



भारत 2023 INDIA

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CEM-14/MI-8

INDIA 2023

ADVANCING CLEAN ENERGY TOGETHER



CEM14/MI-8

Ministerial Briefing Pack

Goa, India

19-22 July 2023

Version 1 (14th July 2023)



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1 INTRODUCTION

1.1 INTRODUCTION



The Government of India is proud to be hosting the 14th Clean Energy Ministerial (CEM14) and 8th Mission Innovation (MI-8) in 2023 (CEM14/MI-8), alongside the G20 Energy Transition Ministerial Meeting in Goa, India. Jointly organized by the Bureau of Energy Efficiency (BEE), Ministry of Power, and Department of Science and Technology (DST), Government of India, CEM14/MI-8 is scheduled to take place between 19-22nd July 2023. In addition to a Ministerial Plenary scheduled for 21st July 2023, a rich program of side-events and a technology showcase are planned between 19-22nd July.

Goa, situated on the west coast of India, is a tourist paradise. It is endowed with various attractions, including palm-fringed beaches, miles of golden sands, lush green countryside, an incredible mosaic of heritage architecture- magnificent churches, temples, forts and monuments, a unique cultural synthesis of the East and West. Goa is a treasure trove of culture, music, dance, and art forms that can be enjoyed during local festivals and celebrations. Neatly tucked along the western coast of India, Goa has several beaches and an over 300-year-old Portuguese architectural heritage. The Churches and Convents of Goa have been included in the list of World Heritage Sites. The city is known for its vibrancy that attains its pinnacle in the annual Goa Carnival festival!

As the CEM14/MI-8 Chair, India takes the opportunity to showcase its progress towards net zero targets and mark its presence among the clean energy global leaders. Seeking to be the torch bearer for other emerging economies traversing on their paths towards clean energy transition, India believes that there could be significant North-South and South-South learning through open dialogues and joint efforts towards a clean and green economy.

This year the CEM-14/MI-8 program has received enormous responses, with more than 1000 participants registered from more than 40 countries. An impactful high-level program, that has received confirmation from more than 25 Ministers, Heads of Delegations and over 40 CEOs is also envisaged as part of the four-day event.

1.2 PROGRAM HIGHLIGHTS

MINISTERIAL PLENARY (21ST JULY, 2023) (BY INVITATION)

The Ministerial Plenary is envisaged to be a joint session for CEM and MI wherein delegates are expected to elaborate on the status of clean energy innovation and deployment in their respective countries. Participants would also be expected to shed light on their vision and future course of action as far as clean energy is concerned. The idea is to ensure that deliberations during CEM-14/MI-8 are outcome oriented and greater importance will be ascribed to actions geared towards achieving mutually identified clean energy objectives. In this regard, delegates would be encouraged to provide their inputs regarding existing gaps and urgent issues that impede the acceleration of clean energy innovation and deployment. Suggestions would also be sought for how these may be circumvented through the CEM/MI engagement.

The Plenary will be an opportunity for the current hosts, India, to outline their clean technology and innovation vision, reflecting upon learnings from the CEM13/MI-7 hosted by the US last year, and discuss plans for CEM15/MI-9 next year in Brazil.

ROUNDTABLES AND HIGH-LEVEL DIALOGUES (21ST JULY, 2023)

Following the Ministerial Plenary, eight roundtables and high-level dialogues are planned as a part of this year's events. Covering diverse and pertinent policy issues, these roundtables seek to inspire and challenge ministers and the private sector to raise ambition and accelerate action towards clean energy. Deliberating upon the central question of how CEM and MI can help drive actionable solutions, these roundtables are expected to set the stage for ambitious deployments supporting future transition pathways.

The topics for the aforementioned roundtables and dialogues are as follows: Access to Energy, Battery Storage, Biofuels, Clean Energy Marine Hubs, Green Hydrogen, Industry Decarbonization, One Sun, One World, One Grid (OSOWOG), and Sustainable Cooling.

BUSINESS DIALOGUES (21ST JULY, 2023)

Vibrant business dialogues are also anticipated on the side-lines of the Ministerial Plenary. Envisaged as business to business (B2B) discussions, these dialogues would highlight the progress made by industry towards decarbonisation, displaying effective solutions that worked, and setting the course for future actions.

SIDE EVENTS (19TH, 20TH AND 22ND JULY, 2023)

More than seventy events are lined up as part of this year's CEM14/MI-8, covering the themes of energy efficiency, clean fuels, industry decarbonisation, power, mobility, innovation, urban systems and cross-cutting issues.

Led by various CEM Workstreams and MI Missions, many of these side events follow directly from targets and action plans drawn up by lead and member nations providing thought leadership on many current pressing issues. A significant number of events have also been proposed by premier international and intergovernmental organisations, covering diverse and thought-provoking topics.

Events organised by Indian organisations look extremely promising as well. There are expected to be multiple sessions organised by Indian Think Tanks, research organizations, and policy institutions to deliberate upon contemporary issues and highlight solutions that have worked in the Indian case.

TECHNOLOGY AND CULTURAL SHOWCASE (19TH-22ND JULY, 2023)

In recent years, the Technology Showcase has been a key element of the CEM and MI meetings exhibiting the best-in-class technologies from around the world. This year's technology showcase will feature new and emerging technologies like electric vehicles (EVs), hydrogen, and other clean fuel technologies across the globe in various sectors and provide a unique experience. The technology showcase will comprise of three parts i.e., Vehicle and Charging Infrastructure Showcase (SIAM, TERI, CALSTART, and Drive to Zero), Innovation (Department of Science and Technology), and Clean Tech Start-up (TERI).

A cultural showcase, highlighting the cultural flavour of Goa, may also be planned alongside, organised by the State Government of Goa.

