission lines by 2030 and become net-zero by 2070, both domestic as well as international sources of capital needs to be leveraged. Various innovative instruments like green and ESG bonds, InvITs, hybrid products etc are required. Equally important is to have ways to facilitate recycling of capital. The panel will discuss the state of play with respect to capital flows for India's energy transition, and deep dive into instruments that can further accelerate these flows. **Key discussion points** • Given where India is in its energy transition, a look beyond only cost to also include scale of requirements as a distinct financing challenge in itself • Current landscape of ESG bonds in India • Structure and functionality of country financial platforms • Risk mitigation and investor confidence • Policy and regulatory support **Panellists** 1. Mr Monu Ratra, CEO, IIFL Home Finance Ltd 2. Dr Supot Teachavorasinskun, Chairman of the Board, Global Power Synergy (Public) Company (GPSC) 3. Mr Jan-Philipp Gillmann, Regional Head Deutsche Bank (Germany) 4. Mr Pradeep Ramakrishnan, Executive Director, Department of Capital Markets, IFSCA 5. Mr Nawal Saini, MD Renewable Power and Transition, Brookfield 6. Mr Ashok Kumar Sharma, DMD & CCO and Chief Sustainability Officer, SBI 7. Mr Sumant Sinha, CMD, ReNew **Moderator**: Mr Pradeep Tharakan, Asian Development Bank
Parallel Session A (4)	**Partner Country Session: Germany**

Launch of India - Germany Platform for Investments in Renewable Energies Worldwide

Using the momentum of Government of India's flagship renewable energy event RE-INVEST 2024, the Governments of India and Germany will jointly launch and institutionalize the "India-Germany Platform for investments in Renewable Energies Worldwide". The platform will be established under the Indo-German "Green and Sustainable Development Partnership (GSDP)", to significantly accelerate investments in renewable energy in a joint effort. The platform is being hosted jointly by India and Germany and will develop concrete and sustainable solutions for the accelerated expansion of renewable energy in India and worldwide. It will provide business opportunities, create new avenues for meeting the increasing demand for capital, support technology transfer and enhance the development of innovative technical solutions. It will bring together international stakeholders from across the globe, including the private sector (both financial sector and industry), international organizations, development banks and bilateral partners to develop solutions to proactively support India in attaining the goal of 500 GW of non-fossil energy capacity by 2030 and to scale-up renewable energy capacities worldwide following the COP28 decision to triple renewable capacities until 2030.

Key Discussion Points

- Future industries: Climate Change and Global agreements (Paris agreement, NDCs, COP goals) demand emerging technologies and open new avenues for industry cooperation
- Global markets and value chains: The pandemic and geopolitical crisis have proven the vulnerability of value chains and need for diversification
- Role of multilateral and development cooperation: Global challenges require global acting – global public goods and leave no one behind.

1400 - 1405 hrs Welcome Address by Moderator
Mr Stefan Halusa Director General Indo-German Chamber of Commerce

1405 - 1415 hrs Address by Ms Svenja Schulze Federal Minister for Economic Cooperation and Development (BMZ) Germany

1415 - 1425 hrs Address by Mr Prahlad Joshi Minister for New and Renewable Energy (MNRE) Government of India

1425 - 1430 hrs Showcasing the India-Germany Platform for Investments in Renewable Energy Worldwide through a short Doodle Video (~60 sec), followed by lantern lighted by both

	ministers and a short video (~30 sec) that presents organisations instrumental in establishing the platform Listening to the renewable energy sector - Future endeavours for Indo-German cooperation – how to deepen the ties in the renewable energy sector towards a sustainable future? 1430 - 1500 hrs • **Mr Claudius da Costa Gomez** – Director General German Renewable Energy Federation (BEE) • **Mr Ajay Mathur** - DG International Solar Alliance (ISA) • **Ms Vaishali Sinha** – Co-Founder ReNew Signing of deliverables and partnerships 1500 - 1515 hrs • Memorandum of Understanding between German Offshore Wind Energy Foundation and Indian Offshore Wind Energy Group (GWEC) • Memorandum of Understanding between Bundesverband für Windenergie (BWE) und Wind Independent Power Producer Association (WIPPA)
Parallel Session A (5)	**Partner State Session – Andhra Pradesh** The Sunrise state of Andhra Pradesh (AP) is one of the fastest growing states in India. The State's Renewable Energy Growth Story, so far, is unique and one-of-its kind, that strikes a balance between both Solar and Wind Energy Generation Sources harnessing their potential. As the state enters a new phase of accelerated growth, entire spectrum of renewable energy generation sources and their applications will fuel its trajectory and contribute to realising India's ambitious Renewable Energy Targets. Apart from Solar and Wind Generation, the state of Andhra Pradesh has ambitious goals to become one of the leading states in Green Hydrogen Production, Pumped Storage Capacity as well as Decentralized Solar energy applications along with Manufacturing. Blessed with natural resources along with high potential for Solar and Wind, coupled with a conducive, pro-investor ecosystem, the state of Andhra is poised to be one of the front runners of India's Energy transition success story. This plenary session aims to showcase the

	growth journey of AP while emphasizing on the opportunities for investments in emerging sectors of Renewable energy in the state. 14:00-14:05 Welcome Remarks Mr Gottipati Ravi Kumar, Minister of Energy, Government of Andhra Pradesh 14:05-14:35 Chair Remarks: Sunrise State of Andhra Pradesh- Opportunities for Renewable Energy Investments Mr Nara Chandra Babu Naidu Garu, Honourable Chief Minister, Government of Andhra Pradesh 14:35-15:00 Panel Discussion: Andhra Pradesh as Integrated Clean Energy Hub – Opportunity for Investors Moderator: Mr Subrahmanyam, CEO, National Solar Energy Federation of India Panellists: • Mr Jörg Ebel, IBC Solar, Germany and President, German Solar Association • Mr RK Tyagi, CMD, PowerGrid • Mr Suman Kumar, CEO EVREN Brookfield Group • Mr Tripathi, Advisor, Greenko (Former CMD of GAIL) • Mr Sagar Adani, CEO/Director, Adani Green Energy • Mr J P Chalasani, CEO, Suzlon
16.00 hrs to 17.15 hrs	**Parallel Sessions – B**

Parallel Session B (1)	**Green Hydrogen for Decarbonization: Investment and Opportunities** The green hydrogen industry is recognised as a USD 125 billion decarbonisation opportunity. Furthermore, to realise our national green hydrogen mission goal of 5 MMT in 2030, newer avenues of demand centers should be created in addition to existing ones like refineries and fertiliser industry. Given the efficacy and capability of hydrogen as a fuel, hard-to-abate industries like steel manufacturing and shipping industry can benefit from abating carbon emissions through adoption. The sessions aims to discuss and delineate application of hydrogen in steel making and shipping industry. Likely investment options available and policy as enabling mechanism. **Key Discussion Points** • Provide context on hydrogen application in steel making and shipping industry • Opportunities and current prospects on hydrogen use • Existing challenges and investments required to adopt at scale • How can industry benefit from NGHM and possible bottlenecks? • Policy instruments necessary to maximise adoption **Panellists** 1. Mr Ajay Yadav, Joint Secretary, Ministry of New & Renewable Energy 2. Dr Umish Srivastava, Executive Director, Indian Oil Corporation Limited 3. Mr Saurabh Kundu, Chief Corporate Sustainability, Tata Steel 4. Mr Mudit Narain, Vice-President, Blume Ventures 5. Mr Gautam Reddy Kumbam, Chief Operating Officer, AM Green Ammonia **Moderator:** Mr Prateek Jhawar, Managing Director & Head – Infrastructure & Real Assets, Avendus
Parallel Session B (2)	**Scaling up of Onshore Wind Energy for Meeting India's Ambitious Energy Transition Targets** India is racing towards 500 GW of clean power capacity by 2030. Onshore wind, with a huge potential of more than 1100 GW, is one of its two mainstays to meet this milestone. The sector has seen a continued and steady growth. From 9 GW in 2008 to nearly 47 GW today, India ranks fourth globally in total wind installations. By 2030, the target is to reach 100 GW.