1.3 OVERVIEW BLOCK AGENDA 19-22 JULY

Day 1 Programme: Wednesday 19 July

07:30-09:00 [90mins]	Registration and Badging (<i>help desk at The Grand Hyatt</i>)
09:00-18:00 [All-day]	Technology Showcase (<i>Dr. S.P. Mukherjee Indoor Stadium</i>)
09:00-10:30 [90mins]	Side Events Round 1 (<i>Ground Level</i>) <ul style="list-style-type: none"> • Transition towards Low-carbon Affordable Heating and Cooling Solutions - The way ahead (<i>Salao 1</i>) • Scaling clean energy solutions globally: CleanTech Exchange Platform & the Gigaton Challenge (<i>Salao 3</i>) • Energy Compacts: Raising Ambition in Support of SDG7 in India (<i>Ballroom 3</i>) • Technology innovation to and from emerging economies: deep decarbonisation of industry (<i>Ballroom 2</i>) • Financing CCUS (<i>Ballroom 1</i>)
10:30-10:45 [15mins]	Tea/Coffee
10:45-12:15 [90mins]	Side Events Round 2 (<i>Ground Level</i>) <ul style="list-style-type: none"> • Mobilizing Sustainable Biomass Feedstocks for Future Fuels and Chemicals (<i>Salao 1</i>) • A Gigatonne Opportunity and the 21st Century Innovation Ecosystem: Accelerating globally sustainable 1.5C compatible solutions for a future where 11 billion people can live flourishing lives (<i>Salao 2</i>) • Role of Nuclear Energy in the Clean Energy Workforce of the Future: Strategies & Solutions (Panel Discussion) (<i>Salao 3</i>) • Driving Innovation and Scaling up Carbon Removal Technologies (<i>Ballroom 3</i>) • Hydrogen – the Nordic rally to the valley and Nordic green sailing (<i>Ballroom 2</i>) • Opportunities for Energy Transition within the Agricultural Cold Chain and Logistics Sector (<i>Ballroom 1</i>)
12:15-13:15 [60mins]	Lunch at Pre-function area
13:15-14:45 [90mins]	Side Events Round 3 (<i>Ground Level</i>) <ul style="list-style-type: none"> • Accelerating net-zero ambitions through clean hydrogen for decarbonization of industrial value chains (<i>Salao 1</i>) • Collaboration to Advance Global Action on Climate Friendly Cooling (<i>Salao 2</i>) • Policy and financing for a Just and Inclusive Energy Transition at the sub-national level in India (<i>Salao 3</i>) • The Global Carbon Management Challenge (<i>Ballroom 1</i>) • Building Resilient Solar Supply Chains: Report Launch and Path forward (<i>Ballroom 2</i>) • The Road to COP28: Delivering the Breakthrough Agenda Priority Actions and looking forward to the 2023 Breakthrough Agenda Report (<i>Ballroom 3</i>)
14:45-15:00 [15mins]	Tea/Coffee
15:00-16:30 [90mins]	Side Events Round 4 (<i>Ground Level</i>)

	<ul style="list-style-type: none"> • Measurement, Reporting and Verification (MRV) for Carbon Dioxide Removal (CDR) – Opportunities for Collaboration (<i>Salao 2</i>) • Shaping the Future of Energy Systems: Strategic agenda of the Long-Term Energy Scenarios (LTES) Initiative (<i>Salao 3</i>) • Enhancing sub-national commitments to clean road transport transitions (<i>Ballroom 1</i>) • New Technologies and Policies for a Net-Zero Biofuture (<i>Ballroom 2</i>) • Mission Efficiency Roundtable – Energizing Energy Efficiency with a Marketplace (<i>Ballroom 3</i>)
<p>16:30-16:45 [15mins]</p>	<p>Tea/Coffee</p>
<p>16:45-18:00 [75mins]</p>	<p>Side Events Round 5 (Ground Level)</p> <ul style="list-style-type: none"> • Enabling a Global Transition to Zero-Emission Vehicles (<i>Salao 1</i>) • Panel Discussion on an Economy-wide Quantified Goal on Energy Efficiency in India (<i>Salao 2</i>) • Youth RISE for NICE Future: A Nuclear Energy Youth Fair (<i>Ballroom 1</i>) • Solar Supply Chains: Considerations for Policymakers; Roundtable on Policy Briefs and Panel on Traceability Schemes in the US and EU (<i>Ballroom 2</i>) • Accelerating Circular Carbon Economy Transition in Diverse Country Contexts (<i>Ballroom 3</i>)



Day 2 Programme: Thursday 20 July	
07:30-09:00 [90mins]	Registration and badging Day 2 (<i>Help desk at The Grand Hyatt</i>)
09:00-18:00 [All-day]	Technology Showcase (<i>Dr. S.P. Mukherjee Indoor Stadium</i>)
09:00-10:30 [90mins]	Side Event Round 1 (<i>Ground Level</i>) <ul style="list-style-type: none"> Accelerating Regional and Global Energy Interconnection to Meet the Global Clean Energy Deployment and Climate Goal (<i>Salao 1</i>) The 24/7 Clean Energy Accelerator (<i>Salao 2</i>) CEM ISGAN – MI GPFM collaboration for power system transformation, with special focus on policy and private sector engagement (<i>Salao 3</i>) SEAD: Large Scale Deployment of Super-Efficient Appliances for Cooling and Call to Action Progress (<i>Ballroom 1</i>) eFAST India – Driving Zero Emission Freight in India (<i>Ballroom 2</i>) Igniting Change: Breaking Down Barriers to Gender Equality (<i>Ballroom 3</i>)
10:30-10:45 [15mins]	Tea/Coffee
10:45-12:15 [90mins]	Side Event Round 2 (<i>Ground Level</i>) <ul style="list-style-type: none"> Spotlight on GPFM: towards 5 demos in five continents (<i>Salao 1</i>) Mayors-Ministers Dialogue: Future-proofing urban infrastructures (<i>Salao 2</i>) Decarbonising the global cement sector with carbon capture (<i>Salao 3</i>) CETP – A European Approach to an International Cooperation for the Clean Energy Transition (<i>Ballroom 1</i>) Strategies to improve EV Charging Infrastructure Buildout, Access, and Grid Integration (<i>Ballroom 2</i>) Sustainable cooling for a just and equitable energy transition (<i>Ballroom 3</i>)
12:15-13:15 [60mins]	Lunch at Pre-function area
13:15-14:45 [90mins]	Side Event Round 3 (<i>Ground Level</i>) <ul style="list-style-type: none"> ZEVWISE: Zero-Emission Trucks and the Energy sector: Bridging the infrastructure gap and financing the transition (<i>Salao 1</i>) Mission Innovation Think Tank: Strengthening Clean Energy Innovation Policy, Programs and Collaborations through Knowledge Sharing (<i>Salao 2</i>) Enablers for an acceleration of clean hydrogen production and uptake (<i>Salao 3</i>)
14:45-15:00 [15mins]	Tea/Coffee
15:00-16:30 [90mins]	Side Event Round 4 (<i>Ground Level</i>) <ul style="list-style-type: none"> Unleashing the global potential for clean hydrogen in ports and the maritime sector (<i>Salao 1</i>) CEM-MI collaboration for technology innovation and implementation, policy, and regulatory actions to rapidly decarbonize power systems (<i>Salao 2</i>) Powering the Future: Exploring Global Innovations in Hybrid Renewable Energy Business Models and Models for Grid Flexibility (<i>Salao 3</i>)
16:30-16:45 [15mins]	Tea/Coffee
16:45-18:00 [75mins]	Side Event Round 5 (<i>Ground Level</i>) <ul style="list-style-type: none"> Launch of the CEM Clean Energy Marine Hubs Initiative (<i>Salao 1</i>) CEM Power Workstreams: Release of Action Plans for Rapid Power Sector Decarbonization (<i>Salao 2</i>) ISA Event on Green Hydrogen (<i>Salao 3</i>) Awards Ceremony (ISGAN & EMLA) (<i>Ballroom L</i>)