	The sector will continue to play a crucial role in India's economic and energy transition journey. Scaling up investment to meet India's envisaged growth in wind and wind-hybrid-storage-green hydrogen projects calls for reducing the cost of capital, mitigating risk, increasing bankability of PPAs, easing investor entry and exit through asset sales, mergers and acquisitions, using innovative financing, aligning financial reporting and compliance to applicable international green financing standards, and ensuring appropriate fiscal and power policy incentives can help attract more capital. This session will highlight the attractiveness of India as an investment destination featuring Government, investor and developer interactions to chart the way forward in catalysing finance to power India's planned wind energy rollout. **Key Discussion Points** • Current targets, future vision and importance of the sector • Investment potential / current financing quantum, growing needs • Opportunities for accelerated growth • Current financing, growing needs and the investment potential • Strengthening the bankability of PPAs • Catalysing Investment • Compliance for reporting standards for green and sustainable financing **Keynote Address:** Mr Gaurav Gupta, Additional Chief Secretary, Energy Department, Government of Karnataka **Panellists** 1. Mr Ralf Hendricks, Vice President, German Wind Energy Association 2. Mr A Nithyanand, Managing Director and CEO, Sembcorp Renewables India 3. Mr RPV Prasad, MD, India Region, Envision Energy India 4. Mr Vivek Srivastava, CEO, Suzlon Group 5. Mr Devansh Jain, Executive Director, INOXGFL Group **Moderator:** Mr Parag Sharma, Vice Chairman, CII National Committee on Renewable Energy and Founder & Chief Executive Officer, O2 Power and President, WIPPA
Parallel Session B (3)	**Green Energy Start-ups in India: Innovation and Indigenization**

To drive momentum and facilitate the scaling of start-ups in the solar energy sector, this session will foster strategic matchmaking between emerging solar enterprises and key financial stakeholders. The session aims to create valuable connections that can propel the growth of the global solar industry through targeted partnerships and investments.

The International Solar Alliance ran a Solar X Challenge with the aim of capacity building. It was open for participation for all startups, entrepreneurs, innovators in the solar sector. From the submissions, 10 promising startups will be selected. These start-ups will have the opportunity to present their business ideas and ventures in front of investors and venture capitalists. Each start-up will be given a 3-minute slot to pitch their business models, innovative solutions, and growth potential.

Following these pitches, investors and venture capitalists will have the chance to engage directly with the start-ups, exploring their ideas further, discussing potential collaborations, and assessing investment opportunities.

Welcome Note by Dr Ajay Mathur, Director General, ISA
Opening Remarks by Mr Bhupinder Singh Bhalla, Secretary, Ministry of New & Renewable Energy
Keynote address by Mr Shripad Yesso Naik, Hon'ble Minister of State
(New & Renewable Energy)

30 Minutes of Pitches by Solar X Challenge winners
30 Minutes for Q&A by Investors

Moderator: Mr Sandeep Goel, MD, Moglix

List of Start Ups
AgriVijay (Renewagri Om Ecommerce Pvt Ltd)
CIBOS Techno Solutions Private Limited
Imagine Powertree Private Limited
Thermoniks Energy Pvt Ltd.
Greenleap Robotics Pvt Ltd.
ClimAI Cleantech Pvt Ltd.
SolarfiX
RGET LABS LLP
Evoride Motors Private Limited
Envinova Smartech Private Limited

Parallel Session B (4)	**Partner Country Session: Denmark**

Accelerating India's Energy transition: RE and green fuel economy through the India-Denmark Green Strategic Partnership

India is rapidly advancing towards its ambitious target of 500 GW of clean energy by 2030. In this pivotal session, energy and business ministers, business leaders, and policymakers from India and Denmark will focus on the framework conditions for India's energy transition.

Marking 75 years of diplomatic relations between India, and Denmark and the strong Green Strategic Partnership, the session will delve into joint effort to accelerate India's Energy Transition. Combining Denmark's more than 50 years of energy transition with India's high RE ambitions, this session will delve into concrete steps in light of India's green fuel economy, seen in its entire value chain.

The discussion will highlight long-term energy strategies, the integration of renewable energy, production of green hydrogen as well as its derivatives for the hard to abate sectors. The event will culminate with a call for 40 million DKK (around 500 million INR) bilateral green fuel economy innovation projects.

OPENING

16.00 - 16.05: **Opening Remarks by Mr Morten Bødskov, Hon'ble Danish Minister for Industry, Business and Financial Affairs**

"50 Years of experience of ET and the Green Strategic Partnership"

16.05 - 16.10: **Special Address by: Mr Pralhad Venkatesh Joshi, Hon'ble Minister for New and Renewable Energy, Government of India**

SETTING THE SCENE

16.15 - 16.20: **Moderator**: Danish Consul General, Eske Bo Rosenberg Introduction and Wind India Alliance & Green Fuel Alliance India

16.20 - 16.28: Keynote by: **Mr Lalit Bohra, Joint Secretary, MNRE:**

"India's high RE ambitions and transition paths"

16.28 - 16.35: Highlights of INDEP: **Mr Ulrik Eversbusch, Director - Danish Energy Agency, Global Cooperation. Denmark**

	"The India Danish Energy Partnership, INDEP – accelerating the Energy Transition in India through Offshore Wind, Long Term Energy Planning and Integration of RE" 16.35 - 17.10: **Panel Discussion: Insights from the Industry Experts** 1. Mr Claus Løcke – Vestas - Managing Director VTCC & Head of Global Power Plant Solutions - 2. Mr Alok Verma – Topsoe - Managing Director – Asia Pacific - 3. Mr Nazeer Syed – Danfoss - Director - Strategic Business Development APAC 4. Mr Sandeep Sander – +Bioenergy – CEO +Bioenergy and Strategy & Action Advisor for Novonesis 5. Ms Mette Mellemgaard Jakobsen – Maersk - Global Vice President and Head of Tax, Maersk – NA 17.10 - 17.15: **Summing-Up and joint call for innovation projects** Call for 40 million DKK innovation projects "Joint Bilateral Call: Be part an active part of the journey creating the new green fuel economy! (Deadline:1 November 2024)
Parallel Session B (5)	**Partner State Session- Uttar Pradesh** 16.00-16.10 Welcome address UPNEDA 16.10-16.15 Film on Renewable Energy in Uttar Pradesh 16.15-16.30 Renewable Energy Policies and available Incentives in State of U.P Mr Anupam Shukla Director UPNEDA & Special Secretary Energy, Govt of U.P 16.30-16.40 Avaada Investment in U.P Mr T.R Kishore Nair CEO Avaada 16.40-16.50

	CBG Investment in U.P Mr Anil Dubey Senior Team Lead Reliance Bio Energy Ltd 16.50-17.05 Question & Answer 17.05-17.10 Vote of Thanks Mr Pankaj Singh Secretary cum CPO
Plenary Session 2 1715 to 1830 hrs	**Decarbonizing Hard to Abate Sectors: Shipping and Aviation** Decarbonizing the shipping and aviation sectors is challenging due to their high energy demands and global scope, but essential for meeting climate goals. Key strategies include the development of green corridors in shipping, where sustainable practices can be tested and scaled, positioning India as a leader in maritime decarbonization. In aviation, Sustainable Aviation Fuels (SAFs) offer significant carbon reductions, with potential for India to become a production hub. Success in these sectors will require strong policies, international collaboration, and investment in innovative technologies and alternative fuels. Through these efforts, India can play a pivotal role in global decarbonization. **Key Discussion Points** • Challenges in Decarbonizing Shipping and Aviation • Green Corridors in Shipping • Sustainable Aviation Fuels (SAFs) • Innovative Technologies and Alternative Fuels • Policy and Regulatory Frameworks • Investment and Financing • Global Collaboration • Roadmap for India's Leadership **Speakers** 1. Mr Rahul Munjal, Chairman and Managing Director, Hero Future Energies 2. Mr Sajay KV, CEO, Zelestra 3. Mr Alok Verma Managing Director Asia Pacific, Topsoe 4. Ms Mette Mellemgaard Jakobsen, Vice President and Head of Tax, Maersk.

19.30 hrs onwards	**Cultural Programme (Followed by Dinner)**
Day 2, 17th September 2024	
Plenary Session 3 0915 to 1030 hrs (Convention Hall)	**State Energy Ministers Session** In this Plenary Session, State Energy Ministers will come together to address the pressing investment needs and challenges in India's pursuit of a sustainable, low-carbon economy by 2070. The session will outline the critical investment needs and challenges while highlighting the necessity of implementing effective financing mechanisms to drive the transition. The plenary session aims to explore strategies to accelerate India's energy transition, including boosting renewable energy adoption, electrifying transportation, enhancing energy efficiency, leveraging digital technologies, promoting circular economy principles, securing adequate financing, and addressing regional disparities. Through fostering regional cooperation and sharing effective strategies, India can set a global benchmark for successful energy transitions. India is 4th globally in Renewable Energy Installed Capacity, 4th in Wind Power capacity and 5th in Solar Power capacity. India's rapid development, coupled with a growing population, has created a significant energy challenge. While the nation's energy landscape is currently dominated by fossil fuels, primarily coal, the associated air pollution, environmental degradation, and energy security concerns have spurred a critical shift towards a cleaner energy future. To address this challenge, India has embarked on an ambitious energy transition, aiming to increase the share of renewable energy sources in its energy mix. Despite challenges such as ensuring energy access, developing necessary infrastructure, securing adequate financing, advancing clean energy technologies, and creating supportive policies, India has made substantial progress and witnessed rapid growth in renewable energy installations. **Key Discussion Points** • Economic Benefits of Energy Transition: Analysis of the long-term cost benefits versus the initial investment requirements • Equity and Affordability: Strategies for ensuring that energy transition benefits are accessible to all demographics • Role of green banks and carbon markets • Policy and Regulatory Framework: Effective policy designs and regulatory measures to support a smooth transition

	• Global and Local Collaborative Efforts: The role of international organizations, governments, and private sectors in facilitating the transition **Ministers** 1. Mr R. M. Dhavalikar, Hon'ble Minister for New & Renewable Energy, Government of Goa 2. Mr Rakesh Shukla, NRED Energy Minister, Government of Madhya Pradesh 3. Mr Subodh Uniyal, Hon'ble Minister of Forest, Government of Uttarakhand
10.30 to 11.00 hrs	**RE-INNOVATE** RE-INNOVATE is a special 30-min session focused on renewing the planet through new ideas and green technologies. **Speaker** Mr Tarun Kapoor, Advisor to PM, Government of India
11.00 to 12.15 hrs	**Parallel Sessions – C**
Parallel Session C (1)	**Green Investment Pathways for Industry 4.0** Industry 4.0, also known as the Fourth Industrial Revolution, represents the convergence of digital and physical technologies, revolutionising how industries operate. It encompasses advancements such as the Internet of Things (IoT), artificial intelligence (AI), robotics, big data, and cloud computing. These technologies are transforming manufacturing and industrial processes, enabling greater efficiency, flexibility, and connectivity. Simultaneously, the urgent need to address climate change has placed decarbonization at the forefront of global agendas. The session will explore synergies between Industry 4.0 and decarbonization pathways, highlighting the potential for technological advancements to accelerate the transition to a low-carbon economy. **Key Discussion Points** • IoT and Smart Manufacturing: IoT-enabled devices and sensors provide real-time data on energy consumption, enabling companies to optimize processes, reduce waste, and improve energy efficiency. Smart manufacturing systems can also integrate renewable energy sources, enhancing sustainability. • Artificial Intelligence and Machine Learning: AI and machine learning algorithms can optimize production processes,

	predictive maintenance, and supply chain logistics. These technologies help minimize energy use, reduce material waste, and optimize resource allocation, leading to lower carbon footprints. • Automation and Robotics: Automation and robotics enhance precision and efficiency in manufacturing, reducing errors and material waste. By streamlining operations, these technologies contribute to energy savings and emission reductions. • Digital Twin Technology: Digital twins, virtual replicas of physical systems, enable real-time monitoring and analysis. • Energy Efficiency: Industry 4.0 technologies enable the optimization of energy use in industrial processes. Smart grids, AI-driven demand response systems, and energy management platforms help industries monitor and manage energy consumption more effectively. • Green Hydrogen: Industry 4.0 technologies can support the scale-up of the green hydrogen ecosystem by enabling the smart manufacturing of electrolysers, optimising plant-load factors with the use of predictive analysis, blockchain and AI in electrolysers and RE systems constructing digital twins of end-use industries to model green hydrogen injection and smart grid integration. **Panellists** 1. Mr Rajiv Mangal, Vice President, Safety, Health and Sustainability, Tata Steel 2. Christian Gondek, Head of Digitalisation, Decarbonisation Technologies, Thyssenkrupp 3. Mr Manoj Kaushik, Executive Director, SMBC 4. Mr Akilur Rahman, CTO, Hitachi Energy India 5. Mr Rohit Pathak, CEO Copper Business, Hindalco Industries **Moderator**: Mr Kartik Ganesan, Director, CEEW
Parallel Session C (2)	**Mainstreaming Offshore Wind in India** With the growing demand for renewable energy, offshore wind (OSW) energy is identified as one of the major potential contributors to meeting India's net zero target of 2070. Worldwide, the OSW industry is booming. This entails OSW ambitions of countries in the APAC region as well. As per the Global Offshore Wind Report 2024, globally, 75.2 GW of offshore wind capacity stands commissioned by the end of 2023 and 410 GW of new OSW capacity is likely to come up between 2024-2033. The Ministry of New and Renewable Energy (MNRE), along with the National Institute of Wind Energy (NIWE), has formulated a detailed strategy to promote offshore wind projects. This strategy includes a tentative tender trajectory for 37 GW of offshore wind capacity by 2030 off the coasts of Gujarat and Tamil Nadu. To support this

	endeavour, the Government of India has recently approved a viability gap funding (VGF) scheme worth Rs 7,453 crore ($890 million) to promote offshore wind energy projects. This scheme marks a crucial step towards harnessing the immense potential of OSW in India. The RE-INVEST is likely to facilitate the forging of synergistic partnerships for the scale-up of existing infrastructure, including the upgradation of ports for OSW development in India. It is envisaged that the convening shall help build further enthusiasm around the 4 GW seabed lease off the coast of Tamil Nadu tender earlier notified by the Solar Energy Corporation of India (SECI) and allow potential investors and developers to further their interest in emerging opportunities in the area of OSW in India. The key objective is to build consensus and facilitate the identification of priorities and interventions that may bring the necessary fillip to India's OSW strides. **Key Discussion Points** • Government of India's prioritization of offshore wind in its ambitions for net zero, energy security and energy transition • Role of government and the private sector in market creation, including - experiences from other countries • Pivotal role of port infrastructure for offshore wind • Strategies for cost reduction (global cost trends/tariffs/innovations in bidding/supply chain development) • Financing offshore projects, offshore wind power infrastructure and port infrastructure **Panellists** 1. Mr Lalit Bohra, Joint Secretary (Wind), Ministry of New & Renewable Energy 2. Mr Sean Whittaker, Principal Industry Consultant, World Bank Group 3. Mr Ulrik Eversbush, Director, Danish Energy Agency 4. Mr Philipp Josef Tremer, Project Manager, German Offshore Wind Energy Foundation 5. Mr Sushil Kumar Singh, Chairperson, Deendayal Port Authority **Moderator:** Dr Biswajit Roy, DG, Gujarat Energy Research and Management Institute (GERMI)
Parallel Session C (3)	**Carbon Markets- Financing Clean Technologies**

	India, the fastest-growing enormous economy globally, is set to maintain its rapid expansion. To decouple this growth from emissions, scaling up adoption of green hydrogen/derivatives particularly in hard-to-abate industrial sectors, is essential. This strategy aims to ramp up green hydrogen production and consumption, alongside accelerating carbon finance to support the promulgation of green fuels. The objective of the session is to discuss and delineate the role of carbon trade through Agreements under Article 6 of Paris Agreement and Carbon Markets for quicker adoption of green fuels especially by the hard-to-abate sectors. **Key Discussion Points:** Launch of EY Report on Perspectives on Carbon Markets **Panellists** 1. Mr Sandeep Narang, Director, EY 2. Mr Abhay Bhakre, Mission Director (NGHM), Former DG, BEE MNRE 3. Dr Amit Garg, Professor of Public Systems Group, IIM Ahmedabad 4. Mr Perumal Arumugam, Manager, Mitigation, UNFCC Secretariat 5. Mr Thomas Moeller, Director and Head Renewables, KfW IPEX Bank **Moderator:** Ms Mahua Acharya, CEO, Energy Transitions Platform
Parallel Session C (4)	**Scaling Up Solar Thermal Technologies and Applications** India is ranked among the top 10 countries in solar thermal installed capacity. India has around 19.8 million m2 (13.9 GWth) of solar thermal collector area under operation at the end of 2022, which is close to the National Solar Mission (NSM) target of 20 million m^2 for 2022. India has an estimated exploitable techno-economic potential of 40 million m^2 collector area for solar water heaters (SWH) and a 6.4 GW_{th} market potential of concentrated solar thermal (CST) solutions for industrial use. Studies have indicated the immense potential of solar thermal solutions in replacing fossil-fuel-based systems in industries (e.g., textiles, pharmaceuticals, food processing, dairies, etc.) by supplying low-medium-grade heat in energy-intensive medium and small-scale enterprises (MSMEs). Solar drying technologies are also seeing increased adoption in agri-businesses. The costs of CSP with storage plants have fallen by more than 65% in the last decade with new projects under construction in emerging markets. India's Direct normal irradiation (DNI) varies from 4 to 7 kWh/m^2/day with about 2,300-3,200 sunshine hours per year, which makes it conducive for CSP plants