Day 3 Programme: Friday 21 July	
08:00-09:00 [60 mins]	Registration and Badging
09:00-18:00 [All-day]	Technology Showcase (Dr. S.P. Mukherjee Indoor Stadium)
09:00-14:30 [5.5hr]	<p>CEM14 and MI-8: Joint MI-CEM Ministerial Plenary Sessions <i>(By Invitation)</i></p> <ul style="list-style-type: none"> • 09:00-09:30: Welcome and Opening Remarks <i>(Grand Ballroom)</i> • 09:30-10:30: Key Global Highlights on Clean Energy from MI and CEM <i>(Grand Ballroom)</i> • 10:30-10:45: Tea/Coffee • 10:45-13:15: CEM14 and MI-8: Joint MI-CEM Ministerial Plenary Sessions (closed-door) <i>(Grand Ballroom)</i> • 13:15-14:30: Ministerial Lunch
09:00-14:30 [5.5hr]	<p>Parallel Sessions on Business Dialogues and Side Events (Public)</p> <ul style="list-style-type: none"> • 09:30-10:30: Business Dialogue 1 (B2B) FICCI <i>(Salao 1)</i> • 09:30-10:30: Business Dialogue 2 (B2B) CII <i>(Salao 2/3)</i> • 10:45-13:00: Panel Discussion Decarbonizing Development – empowering Rural India (Power Foundation of India) <i>(Salao 1)</i> • 11:00-13:00: Business Dialogue 3 (B2B) NTPC <i>(Salao 2/3)</i> • 13:15-14:30: Lunch
14:30-15:45 [75mins]	<p>Minister-CEO Roundtable /High-level Dialogues 1</p> <ul style="list-style-type: none"> • High-level Dialogue on Sustainable Cooling <i>(Ballroom 1)</i> • Closed-Door Minister-CEO Roundtable on Green Hydrogen <i>(Ballroom 2)</i> • Closed-Door Minister-CEO Roundtable on Battery Storage <i>(Ballroom 3)</i> • High-level Dialogue on Access to Energy <i>(Salao 1)</i>
15:45-16:00 [15mins]	Tea/Coffee
16:00-17:15 [75mins]	<p>Minister-CEO Roundtable /High-level Dialogues 2</p> <ul style="list-style-type: none"> • High-level Dialogue on One Sun One World One Grid (OSOWOG) <i>(Ballroom 1)</i> • Closed-Door Minister-CEO Roundtable on Biofuels <i>(Ballroom 2)</i> • Closed-Door Minister-CEO Roundtable on Clean Energy Marine Hubs <i>(Ballroom 3)</i> • High-level Dialogue on Industry Decarbonisation <i>(Salao 1)</i> • Panel Discussion: Green Financing (REC) (16:00-18:00) <i>(Salao 2/3)</i>
17:15-17:30[15mins]	Tea/Coffee
17:30-18:30 [60mins]	<p>Launches, Fire Side Chat, Press Briefing</p> <ul style="list-style-type: none"> • Launches/Announcements <i>(Ballroom 1)</i> • Fire Side Chat <i>(Ballroom 2)</i> • Press Briefing <i>(Ballroom 3)</i>
19:00- onwards	Dinner

Day 4 Programme: Saturday 22 July	
07:30-09:00 [90mins]	Registration and Badging
09:00-18:00 [All-day]	Technology Showcase (<i>Dr. S.P. Mukherjee Indoor Stadium</i>)
09:00-10:30 [90mins]	Side Event Round 1 (<i>Ground Level</i>) <ul style="list-style-type: none"> • Solar Lighthouse in Africa: Lessons Learned from India's Solar Programs (<i>Salao 1</i>) • Promoting lifestyle changes for climate neutrality and fair energy demand reduction (<i>Salao 2</i>) • Role of Responsible Steel Standard and Certification in impacting Policy, Energy Transition, Finance to accelerate steel decarbonization in India (<i>Salao 3</i>) • Zero-Emission Truck High Level Ambition Group for India (<i>Ballroom 3</i>) • International Cooperation for a resilient and decarbonized building sector: near zero emission, emission-free/energy positive (<i>Ballroom 2</i>)
10:30-10:45 [15mins]	Tea/Coffee
10:45-12:15 [90mins]	Side Event Round 2 (<i>Ground Level</i>) <ul style="list-style-type: none"> • Flexible Marketplace for Green Energy Trading Amongst Local Energy Communities (<i>Salao 1</i>) • Accelerating the energy transition in Asia's transport through sustainable and equitable e-mobility (<i>Salao 2</i>) • Capacity Building in Power Sector (<i>Salao 3</i>) • Unleashing Renewable Energy's Full Potential: setting a global target (<i>Ballroom 3</i>) • Imperative of hydrogen economy for India and the World (<i>Ballroom 2</i>)
12:15-13:15 [60mins]	Lunch (<i>Pre-function area</i>)
13:15-14:45 [90mins]	Side Event Round 3 (<i>Ground Level</i>) <ul style="list-style-type: none"> • Accelerating India's transition towards Net Zero through Energy Efficiency, Sustainable Cooling & Mobility (<i>Salao 1</i>) • Strengthening the global demand signal for green steel, cement and concrete (<i>Salao 2</i>) • Key Challenges of this Decade to Transform Clean Energy Policies: CEM Workstreams Perspectives (<i>Salao 3</i>) • EPI: Collaborative Strategies for Jobs and Skills for Just Clean Energy Transitions (<i>Ballroom 3</i>) • Offshore Wind Power Evacuation through Submarine Power Cable (<i>Ballroom 2</i>)
14:45-15:00 [15mins]	Tea/Coffee
15:00-16:30 [90mins]	Side Event Round 4 (<i>Ground Level</i>) <ul style="list-style-type: none"> • Launch of the International Hydrogen Trade Forum (<i>Salao 1</i>) • Cross-cutting Policy Levers for Hard-to-Abate Sectors (<i>Salao 2</i>) • Global Policy Makers Dialogue on Agri-Renewables, Securing Water-Energy-Food Nexus for a Sustainable World (<i>Salao 3</i>) • High-level Roundtable: Accelerating Offshore Wind Deployment (<i>Ballroom 3</i>) • Financing Industry Decarbonization for Just Transition (<i>Ballroom 2</i>)
16:30-16:45 [15mins]	Tea/Coffee
16:45-18:00 [75mins]	Side Event Round 5 (<i>Ground Level</i>) <ul style="list-style-type: none"> • Cooling the Cities of Future (<i>Salao 2</i>) • Global Collaboration on Energy Storage for Clean Energy and Clean Transportation (<i>Salao 3</i>) End of Event