	integrated with solar thermal storage systems that can store excess energy generated during sunny periods and supply it during cloudy periods or at night, thus addressing intermittency issues. The government of India is looking to promote solar thermal applications by focusing on issuing tenders for dispatchable power generation using CSP, quality control, international collaboration, R&D, and innovation. The session aims to bring together manufacturers, experts, research institutions, policymakers, and industry leaders to discuss strategies for scaling up solar thermal technologies in India to provide sustainable solutions for water heating. solar heat for industrial applications and sustainably meets round-the-clock (RTC) power demand while creating jobs, reducing environmental pollution, accelerating industrial decarbonization, and climate change mitigation climate change mitigation. **Key Discussion Points** • Market Potential and Demand for solar thermal technologies in India including solar water heaters, solar thermal-PV hybrid solutions, and solar thermal with storage. • Domestic and International Case studies, and efforts to support the adoption of solar thermal technologies. • Lessons from international trends/technologies/best practices. • Interventions to enhance the adoption of various solar thermal applications (heating/cooling/power generation/storage) by addressing existing barriers. **Panellists:** 1. Dr Deepak Gadhia, Chairman, Sunrise CSP 2. Mr Surendra Kumar, Chairman, Nuetech Solar 3. Mr Madhusudhan Rapole, CEO & Founder, Oorja Energy Eng'g Services Pvt. Ltd. 4. Mr Nikunj Shukla, Director, Waasol 5. Mr Sunil Saxena, ED, EIL 6. Mr Pankaj Kumar Gupta, General Manager Energy Transition and Policy Research, NTPC **Moderator:** Mr Jaideep N. Malaviya, Secretary General, Solar Thermal Federation of India (STFI)
Parallel Session C (5)	**Partner State Session: Gujarat**
12.15 to 13.30 hrs	**<u>Parallel Sessions – D</u>**

Parallel Session D (1)	**Opportunities in Domestic & Transnational Transmission Grid** The Central Electricity Authority has released the draft National Electricity Plan for transmission sector. The plan outlines a substantial investment of Rs 4.75 trillion by 2027 for developing its transmission infrastructure, including lines, substations and reactive compensation at 220 kV and above voltage levels. This includes 170 transmission schemes with a total estimated cost exceeding Rs 3.13 trillion for inter-state transmission systems (ISTS) and around Rs 1.61 trillion for intra-state systems. Simultaneously, there are opportunities in transnational transmission lines to neighbouring countries like Sri Lanka, Nepal, Bangladesh and Bhutan. The session aims to discuss the challenges and opportunities in developing a seamless electricity grid that caters to renewable energy and addresses intermittency issues by carrying power over long distances. The One Sun One World One Gird initiative, first proposed by Indian Prime Minister Narendra Modi in 2018, envisions three stages: connecting the Indian grid with the Middle East and South Asia, then Africa, and finally achieving global grid interconnection. In addition to covering the technical and logistical challenges, the session will emphasize the importance of strengthening transmission infrastructure to support renewable energy growth. A key focus will be attracting investments to support these large-scale projects. Significant steps have been taken, such as the signing of a MoU during the First World Solar Technology Summit in 2020, and the joint presentation of the "One Sun Declaration" by then UK Prime Minister Boris Johnson and Indian Prime Minister Narendra Modi at COP26 in 2021. A Task Force and an Inter-Ministerial Committee have been established to study and guide the initiative. **Panellists** 1. Mr Pankaj Agarwal, Secretary- Power, Govt of India 2. Mr Ghanshyam Prasad, Chairman, Central Electricity Authority 3. Mr Subir Sen, Executive Director, PowerGrid 4. Mr Rajeev Dalela, President, Transmission and Distribution India & SAARC, Kalpataru Projects International Ltd **Moderator:** Mr Waleed, Lead Energy Specialist, World Bank
Parallel Session D (2)	**Solar Cell Technologies: Novel Manufacturing Approaches From Lab to Production** As the world increasingly shifts towards sustainable solutions, the renewable energy sector stands out as a critical area of focus. A rapid progress in established silicon cell technology and reduced cost is

	driving a clear energy transition from fossil fuel to clean/green energy. Along with crystalline Silicon cell, established thin film PV CdTe based technology is also rapidly expanding their manufacturing horizon. However, in parallel halide perovskite solar cell technology has become main-stream R&D technology by all PV manufacturers and universities. This is certain by now that this is not to miss PV technology with tremendous potential to compliment established PV technology via Tandem cell concepts to reduce levelized cost of energy by minimum 25-30%. Innovations in the solar energy sector are centered around several key areas, including advanced photovoltaic technologies, storage solutions, developing efficient energy storage systems, equipment design, space solar cells, smart grids **Panellists** 1. Mr Dinesh Kabra, NCPRE – IIT Bombay (Academic expert cum entrepreneur ART-PV India) 2. Mr Ivan Shah, CEO, Vikram Solar 3. Prof. Eike Weber, Vice Chairman European Solar Manufacturing Council and Former Director General Fraunhofer ISE 4. Dr Saravanan Somasundaram, Assistant General Manager, EMMVEE Group **Moderator:** Mr Sujoy Ghosh, Vice-President and Country MD-India, First Solar
Parallel Session D (3)	**Artificial Intelligence in Renewable Energy Sector** Artificial Intelligence (AI) is reshaping the energy sector, revolutionising how power is generated, distributed, and consumed. From smart grid management to renewable energy forecasting, and even nuclear power plant safety, AI is fundamentally changing the way the energy industry operates, moving it towards a more efficient, sustainable, and secure future. The objective of the session to discuss and delineate the role of artificial intelligence across the value chain of renewable energy equipment manufacturing, energy generation, operation and maintenance, demand side management. **Key Discussion Points:** Discuss the key trends to facilitate the deployment of artificial intelligence including its performance, reliability, costs, energy requirements, self-learning and adaptive character **Panellists** 1. Mr Abhishek Singh, Additional Secretary (AI), MEITY 2. Dr Amit Paithankar, CEO, Waaree Energies 3. Ms Madhavi Isanaka, Chief Digital Officer, AGEL 4. Mr Sunil Gupta, CEO, Azure Power

	5. Mr L.K.S Rathore, Director (CSIRT-Power & CS Division), Central Electricity Authority **Moderator:** Dr Sumit Chowdhury, Managing Director, Green Earth Exchange
Parallel Session D (4)	**State Session: Maharashtra** **Greening the Grid Opportunities and Potential in Renewable Energy in Maharashtra** 12:15 – 12:20 opening remarks & introduction of speakers. 12-20 – 12:35 RE capacity addition in Maharashtra Shri. Abhay Harane, Director Projects, Mahagenco 12:35 – 12:50 Green Hydrogen Dr. Kadambari Balkawade, Director General, MEDA 12:50 – 13:05 Transmission adequacy for renewable energy in Maharashtra State Shri. Shashank Jewalikar, Executive Director, Mahatransco 13:05 – 13:20: Battery Energy Storage System Shri. Nikhil Meshram, Chief Engineer (RE), Mahadiscom 13:20 – 13:30 Question & Answer Session
Parallel Session D (5)	**Partner State Session: Madhya Pradesh**
Plenary Session 4 14:30 to 15.15 hrs	**Facilitating Equitable Geographical Spread of Renewable Energy Across States** India's diverse geography offers significant potential for cost-effective renewable energy (RE) generation but ensuring equitable access to this power across all states requires a unified approach. This Plenary Session will emphasize the need for a robust transmission system to facilitate the free flow of RE between regions. This involves strategic planning for RE capacity installation and evacuation, addressing regulatory and policy barriers that hinder cross-state energy trade, and creating cost-effective mechanisms that benefit all stakeholders. By enabling RE trading and simplifying regulations, particularly for RE-rich states like Andhra Pradesh, Karnataka, and Rajasthan, India can ensure that renewable energy is accessible and affordable nationwide. Achieving this will require coordinated efforts between state and central governments, as well as private sector participation,