1.4 OVERVIEW VENUE

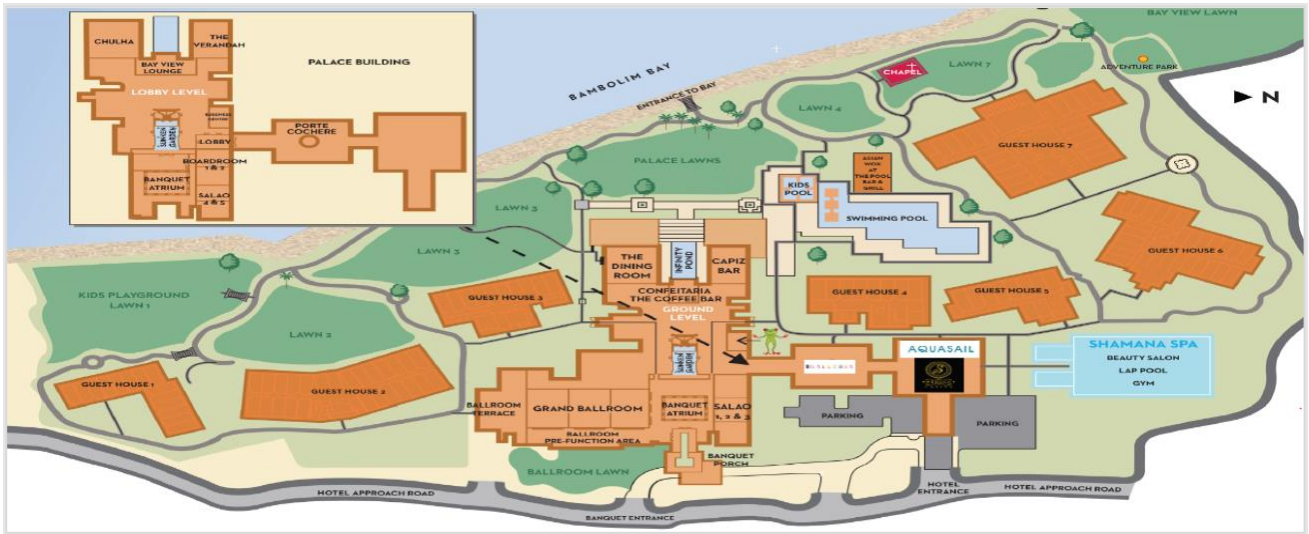


Figure 1 Grand Hyatt Hotel Goa

Most of the official CEM14/MI-8 ministerial programme from 19 to 22 July will be held on the ground floor of the Grand Hyatt Hotel (see Figure 1).

SESSIONS	FLOOR
Side Events Venues	Salao 1, 2, & 3, Ballroom 1, 2, & 3
CEM/MI Joint Plenary	Ballroom 1, 2, & 3
High-Level Dialogues	Ballroom 1 & Salao 1
Minister-CEO Roundtables	Ballroom 2 & 3
Press Conference	Salao 1
Launches And Announcements	Ballroom 1

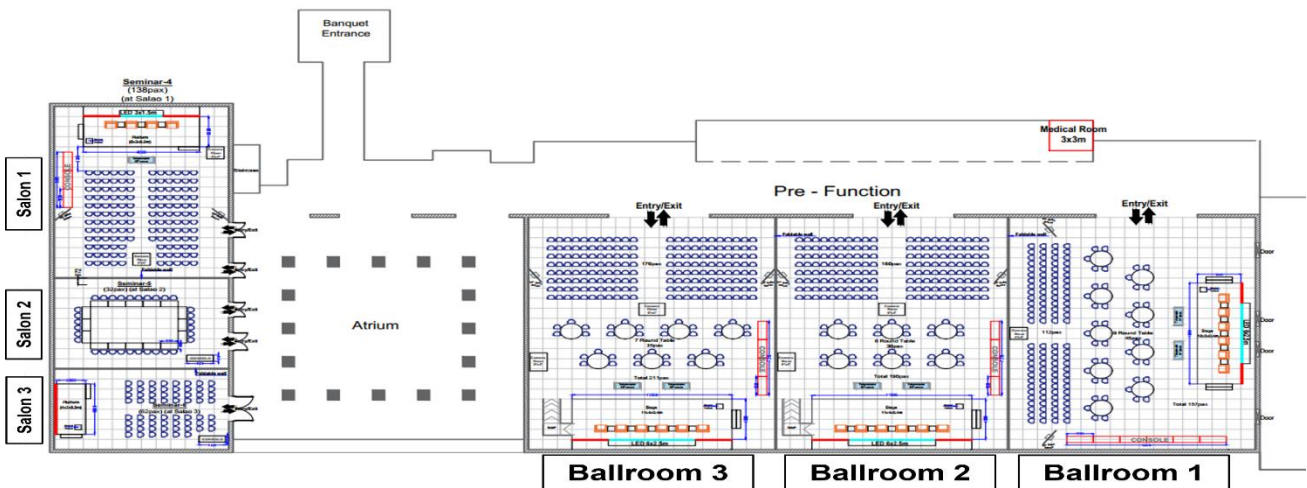


Figure 2 Floorplan Ground level, Grand Hyatt Hotel (Please note that this is a provisional layout/arrangement and may be subject to further change.)