	to create a seamless and integrated national RE market that supports India's sustainability and energy security goals. **Key Discussion Points** • Strategic planning for RE capacity installation and evacuation • Building a robust transmission System • Addressing regulatory and policy barriers • Creating cost-effective mechanisms for stakeholders • Enabling renewable energy trading • Role of state governments and private sector participation • International perspectives and investments **Speakers** **Keynote address by Mr Shripad Yesso Naik, Hon'ble Minister of State (New & Renewable Energy)** 1. Mr Manu Srivastava, Additional Chief Secretary- Department of Energy, Government of Madhya Pradesh 2. Mr Nyusietho Nyuthe, Hon'ble MLA & Advisor to New & Renewable Energy (NRE) Government of Nagaland 3. Mr Satyajit Ganguly, MD and CEO, Power Exchange India Limited 4. Mr G Ravisankar, Chairman, CTUIL 5. Mr Jochen von Frowein, Director-Infrastructure & Energy, Global Equity, DEG KfW Group
15.15 to 16.30 hrs	**Parallel Sessions – E**
Parallel Session E (1)	**Innovative Models for 24x7 Renewable Energy** Renewable resources primarily solar and wind are intermittent in nature. The variable output from these resources makes the balance between demand and supply challenging. Round-the-clock power from renewable sources requires additional capacities. Adding storage to traditional RE offerings through BESS, pumped hydro or green hydrogen storage are other options. Firm and Dispatchable Renewable Energy (FDRE) concept is, therefore, being promoted through various tenders by the Indian and State Government agencies. Hybrid RE projects when combined with storage increase the cost. Nonetheless, these diverse configurations not only improve the Capacity Utilization Factor (CUF) but also optimize the utilization

	of transmission capacity, thereby enhancing the viability and efficiency of renewable energy projects. With enabling regulations and resource planning, FDRE can play a key role in integrating green power into the grid and derisk power supply that has substantial renewable energy component. Besides, business models around RTC power need to be developed in order to have seamless delivery of quality power. Key Discussion Points • Demand forecasting across geographies and seasons • Risk mitigation in FDRE projects • Planning for Energy Storage Systems (ESS) capacity in RTC • Financing and improving bankability of FDRE projects • Structuring of FDRE contracts and sale of power in open market **Panellists** 1. Mr Bhupinder Singh Bhalla, Secretary, Ministry of New & Renewable Energy 2. Mr Raj Kumar Chaudhary, CMD NHPC 3. Mr Neerav Nanavaty, CEO, BluPine Energy 4. Mr Shivanand Nimbargi, Managing Director & CEO, Ayana Renewable Power 5. Mr Jishnu Barua, Chairperson, Central Electricity Regulatory Commission **Moderator:** Mr Mohit Bhargava, Former CEO of NTPC Green Energy Limited and NTPC Renewable Energy Limited
Parallel Session E (2)	**Making Solar PV Central to Citizen Centric Energy Transition** As the global urgency to mitigate climate change intensifies, solar photovoltaic (PV) technology has emerged as a cornerstone in the renewable energy sector. Solar PV, with its scalability, adaptability, and decreasing costs, is uniquely positioned to drive a citizen-centric energy transition. The democratization of energy generation through solar PV can empower individuals and communities, decentralizing power production, reducing dependency on fossil fuels, and contributing to a more sustainable and inclusive energy landscape. A citizen-centric approach to energy transition emphasizes the active participation of individuals and communities in the energy ecosystem. Solar PV technology supports this approach by enabling decentralized energy production. Households, small businesses, and communities can become prosumers—both producers and

	consumers of electricity. This not only reduces energy costs but also fosters energy independence and resilience. Furthermore, local ownership of energy generation assets can stimulate economic growth, create jobs, and reduce inequality by ensuring that the benefits of the energy transition are widely distributed. **Key Discussion Points** • Challenges to widespread adoption of solar PV in a citizen-centric framework • High upfront costs and limited access to finance • Regulatory hurdles and the need for grid integration • Innovative financing mechanisms like solar loans, pay-as-you-go models, etc • Financing of DRE through Development Finance Institutions, Non-Banking Financial Companies, NGOs **Opening Remarks and Keynote Address:** Ms Sujata Gupta, Director, Asian Development Bank (ADB) **Panellists** 1. Mr Govind Sankaranarayan, Cofounder and COO Ecofy 2. Mr Pashupathy Gopalan, CEO, Fenice Energy 3. Ms Shreya Mishra, Chief Executive Officer (CEO), SolarSquare Energy 4. Mr Raghav Agarwal, Director, Rotomag 5. Mr Rajat Sarawat, Executive Director, Energy Markets, Economic Regulation Authority Western Australia 6. Mr Ashok Sharma, Deputy Managing Director & Chief Credit Officer and Chief Sustainability Officer, SBI **Moderator:** Mr Gagan Sidhu, Director, Centre for Energy Finance, CEEW
Parallel Session E (3)	**Women as Leaders in accelerating Energy Transition - Challenges & Opportunities** To meet India's ambitious renewable energy deployment goals, participation from women and women leaders is critical. India can create around 3.4 million jobs by 2030 with the deployment of 236 GW of solar and 101 GW of wind. Currently, a gender gap exists in the Renewable energy sector - women make up only 32 per cent of the workforce in the RE sector at the global level. What gets measured, gets done', and assessing where we currently are will help shape the discourse on increasing women's participation in the energy transition. **Key Discussion Points**

	• Participation of women in the RE sector • Impact of DRE on rural women and delve deeper into what can be done to unlock more clean jobs and livelihoods for Indian women • Stakeholders can collaborate and converge to accelerate the inclusive transition. **Welcome Remarks & Context Setting:** Mr Jeevan Kumar Jethani, Scientist F, MNRE **Keynote Address:** Ms Svenja Schulze, Federal Minister for Economic Cooperation and Development, Germany **Panellists** 1. Ms Susan Jane Ferguson, Country Representative, UN Women 2. Ms Preeti Bajaj, CEO & MD, Luminous 3. Dr Harish Hande, Co-Founder SELCO Foundation **Moderator:** Ms Dipa Singh Bagai, Country Head, NRDC India
Parallel Session E (4)	**Partner Country Session: Norway** **Innovating For a Sustainable Energy System** Norway and India are key players in the energy transition and both countries have committed to ambitious climate targets for 2030. International cooperation is essential to realizing the investments and technology development needed to reach domestic and global targets and the development and deployment of affordable green energy solutions in India and Norway will have significant impact on this. The Indian and Norwegian energy industries have different comparative advantages and are increasingly engaging in mutually beneficial partnerships in the areas of Green Hydrogen, Low-Carbon Solutions, Renewable Energy, Batteries & Energy Storage Systems, Smart Grids, and low-cost financing for clean energy. The strong and increasing collaboration between Norway and India has led to the formation of the India-Norway Task Force on Energy, which will contribute to enhancing this collaboration. The newly signed Trade and Economic Partnership Agreement between EFTA and India is also a testament to the strong bilateral business ties between India and Norway. This session will provide an overview of Norway's journey towards achieving a low-carbon society, highlighting the roles played by

	government, industry, and academia in facilitating this transition. Participants will gain valuable insights from Norwegian experts on the innovative solutions, strategic frameworks, and best practices that have established Norway as a global leader in green energy and sustainable development. The session will delve into various aspects of Norway's energy landscape, including advancements in hydropower, solar, offshore wind, tidal energy, and clean hydrogen, as well as the development of sustainable aviation fuels. Participants will have the opportunity to explore potential avenues for collaboration and knowledge sharing with Norwegian stakeholders, fostering partnerships that aim to drive forward the global energy transition. This will be an invaluable opportunity for stakeholders to engage in discussions on leveraging Norway's expertise to address shared challenges and leverage Norwegian technologies for Indian energy needs. ***Key Discussion Points*** • Energy Transition in Norway • Achieving Climate Goals through investments and partnerships • Renewable energy solutions to meet future needs - Hydropower, Wind, Solar • Emission free aviation • Promoting Circular Economy • Potential of tidal energy for energy production • Positioning India as a global energy leader 15:15 - 15:20 hrs Welcome Address **Ms Martine Aamdal Bottheim** Minister Counsellor and Deputy Head of Mission, Royal Norwegian Embassy in New Delhi 15:20 - 15:25 hrs Special Address **(video speech)** **Mr. Terje Aasland** Minister of Energy, Government of Norway 15:25 - 15:35 hrs Special Address **Mr. Lalit Bohra** Joint Secretary, Ministry of New and Renewable Energy (MNRE), Government of India 15:35 - 15:45 hrs Energy transition in Norway