2 DETAILED PROGRAMME

2.1 DAY 1 PROGRAMME, WEDNESDAY 19 JULY

07:30-09:00: REGISTRATION AND BADGING

All delegates are requested to register and collect their badge at the help desk of the Grand Hyatt Hotel. Delegates only need to register once for the duration of the event. Please note that the registration desk will open on 18th July 2023, 10:00AM to allow those who wish to register early.

09:00-18:00: TECHNOLOGY SHOWCASE

The Technology and Cultural Showcase is a special feature that all participants can attend in person. It will feature a *Vehicle Showcase*, consisting of interactive experiences including a zero-emissions vehicle display, as well as an *Innovation Showcase*, consisting of cutting-edge technologies displayed. There will also be a *Cultural Showcase* highlighting the rich cultural diversity of the state. It will take place throughout the day at the Dr. S.P. Mukherjee Indoor Stadium and participants can travel there by shuttle buses that will run at regular intervals from the Grand Hyatt Hotel. For more information, please contact: info@cem-mi-india.org.

09:00-10:30: SIDE EVENTS - ROUND 1

TRANSITION TOWARDS LOW-CARBON AFFORDABLE HEATING AND COOLING SOLUTIONS - THE WAY AHEAD (SALAO 1)

- **Category:** Energy Efficiency
- **Organizer:** Innovation community on Affordable Heating and Cooling of Buildings
- **Description:** This workshop is intended to deliberate the pathways and disruptive technologies for sustainable heating and cooling of buildings, identify synergies with other missions and operationalise international collaboration for the launch of a potential R&D program. A white paper on Sustainable Heating and Cooling Technologies: Trends and national priorities will be launched during the event.
- **Contact:** secretariat@mission-innovation.net , mi-india@gov.in

SCALING CLEAN ENERGY SOLUTIONS GLOBALLY: CLEANTECH EXCHANGE PLATFORM & THE GIGATON CHALLENGE (SALAO 3)

- **Category:** Innovation
- **Organizer:** Social Alpha (India)
- **Description:** India had announced a platform under Accelerate module for international scale-up of clean energy solutions with high impact and creating a network of incubators supporting solutions towards net-zero. The session will provide insights and update into the Cleantech Exchange Platform. The co-hosts will also announce a 'Gigaton Challenge' during the session, inviting incubators in other MI countries to present strategies for supporting startups demonstrating potential for achieving 1Gt of avoided emissions by 2030. This session will invite incubators and other agencies to share their strategies. The winners of the challenge will get a chance to showcase their solutions at COP28.
- **Contact** secretariat@mission-innovation.net; mi-india@gov.in

ENERGY COMPACTS: RAISING AMBITION IN SUPPORT OF SDG7 IN INDIA (BALLROOM 3)

- **Category:** Cross-Cutting
- **Organizer:** Sustainable Energy for All
- **Description:** The Energy Compacts – voluntary, trackable commitments – were launched by UN-Energy at the High-Level Dialogue on Energy convened by the UN Secretary-General in September 2021. The Energy Compacts are designed to spur action towards achieving net-zero while advancing universal energy access. Close to 200 commitments were submitted by governments, corporations, international organisations, philanthropies, and a range of other stakeholders towards achieving SDG7 and the clean energy transition. Several of these commitments came from India – from government agencies, private sector corporations, and civil society organisations– demonstrating the country’s alignment with the Secretary-General’s Global Roadmap for Accelerated SDG7 Action in support of the 2030 Agenda and net-zero emissions. This session will showcase the commitments that India has demonstrated through several ambitious Energy Compacts from government partners, private sector stakeholders, and multi-sector collaborations aimed at achieving SDG7 and a clean energy future.
- **Contact:** Divya Kottadiel, divya.kottadiel@seforall.org

TECHNOLOGY INNOVATION TO AND FROM EMERGING ECONOMIES: DEEP DECARBONISATION OF INDUSTRY (BALLROOM 2)

- **Category:** Industry Decarbonisation
- **Organizer:** MI Net-zero industries mission In cooperation with (tbd): i.e.
 - CEM IDDI
 - LeadIT
 - Breakthrough Steel & Cement
- **Description:** MI NZI will showcase in 50 demonstration plants technological solutions for decarbonisation of industry and reduce costs of these technologies. In this workshop they will provide for best Practice from industry or partner association to showcase successful technology transfer of no-regret technological solutions for net-zero industries. Further, to identify how technology transfer of innovative technologies can be facilitated, e.g. enablers and barriers and how the different initiatives in the field will collaborate, i.e. which stakeholders are needed to accelerate technology transfer and market uptake.
- **Contact:** Bernhard Gahleitner, bernhard.gahleitner@ait.ac.at

FINANCING CCUS (BALLROOM 1)

- **Category:** Industry Decarbonisation
- **Organizer:** CEM CCUS Initiative, Global CCUS Institute
- **Description:** Identifying and enabling finance solutions is vital for the large-scale deployment of carbon capture technologies. It is also important to identify the key elements of policy and risk sharing that will make CCUS attractive for banks. This roundtable session will bring together several representatives of the finance sector, governments and industry, to discuss challenges, business models and ways forward in risk-sharing, to accelerate CCUS financing. The roundtable will also seek to highlight the different roles that development finance institutions and commercial banks will play, and how they can better collaborate with governments. A particular concern is ensuring the capability of development finance institutions to continue their vital role in getting emerging economies ready to deploy CCUS projects. Steer from governments is critical in this regard.
- **Contact:** CASSANDRA ETTER-WENZEL, cassandra.etter-wenzel@cemsecretariat.org

10:30-10:45: TEA/COFFEE

Coffee and refreshments will be available.