	Mr. Azam Ali Khan, Country Manager-India, NORWEP and **Ms. Ambika Oberoi Sawhney**, Senior Market Advisor - Energy, Innovation Norway, India **Innovating for a sustainable energy system (40 min)** **Moderator: Ms Silje Christine Andersen, First Secretary, Royal Norwegian Embassy in New Delhi** 15:45 - 15:53 hrs Hydropower, Wind and Solar in India – Opportunities and strategies **Mr. Vikas Garg** Director Development - India, Statkraft 15:53 - 16:01 hrs Achieving climate goals through - Norwegian investments and partnerships **(Virtual)** **Mr. Bjornar Baugerud** Head of Climate Investment Fund, Norway 16:01 - 16:09 hrs Developing renewable energy solutions to meet future energy needs **Mr. Rajesh Joshi** Sr. Vice President & Managing Director – India, Aker Solutions Emission-free aviation with the world's first electric jet turbines **(Virtual)** 16:09 - 16:17 hrs **Mr Abhijeet Inamdar** Founder - SiriNor AS, Norway CEO - SiriNor Technologies, India Tidal Energy in India: Innovation and Potential for 24*7 renewable electricity production. 16:17 - 16:25 hrs **Mr. K R Prajwal** Business Development Manager, Tidal Sails AS 16:25 - 16:30 hrs **Closing Remarks and Vote of Thanks**

	Mr Fredrik Bjerke Abdelmaguid, Deputy Consul General, Royal Norwegian Consulate General in Mumbai
Parallel Session E (5)	**Partner State Session: Rajasthan** 5:15 hrs: Welcome address by RREC Mr K.C. Soni, Director Technical, RREC 15:20 hrs: Presentation RE in Rajasthan & Short Films on RE Mr Pawan Kumar Tanwar, Technical Manager, RREC 15:40 hrs: Sharing of Experiences by Developers: Developer-1: Mr Shamik Parikh, VP, Strategy and Business Development, Adani Developer-2: Mr Parag Sharma, CEO, O2- Power Developer-3: Mr T.R. Kishore Nair, CEO IPP Business, Avaada Developer-4: Mr Naveen Sharma, V. P., Greenko 16:10 hrs Closing Remarks & Vote of Thanks: Mr Yogendra Mathur, General Manager
16.30 to 17.45 hrs	**Parallel Sessions – F**
Parallel Session F (1)	**Making India Global Hub in Battery Energy Storage: Strategies & Opportunities** India's Central Electricity Authority (CEA) projects that by fiscal year (FY) 2031-32, there will be 47.2 GW (236 GWh) of battery storage and 26.7 GW (175 GWh) of pumped-hydro storage. This will require an investment of INR 3,49,283 crores for batteries and INR 1,29,443 crores for pumped hydro. With the decreasing prices of stationary battery systems and recent regulatory clarifications, they are becoming increasingly attractive in the India power market. This session will analyze market trends and regulatory frameworks. It will also explore the potential for generating revenue through stacking grid services, energy arbitrage, and the integration of renewable energy sources, aiming to enhance profitability and any required enhancements required in the regulatory framework. It has been reported that in 2022, almost 2 billion USD worth of lithium-ion batteries were imported from China. Therefore, moving upstream in the battery supply chain from battery assembly to cell manufacturing is crucial for domestic value addition and to create job opportunities. However, establishing a cell manufacturing ecosystem with record low costs of lithium-ion batteries globally requires planning and implementation on financial, technical, and policy fronts. Currently,

	the total cost of establishing a 5 GWh cell manufacturing unit can go up to 450 million USD. Meanwhile, the IEA reported that the average price of lithium-ion batteries was around 100 USD per kWh in 2023 and dropped below 80 USD per KWh which is expected to decrease even more. This would require high investments followed by manufacturers competing against high-quality cells from China. India already has a PLI scheme for 50 GWh but to improve competitiveness we would need a larger manufacturing base. **Key Discussion Points:** • Growth of energy storage deployment in India and investment opportunities. • Current and potential value streams needed in the regulatory framework. • Increasing competitiveness of domestic cell and battery component manufacturers amid falling prices. • Creating a strong supply chain and manufacturing framework for the sustainable implementation of safer Battery Energy Storage Systems (BESS). • Expectations and requirements of investors include return on investment, risk management, and market potential. • Examine the upcoming policy initiatives and regulatory frameworks designed to support and accelerate the growth of storage • Exploring investment opportunities in new and emerging storage technologies that India should focus on **Panellists** 1. Mr Vishal Chaturvedi, Sr. Director – New Business Initiative, Ola Electric 2. Ms Gayatri Dadheech, CTO, Exide industry 3. Mr Anil Ranjanna, Chief Executive Officer, Board Member & Country Head (India), Fluence 4. Mr Satish Talmale, COO, Indigrid 5. Mr Bernhard Kreuzberg, Project Manager, Solar GIZ 6. Mr MM Venkata Krishna, Executive VP & Chief Marketing Officer-Industrial Strategic Business Unit, Amara Raja Energy & Mobility Ltd **Moderator:** Dr Rahul Walawalkar, Founder and Chairman, IESA
Parallel Session F (2)	**Ensuring climate resilience of Renewable Energy Assets in India** India has set ambitious renewable energy (RE) targets, aiming for 500 GW of renewable capacity by 2030. With significant strides already made in solar, wind, and other RE sources, the country is rapidly advancing towards these goals. However, the increasing

	frequency and intensity of extreme weather events in recent years, such as cyclones, floods, and heatwaves, raise critical concerns about the resilience of India's RE infrastructure. These events not only threaten the stability of existing RE assets but also pose risks to the ongoing expansion of the sector, potentially hindering India's progress towards its energy and climate goals. In this context, ensuring the climate resilience of RE assets has become a crucial topic that demands urgent attention. As climate change continues to accelerate, the RE sector must adopt stringent measures to prepare for and mitigate the impacts of extreme weather events. This includes enhancing the design and construction standards of RE infrastructure, improving risk assessment and management practices, and integrating advanced technologies for monitoring and adaptation. The panel discussion will explore the challenges, opportunities, and necessary steps to fortify India's RE assets against the growing threat of climate-induced disruptions, ensuring a sustainable and resilient energy future. **Key discussion points:** • Vulnerabilities of RE infrastructure to extreme weather events • Exploring the latest technological advancements, design improvements, and construction practices • Evaluating the role of predictive analytics, climate modelling, and AI for minimizing disruptions of RE assets • Role of policies and regulations in promoting climate resilience • Determining the need for investments to incorporate climate risk parameters **Panellists** 1. Mr Deepesh Nanda, MD & CEO, Tata Power Renewable Energy Ltd 2. Mr K R Jyothilal, Additional Chief Secretary, Govt. of Kerala 3. Mr Stephan Opitz, Member, Management Committee, KfW 4. Mr Rajesh Lakhoni, Chairman and Managing Director, TANGEDCO 5. Mr Ajay Singh, CEO, SJVN Green Energy Limited **Moderator:** Mr Saptak Ghosh, Senior Policy Specialist, CSTEP
Parallel Session F (3)	**Hydropower - A key to Clean Energy Future** Hydel electricity, particularly small hydropower projects (SHP) and pumped storage hydropower (PSH), is emerging as a critical component of India’s energy transition. PSH plays a pivotal role in managing the variability of renewable energy sources such as solar and wind. By using surplus electricity during periods of low demand

	to pump water from a lower reservoir to a higher one, PSH systems store energy that can be released to generate electricity when demand peaks. This capability stabilizes the grid and ensures a reliable power supply, making PSH essential for integrating high levels of intermittent renewable energy into the energy mix. India's strategy to expand its hydropower capacity includes a strong focus on PSH, supported by strategic policies and government initiatives. Besides the efficacy and capability of Small Hydro Power Projects (SHP) and Pumped Storage Projects (PSP), such projects provide firm renewable power and grid balancing services. The Draft National Electricity Policy and Hydropower Vision 2021-30 underlines the importance of PSH in enhancing grid reliability and integrating renewable sources effectively. In response to these needs, the Central Electricity Authority (CEA) has accelerated the approval process for key PSH projects. Notable among these are the 600 MW Upper Indravati project in Odisha and the 2000 MW Sharavathy project in Karnataka. These projects are part of a broader initiative to address the country's energy storage requirements and support renewable energy targets. With over 60 GW of additional PSP proposals under various stages of preparation and review, and a goal to install 74 GW of energy storage systems by 2031-32, these efforts are crucial. India has a potential of around 176 GW for Hydro PSPs, including 4.7 GW already operational, 4 GW under construction, and 3.6 GW concurred. The session aims to discuss and delineate the role and applications of Small Hydro Power projects and Pumped Storage Projects and deliberate on plan of action for quicker construction and deployment of these resources. **Key Discussion Points** • Role of hydroelectricity as balancing power and energy storage • key growth trends of SHP and PSP market • Policy developments • Opportunities and cost economics • Enabling regulatory and policy frameworks at state and central levels • Challenges • Integrating PSH/PSP with hybrid project models • Outlook **Panellists** 1. Mr Raj Kumar Chaudhary, CMD NHPC 2. Mr Vikas Garg, Director-Development, Stratkraft

	3. Mr Arun Sharma, President, Federation of Indian Small Hydropower (FISH) 4. Mr. Tobias Winter, Director, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH 5. Mr Sujay Shah, Director, Mahati Industries 6. Mr Ninong Ering, Hon'ble MLA cum Advisor Minister (Hydro Power Development, Government of Arunachal Pradesh 7. Mr Sandeep Singhal, Managing Director, UJVN Ltd 8. Mr Maurya Chandra Pydah, Group COO & ED, Greenko Group **Moderator:** Prof. Arun Kumar, Indian Institute of Technology, Roorkee (IIT Roorkee)
Parallel Session F (4)	**Green Taxonomy & Climate Financing** India's commitment at COP26 to achieve Net-Zero emissions by 2070 and install 500 GW of non-fossil fuel energy capacity by 2030 marks a significant milestone in the global fight against climate change. However, realizing these ambitious targets requires a strategic approach to financing and investment, particularly in the renewable energy sector. This panel discussion will explore the critical role of financing in achieving India's COP26 commitments, highlighting the vast investment requirements that lie within the renewable energy landscape. Central to this discussion is the need of Green Taxonomy-a classification system needed to identify and categorize projects that genuinely contribute to environmental sustainability. The Green Taxonomy would direct investments into renewable energy projects, mitigate risks of greenwashing, and enhance investor confidence by providing a clear framework for what constitutes a "green" project. Discussion would also explore benefits offered by Green Taxonomy to financing RE sector financing, such as developing RE bond market, enhancing domestic and global investor confidence and attractiveness for RE project financing, employment opportunities among others. The session will also address key risks associated with the implementation of the Green Taxonomy, including the evolving global financing landscape, potential regulatory challenges, and the need for continuous updates to the taxonomy to reflect technological advancements and global standards. Participants will gain insights into how strategic financing, guided by a well-defined Green Taxonomy, can drive India's energy transition, attract global investments, and ensure that the country meets its COP26 targets.

	Key discussion points • Role of RE Financing: Highlighting investment opportunities within India's renewable energy landscape crucial for achieving climate targets. • Expected RE financing investment till FY2030: Highlight investment requirement for developing RE capacity, transmission and manufacturing & related infrastructure capabilities • Green Taxonomy as a key enabler to unlock financing: Defining and categorizing sustainable projects to unlock financing RE projects, while benefiting the financing of RE sector. • Addressing potential implementation risks & challenges: Examining regulatory challenges and the need for continuous updates to the Green Taxonomy. **Panellists:** 1. Mr Pradip Kumar Das, CMD IREDA 2. Mr Deepak Agrawala, Senior Executive Vice President, Avaada Group 3. Mr Kailash Vaswani, Group Chief Financial Officer, ReNew 4. Mr Pritesh Vinay, CFO, JSW Energy 5. Mr Jitendra Singh, Head Engg & Tech Acme 6. Ms Kumi Kitamori, Deputy Director Environment, OECD **Moderator:** Mr Umang Shah, MD and Partner, Boston Consulting Group
19.00 to 20.30 hrs	**CEO Round Table** ***List of CEOs has been shared***
20.30 hrs – Onwards	**Cultural Programme (Followed by Dinner)**
Day 3, 18th September 2024	
<u>Plenary Session 5</u> **0930-1015 hrs**	**India's Pathway to Net-Zero Emissions** India has committed to achieving net zero emissions by 2070, as outlined in its Nationally Determined Contribution (NDC) submitted to the United Nations Framework Convention on Climate Change

	(UNFCCC). This ambitious goal requires a transformative shift across sectors, including energy, transportation, industry, agriculture, and forestry. The Government of India has taken significant strides towards this goal through various initiatives such as the National Hydrogen Mission, the Production Linked Incentive (PLI) scheme for advanced chemistry cell battery storage, and the FAME India scheme for electric vehicles. These initiatives aim to foster innovation, attract investments, and promote sustainable development. The plenary session aims to tackle challenges like land availability, grid reliability, and the financial health of distribution companies, while providing strategies to overcome these obstacles. It will also emphasise the significance of policy reforms, increased investment, and stakeholder collaboration in the pursuit of achieving net-zero emissions by 2070. **Key Discussion Points** 1. Challenges and opportunities 2. Role of government policies 3. Private sector engagement 4. International cooperation 5. Financing net zero **Keynote Speaker:** Mr Bhupender Yadav, Hon'ble Union Minister of Environment, Forest and Climate Change **Speakers** 1. Mr PK Singh, OSD, Government of India 2. Mr R P Gupta, Chairman & Managing Director, SECI 3. Mr Nishit Mehta, Chief Business officer, Serentica Renewables 4. Mr Saurabh Khedekar, President & Chief Executive Officer Specialty Alumina Business - Hindalco Industries Limited 5. Mr Chandan Goswami, Chief Financial Officer, Jakson Green 6. Mr Manoj Tanwar, Chief Technical Officer, Greenko
10.15 to 11.30 hrs	**Parallel Sessions – G**
Parallel Session G (1)	**Resource Efficiency & Circular Economy in Renewable Energy** UNFCCC COP 28, at UAE, the countries have agreed for tripling of the RE capacity by 2030. In our country as well, there is an

	accelerated deployment of RE. Every year, we are targeting to add 50GW of solar to meet the 500GW of non-fossil fuel goal by 2030. At the same time, there are studies which project that these RE technologies will produce a large amount of end life and mid-life waste. This is where the role of recycling and reuse becomes vital. Also, the recent IEA study suggests that the RE technologies will be highly material intensive and only 25 percent of the materials that are currently being used could be recycled using existing technologies. This is both a concern and opportunity for the upcoming energy transition discourse. To turn the concern into opportunity is based on two key principles, (a) develop a resource efficiency-based framework across the value chain of the RE technologies, (b) create a positive narrative for the investors. While the estimated market for the sector is around 45 billion USD by 2030 and could create a market of 218 billion USD by 2030. Given this potential, what we need is an enabling policy ecosystem and a positive narrative where the investors would feel empowered to invest in the sector. Therefore, we need a discussion to understand the concerns from all the stakeholders to understand what is holding back from investing, despite the potential. What are the ecosystem level leverage points that can be explored to facilitate across the players to make this sector a vibrant and positive return oriented one. It will also discuss the existing opportunities to cross-fertilise such as using green bonds to create positive momentum, ESG framework in a more effective manner and other investment strategies that could ultimately benefit the sector transit from a linear to a circular economy. **Key discussion points** • Understanding the current issues at the value-chain level in key RE technology for investing in circular economy • Exploring the appropriate need for standards and guidelines on a circular economy framework for the full value chain • Opportunities for future policies for investment-based narrative on circular economy in RE technology **Panellists** 1. Mr Vivek Sharma, Chief-Energy Strategy Group, Adani Energy Solutions 2. Mr Vaibhav Singh, Executive Director, PwC 3. Mr Rohit Pathak, CEO Copper Business, Hindalco Industries 4. Dr Julie Reviere, Country Director, GIZ 5. Mr Kunal Saxena, Head Strategic Investment, AMPIN Energy Transition **Moderator:** Mr Madhav Pai, CEO, WRI India
Parallel Session G (2)	**Strategic Investment in Bioenergy – A Way for Sustainability**