10:45-12:15: SIDE EVENTS - ROUND 2

MOBILIZING SUSTAINABLE BIOMASS FEEDSTOCKS FOR FUTURE FUELS AND CHEMICALS (SALAO 1)

- **Category:** Clean Fuels
- **Organizer:** CEM Biofuture Platform Initiative, CEM Biofuture Campaign
- **Description:** If you can't measure it, then you can't improve it." Biomass is an abundant renewable resource that can be a sustainable source of carbon and hydrogen to the Net Zero Circular Economy. Concerns about the sustainable production and use of biomass feedstocks slow the needed expansion of appropriate uses of biomass to produce renewable fuels, chemicals, and materials. Likewise, uncertainty regarding the amount of biomass available for sustainable productive use reduces investor confidence in the future demand for bio-based products. Of particular interest is the climate mitigation roles for biomass. Confidence in carbon accounting of bio-based fuels, chemicals, and materials is essential for them to participate in obligatory and voluntary carbon markets. Two high-level panel discussions will be held to (1) support the launch of the Global Biofuels Alliance and (2) enable a more technical exchange in support of the CEO – Minister Biofuture Roundtable by affirming and increasing public and private sector commitment to the innovation, investment, and policy needed to fulfill the potential for bio-based fuels, chemicals, and materials to enable the Net Zero future. The panels will address the synergistic role of biomass with CCU and hydrogen for diverse applications, including fuels for aviation and shipping and the wide range of bio-based chemicals. Attention will be paid to the role that the Global Biofuels Alliance can play in advancing policy best practices particularly in the Global South.
- **Contact:** Jim Spaeth, jim.spaeth@ee.doe.gov



A GIGATONNE OPPORTUNITY AND THE 21ST CENTURY INNOVATION ECOSYSTEM: ACCELERATING GLOBALLY SUSTAINABLE 1.5C COMPATIBLE SOLUTIONS FOR A FUTURE WHERE 11 BILLION PEOPLE CAN LIVE FLOURISHING LIVES (SALAO 2)

- **Category:** Innovation
- **Organizer:** UNFCCC Global Innovation Hub (UGIH)
- **Description:** This event will present the results from last year's MI side event, including the latest tools and initiatives developed by Mission Innovation-Net-Zero Compatibility Initiative (MI-NCI) and Social Alpha in partnership with key stakeholders. The first cohort of stakeholders responding to the Gigaton Opportunity will also be presented. The MI-NCI platform hosts a toolbox to help identify, support, assess and accelerate the uptake of globally sustainable 1.5C compatible solutions for a future where 11 billion can live flourishing lives. As a leading tool developer in the area of avoided emission, based on assessment of more than 1000 innovations, and with a total potential to avoid more than 100 gigaton of GHG by 2030 with partners, the MI-NCI now play a leading role in the international work to support solution providers. 2023 can be seen as the first year avoided emission became mainstream, including the WBCSD guidelines for large companies, to the G7 summit acknowledging the importance of avoided emissions for the first time. The collaborations with UNFCCC Global Innovation Hub and ICLEI have also helped establish an expanded climate and innovation agenda as a new mainstream approach. At the session accelerated uptake of globally sustainable solutions will be in focus. The event will highlight collaborating partners and events, including ICLEI, UNFCCC, OECD all with a focus on the challenge launched by MI-NCI and Social Alpha at COP27, where stakeholders were asked to present gigaton strategies by COP28. The event will start the countdown towards COP-28 for the Climate Opportunity Challenge.
- **Contact:** Dennis Pamlin, dennis.pamlin@ri.se

ROLE OF NUCLEAR ENERGY IN THE CLEAN ENERGY WORKFORCE OF THE FUTURE: STRATEGIES & SOLUTIONS (PANEL DISCUSSION) (SALAO 3)

- **Category:** Power Sector
- **Organizer:** CEM NICE Future Initiative, CEM Clean Energy Solutions Center
- **Description:** This panel discussion will further help understand how nuclear energy plays a pivotal role in the clean energy mix in achieving the climate change goals set by countries along with its impact on workforce development ensuring justice, equity, diversity, and inclusion. This panel discussion will also help on how to effectively communicate the role of nuclear energy to non-nuclear audiences and how to successfully engage stakeholders including community members.
- **Contact:** Jal Desai, Jal.Desai@nrel.gov

DRIVING INNOVATION AND SCALING UP CARBON REMOVAL TECHNOLOGIES (BALLROOM 3)

- **Category:** Industry Decarbonisation
- **Organizer:** Saudi Arabia
- **Description:** The need for carbon removal technologies to combat climate change presents a unique opportunity for entrepreneurs and investors to create new business opportunities and value chains. As the demand for carbon removal solutions increases, entrepreneurs can capitalize on the opportunity to develop and scale innovative technologies that can remove carbon from the atmosphere. This presents a potential for new value chains to be created, from the development of new equipment and software to the establishment of new supply chains and business models. Investors can also play a vital role in driving innovation and scaling up carbon removal solutions by providing funding and resources to support research and development efforts. With the right

support, entrepreneurs and investors can help drive the growth of a new and vital industry focused on removing carbon from our atmosphere.

Contact: Ahmed AlJameel, Ahmed.Jameel@moenergy.gov.sa

HYDROGEN – THE NORDIC RALLY TO THE VALLEY AND NORDIC GREEN SAILING (BALLROOM 2)

- **Category:** Clean Fuels
- **Organizer:** Nordic Energy Research, MI Zero Emission Shipping
- **Description:** High level Panel Discussion with Nordic ministers and key stakeholders from the Nordic countries gathering and fostering dialogue between Academia/Research, Industry/Business and Governments/Regulators. The focus is on Hydrogen Valleys and ways to benefit from our strengths, possibilities, synergies and closer co-operation and technology transformation. The Nordic countries are frontrunners within deployment of renewable energy and development of clean hydrogen valleys. The dialogue will focus on so called Hydrogen Valleys, including production and transportation of hydrogen, e-fuels and new energy hubs in the Nordic Countries. Closer co-operation and knowledge sharing between the Nordic and other countries could speed up the rapid innovation and deployment, as well as showcase how to unlock the benefits of clean hydrogen as energy carrier for a global energy transformation.
- **Contact:** Anders Geertsen, Anders.Geertsen@nordicenergy.org

OPPORTUNITIES FOR ENERGY TRANSITION WITHIN THE AGRICULTURAL COLD CHAIN AND LOGISTICS SECTOR (BALLROOM 1)

- **Category:** Energy Efficiency
- **Organizer:** ADB, CLASP
- **Description:** Climate change (heat stress) and population growth is expected to have significant impact on how we store and distribute food. As demand for food increases, so will the demand for agriculture cold chain and logistics infrastructure. India's cold chain requires substantial investments and power supply to meet the country's needs. As the infrastructure is built out, it is important to ensure that it is energy efficient and relies on renewable energy. In order to address this pressing challenge, a panel discussion has been organized to explore the opportunities and challenges associated with transitioning towards a low-carbon and energy-efficient cold chain infrastructure, which encompasses the logistics network as well. The primary focus of the discussion will revolve around identifying technological advancements and policy frameworks that can effectively maintain the efficiency of services while concurrently reducing energy consumption and greenhouse gas (GHG) emissions. The panellists will delve into the significance of government policies, technology standards, and innovative financing tools, as key drivers to expedite the transition within the sector. Lastly, the dialogue aims to bring together various stakeholders, including representatives from the government, industry leaders, financing institutions, civil society organizations, and farmer co-operatives, to foster a comprehensive exchange of ideas and perspectives.
- **Contact:** Srishti Mahajan, Smahajan1.consultant@adb.org

12:15-13:15: LUNCH

A working lunch is provided to all delegates in the pre-function area.