	Bioenergy transforms the life force of nature into sustainable power, fuelling our future with the essence of the earth itself. It will be important to visualize that the global bioenergy market is expected to reach a staggering $225 billion by 2028, growing at a compound annual growth rate (CAGR) of 6.2%. India, with its abundant biomass resources and supportive government policies, is well-positioned to capture a significant share of this market. The country's ambitious targets under the National Bioenergy Programme aim high to make a mark in overall energy mix. The bioenergy sector in India needs a further push for greater investment in technology and infrastructure. However, with rising awareness of environmental sustainability and increasing demand for clean energy, the future looks promising. The international best practices to focus on innovation, coupled with public and private sector investment, can be the key to overcoming these challenges. The Government of India advocates for bio-methanation not only to mitigate methane emissions and generate sustainable energy but also to address it in a more holistic manner, including scientific organic waste management, decarbonization, climate smart agriculture benefiting farming and allied sectors. **Key discussion points:** • The role of global collaboration in bioenergy projects • Bio-methanation co-benefits beyond energy • Monetizing carbon credits in bioenergy enterprises • International best practices towards fostering the biomethane ecosystem • Carbon capture and downstream utilization in bio methanation plants including further biogas valorisation possibilities • Financing instruments for de-risking large scale bioenergy projects **Panellists** 1. Dr Sangita M Kasture, Advisor Bioenergy, Ministry of New and Renewable Energy (MNRE) 2. Mr Bijay Kumar Mohanty, Director (Finance), IREDA 3. Mr Christoph Spurk, Vice President, German Biogas Association 4. Mr Patrick Crehan, Founder and Director, Crehan Kusano & Associates (CKA) 5. Mr K.S. Popli, Country Director, World Biogas Association, London, UK 6. Mr Raju Chopra, Head of Technical Sales & Service (Clean Fuels, Chemicals & Clean Air), Topsoe India Pvt. **Moderator:** Dr Gaurav Kedia, Chairman, Indian Biogas Association

Parallel Session G (3)	**Capacity Building for Energy Transition**

India is working towards a low carbon emission pathway while simultaneously endeavouring to achieve sustainable development goals. Its Nationally Determined Contribution (NDC) are taking forward the vision of a sustainable lifestyle and climate justice to protect the poor and vulnerable from adverse impacts of climate change. Shift from fossil fuels to renewable energy sources requires equitable and inclusive for all segments of society. India's NDC centres around policies and programmes on promotion of clean energy, especially renewable energy, and enhancement of energy efficiency for achieving the goal of sustainable Energy Transition. India's leadership and commitments to decarbonisation have opened up multi-faceted opportunities in the green economy. These opportunities include employment, livelihoods and income supplementation, entrepreneurship, market opportunities and investment opportunities in the green sectors.

The ambitious clean energy goals of the Country necessitate a skilled and globally mobile workforce capable of adapting to the evolving energy landscape. Central to this approach is the creation of economic opportunities through job creation and skills training in the renewable energy sector. This not only helps to stimulate local economies but also provides new career paths for individuals who may be displaced from traditional energy sectors. Training programs should be accessible and tailored to the specific needs of the workforce, ensuring that transitions are smooth and that no one is left behind. The transition to renewable energy requires significant investments in infrastructure, cutting-edge research, vocational education and the development of technical skills to keep pace with technological advancements. Both the government and private sector recognize the importance of engaging and equipping new talent to meet these demands. Studies indicate that the renewable energy sector alone will require over 47 million trained individuals by 2030. This session addresses the skilling gaps, challenges, measures and investment strategies to strengthen the skilling ecosystem in India and for global mobility.

Key discussion points

- Context setting capacity building in RE
- Skilling eco system in the Country
- Opportunities identified for Skilling and education: RE skilling ecosystem - Indian & International

	• Financing models for skilling: International & Indian investments • Harmonisation with Global skilling standards, Inclusion and global mobility: • Synergy between skilling institutes and RE industry. • Skills gap mapping, training and anticipating future skills • Promotion of entrepreneurship in RE Sector. **Panellists** 1. Mr Atul Kumar Tiwari, Secretary, Ministry of Skill Development and Entrepreneurship 2. Dr A K Tripathi Scientist/ Division Head, Ministry of New & Renewable Energy 3. Dr Omkar Jani, President & CTO, Reliance New Solar Energy Limited 4. Dr Rodney Riviere, Cluster coordinator-SPSD Cluster-GIZ India and Head of the Indo-German Vocational Education and Training program, GIZ 5. Mr David Proddok, The Blended Finance, Germany **Moderator:** Mr Sunil Jain, Chairman, Skill Council of Green Jobs
Parallel Session G (4)	**Session on Agrivoltaics: Germany** **<u>Concept-Note Agrivoltaics</u>** As part of the Indo-German platform for collaboration on Renewable Energy, GIZ on behalf of BMZ worked together with the International Solar Alliance (ISA) and the National Solar Federation of India. (NSEFI) on 'Innovative Solar' solutions with a strong focus on agrivoltaics for India. As part of this initiative, a high-level panel discussion on agrivoltaics, addressing regulatory, policy, and financial aspects is to be organized during RE-INVEST from 16-18 September'24 in Gandhinagar. To ensure a comprehensive and well-informed discussion at RE-INVEST, two deep-dive workshops have been organized in advance of the panel discussion at the RE-INVEST. These workshops brought together key stakeholders to explore challenges and opportunities in the agrivoltaics sector, with one that has focused on the policy & regulatory aspect, and the other one on financing mechanisms. The outcomes of these workshops serve as the foundation for the high-level panel discussion at RE-INVEST. Key findings, recommendations, and insights from both workshops will be synthesized and presented during the panel, ensuring that the RE-INVEST discussion is grounded in expert knowledge and stakeholder

	perspectives. This approach will allow to present a comprehensive, well-informed view of the agrivoltaics landscape in India, including both challenges and potential solutions. Agenda for Session G (4): 18.9.2024 at 10.30 am at Seminar Hall 4 - Context Settings: Ms. Elisabeth Richter, Deputy Head Economic Cooperation & Development, Embassy of of the Federal Republic of Germany - Ms Suman Chandra, Director, Ministry of New & Renewable Energy (Moderator) Panellists - Mr J K Jethani, Scientist F, Ministry of New & Renewable Energy - Mr Joshua Wycliffe, COO, International Solar Alliance - Ms Caroline Gassner, Head-Department South Asia, KfW Development Bank - Mr Vivek Saraf, CEO of Sunseed APZ - Mr Julius Spatz, Head of Asia Division, GIZ - Mr Saptak Ghosh, Mr Saptak Ghosh, Senior Policy Specialist, CSTEP
Parallel Session G (5)	**Renewable Energy Quiz at RE-INVEST**
11.30 - 13.00 hrs	**<u>Valedictory Session</u>** The RE INVEST culminates in a grand Valedictory Session, celebrating the achievements, discussions, and milestones reached over the course of the event. This session will not only mark the formal conclusion of the event but will also inspire participants to continue their efforts in the field of renewable energy. To recognise and honour outstanding contributions and innovations in renewable energy through an award ceremony. The highlight of the session will be the award ceremony, hosted to honour individuals and organisations that have made significant contributions to renewable energy. **Key Discussion Points** • To summarise the key takeaways and insights gained during the event • To recognise and honour outstanding contributions and innovations in renewable energy through an award ceremony • To provide a platform for final remarks from keynote speakers, industry leaders, and participants.

	• To foster a sense of community and shared purpose among attendees, encouraging ongoing collaboration and innovation. **Speakers** 1. Mr Jagdeep Dhankar, Hon'ble Vice President of India 2. Mr Pralhad Venkatesh Joshi, Hon'ble Union Minister of New & Renewable Energy and Consumers Affairs, Food and Public Distribution 3. Mr Bhupendrabhai Patel, Hon'ble Chief Minister of Gujarat 4. Mr Bhupender Yadav, Hon'ble Union Minister of Environment, Forest and Climate Change 5. Mr Shripad Yesso Naik, Hon'ble Minister of State (New & Renewable Energy) 6. Mr Acharya Devvrat, Hon'ble Governor of Gujarat 7. Mr Bhupinder Singh Bhalla, Secretary, Ministry of New & Renewable Energy