13:15-14:45: SIDE EVENTS - ROUND 3

ACCELERATING NET-ZERO AMBITIONS THROUGH CLEAN HYDROGEN FOR DECARBONIZATION OF INDUSTRIAL VALUE CHAINS (SALAO 1)

- **Category:** Clean Fuels
- **Organizer:** IRENA, ISO, IEC, IPHE, AFID and MI
- **Description:** Less than a decade is left to secure a fighting chance for a 1.5°C world. To meet these commitments, the private sector and industries must be part of the efforts to pivot from fossil fuels to renewable energy sources and pursue widespread decarbonisation across all end-use sectors. While energy efficiency, electrification and renewables can achieve 70% of the mitigation needed, hydrogen will be needed to decarbonise end uses where other options are less mature or more costly, such as heavy industry, long-haul transport and seasonal energy storage. Moving toward green hydrogen-based heavy industries would require a major technological shift in their core industrial processes. Historically, such shifts have occurred because of major economic gains enabled by technological innovation. There is no time to wait for green hydrogen technology to become cost-competitive with current technologies, due to the urgency of taking climate action and the fact that hard-to-abate sectors are only one investment cycle away from 2050. The change must be accelerated, through policies, regulations, and standards in order to drive investments in this direction.
- **Contact:** Zafar Samadov, zsamadov@irena.org

COLLABORATION TO ADVANCE GLOBAL ACTION ON CLIMATE FRIENDLY COOLING (SALAO 2)

- **Category:** Energy Efficiency
- **Organizer:** Natural Resources Defense Council (NRDC), BEE
- **Description:** The aim of the proposed side event is to bring together other heat stressed countries: a) To deliberate on barriers and solutions to scale preparedness plans, response strategies to heat and solutions for efficient and climate friendly cooling in heat stressed, developing countries b) To discuss options for collaborating and identify specific action points in the global agenda that will highlight cooling and heat resilience and c) Develop a joint global agenda for climate friendly cooling aligned with the LiFE campaign. Expected event outcome: the side event will help identify a clear global ask on climate friendly cooling from heat stressed countries and explore opportunities for a joint global collaborative effort on cooling such as a Global Cooling Hub, LiFE for environment friendly cooling campaign and others. The side event can serve as a way to bring these countries together to brainstorm on what is needed to implement solutions at scale in countries such as India.
- **Contact:** Prima Madan, pmadan@nrdc.org

POLICY AND FINANCING FOR A JUST AND INCLUSIVE ENERGY TRANSITION AT THE SUB-NATIONAL LEVEL IN INDIA (SALAO 3)

- **Category:** Power Sector
- **Organizer:** iForest
- **Description:** Global experiences of key energy economies suggest that well-defined policies and plans at the national and sub-national levels are crucial to ensure a well-managed just energy transition and mobilize necessary financing for it. Considering the context-specific nature of the transition, the role of state governments is vital for developing just energy transition plans, detailing out financial needs and investment plans, stakeholder coordination and capacity building, and working with the national government to achieve climate change, energy transition and development goals. This session will bring together high-level state government officials, representing ministries/departments relevant for a just and inclusive energy transition, and the Government appointed Just Transition Taskforce of Jharkhand, financial institutions, and concerned agencies to deliberate on a Just and Inclusive Energy Transition at the sub-national level.
- **Contact:** Chinmayi Shalya, chinmayi@iforest.global

THE ROAD TO COP28: DELIVERING THE BREAKTHROUGH AGENDA PRIORITY ACTIONS AND LOOKING FORWARD TO THE 2023 BREAKTHROUGH AGENDA REPORT (BALLROOM 3)

- **Category:** Cross-cutting
- **Organizer:** UK government, Breakthrough Agenda Team
- **Description:** In this Global Stocktake year, it is imperative that we are taking rapid, and unified action to keep 1.5° goal alive. This event, in partnership with the COP28 Presidency, will showcase the progress being made against the Breakthrough Agenda's Priority Actions, and the importance of this delivery to a successful outcome at COP28. This event will also be an opportunity to showcase how the delivery of these Priority Actions is benefiting from, and is synergistic with, the excellent work of CEM and MI. The Breakthrough Agenda Report 2023 is due for publication in September 2023, and will: Provide an overview of progress in each sector. Provide an assessment of the state of collaboration & progress made, particularly in the recommendations from the 2022 report. Make the case for strengthened additional international collaborative action in accelerating progress towards those goals. Make detailed recommendations on where and how to strengthen international collaborative action. This event is an opportunity to hear, and feedback on the emerging findings of the report, and discuss how these emerging findings can influence the work being done by the clean energy community.
- **Contact:** Edwards, Stephanie, Stephanie.Edwards@beis.gov.uk

BUILDING RESILIENT SOLAR SUPPLY CHAINS: REPORT LAUNCH AND PATH FORWARD (BALLROOM 2)

- **Category:** Power Sector
- **Organizer:** CEM Transforming Solar Initiative, ISA, Bequerel institute
- **Description:** To achieve net zero and energy access goals, Solar PV installations must increase from ~250 GW per year to over 1000 GW per year by 2030. Solar PV supply chains however remain heavily concentrated with a limited number of regions manufacturing solar at scale. This event will launch ISA's report on Building Resilient Global Solar Supply Chains as part of the Transforming Solar Supply Chains CEM workstream. The authors Becquerel Institute will present the key findings and results and the International Solar Alliance will discuss the steps forward to building solar supply chains in different regions of the world. In the second half of the event, there will be a panel discussion, led by ORF America, on next steps for policy to promote regional supply chains, including cross-border trade, supportive manufacturing policy, technology transfer and standards harmonization. There will be representations from different regional perspectives.
- **Contact:** Alexander Hogeveen Rutter, Alex.HogeveenRutter@isolaralliance.org

THE GLOBAL CARBON MANAGEMENT CHALLENGE (BALLROOM 1)

- **Category:** Industry Decarbonisation
- **Organizer:** CEM CCUS Initiative, United States government
- **Description:** At the Major Economies Forum meeting in April 2023, the US President Joe Biden invited countries to join a global "Carbon Management Challenge". The Challenge intends to catalyse action by the global community to ramp up Carbon Capture, Utilisation and Storage, and Carbon Dioxide Removal technologies to gigatonne-scale by 2030. The details of the challenge will be worked out during the coming months, with an official announcement intended for COP-28.
- **Contact:** Juho Lipponen, juho.lipponen@cemccus.org

14:45-15:00: TEA/COFFEE

Coffee and refreshments will be available.

15:00-16:30: SIDE EVENTS - ROUND 4

MEASUREMENT, REPORTING AND VERIFICATION (MRV) FOR CARBON DIOXIDE REMOVAL (CDR) – OPPORTUNITIES FOR COLLABORATION (SALAO 2)

- **Category:** Industry Decarbonisation
- **Organizer:** United States Department of Energy & CDR Launchpad Members
- **Description:** This workshop brings together the CDR Launchpad and other interested parties to discuss CDR MRV technology needs and opportunities for collaboration. It will highlight the key priorities for technical pathways of focus, where there are gaps in LCA data, and how collaborative R&D can help fill these gaps.
- **Contact:** secretariat@mission-innovation.net , mi-india@gov.in

SHAPING THE FUTURE OF ENERGY SYSTEMS: STRATEGIC AGENDA OF THE LONG-TERM ENERGY SCENARIOS (LTES) INITIATIVE (SALAO 3)

- **Category:** Cross-cutting
- **Organizer:** CEM Long-Term Energy Scenarios Initiative, IRENA
- **Description:** The CEM14 will officially mark the LTES Initiative's 5-year anniversary. Throughout this period, the Initiative has facilitated countless discussions between governments and experts to improve how governments develop and use long-term energy scenarios to accelerate the clean energy transition. The energy landscape has rapidly evolved over these past five years, and so have the priorities of government scenario practitioners. The challenges and uncertainties continue to evolve and transform, and the LTES Initiative aims to keep government planners informed of these changes to better support their country's transition. The CEM14 platform in Goa, India will provide the ideal space and breadth of expertise for the LTES and the wider CEM community to discuss the global strategic agenda and the specific regional challenges for national scenario development and what future pathways could and should represent at this stage of the energy transition. These discussions will also pave the way for the LTES Initiative to continue addressing current issues that government planners and policymakers face when envisioning the future energy system. The panel discussion will feature high-level representatives from LTES member countries or technical partners, energy experts, and key stakeholders who will discuss technical aspects such as scenario development, coordination, stakeholder engagement, modelling, policy and regulatory frameworks, financing and investment, and technology innovation and deployment.
- **Contact:** Juan José Garcia, JGarciaMendez@irena.org

MISSION EFFICIENCY ROUNDTABLE – ENERGIZING ENERGY EFFICIENCY WITH A MARKETPLACE (BALLROOM 3)

- **Category:** Energy Efficiency
- **Organizer:** Sustainable Energy for All (SEforALL)
- **Description:** A roundtable is organized by Mission Efficiency and SEforALL to find energy efficiency gaps and collaboration opportunities with CEM initiatives and campaigns. Mission Efficiency is an energy efficiency ecosystem that facilitates dialogue, fosters coordination and cooperation and encourages the exchange of expertise, ideas and resources to increase energy efficiency finance. The Mission Efficiency Marketplace is a one-of-a-kind platform where finance providers, governments, development partners and organizations come together to create investment-grade projects. Knowledge, de-risking instruments, business models and best practices are leveraged through Mission Efficiency marketplace, reducing the cost and the complexity of energy efficiency finance, leading to a shift in the risk appraisal of projects. The Mission Efficiency Marketplace complements several CEM initiatives and campaigns with a financial platform that can increase investment for efficient appliances and equipment, electric vehicles, energy efficiency projects, efficiency projects in industry and distribution. This is expected to create new markets, skills and jobs aligned with a just clean energy transition.
- **Contact:** Brian Dean, Brian.Dean@seforall.org,

NEW TECHNOLOGIES AND POLICIES FOR A NET-ZERO BIOFUTURE, (BALLROOM 2)

- **Category:** Clean Fuels
 - **Organizer:** CEM Biofuture Platform Initiative, CEM Biofuture Campaign
 - **Description:** This workshop aims to highlight areas where innovation and policy are still needed to overcome the technology challenges necessary to accelerate the development of sustainable liquid biofuels and bio-based chemicals. Attention will be paid to the synergistic roles of CCUS and hydrogen in realizing a Net Zero Circular Economy, and to de-fossilizing hard-to-abate sectors including aviation, shipping, and bio-based chemicals. Focus will also be paid to the role that the Global Biofuels Alliance can play in advancing policy best practices particularly in the Global South. Questions to be addressed:
 - What innovations are needed and what are the key technological challenges for scaling up sustainable liquid biofuels for aviation and maritime?
 - How can CEM and MI members support de-fossilizing aviation and maritime transport?
 - How can CEM and MI members support de-fossilizing the chemicals sector?
 - What actions are needed for increased RD&D investments?
 - What joint actions can the Global Biofuels Alliance catalyse to accelerate the production and use sustainable bio-based fuels, chemicals, and materials?
 - How collaborating organisations including industry, national governments and CEM/MI members can support for the success of decarbonising aviation sector?
- Contact:** Jim Spaeth, jim.spaeth@ee.doe.gov

ENHANCING SUB-NATIONAL COMMITMENTS TO CLEAN ROAD TRANSPORT TRANSITIONS (BALLROOM 1)

- **Category:** Mobility
- **Organizer:** WRI (India), RMI
- **Description:** Thirty-three states in India have announced their EV policies, outlining ambitions towards transport decarbonization. While the national EV policy framework in India provides demand incentives and encourages manufacturing, states have the policy and implementation levers essential for uptake. This session will be the first of its kind at CEM to initiate sub-national cooperation for EV transitions, while emphasizing the need for a robust national policy framework to enable this. It will enable peer-to-peer engagement between sub-national actors with a focus on the Global South, to enhance their ambitions towards e-mobility development. It will highlight innovative policy mechanisms, partnerships and business models at the state level to transition different segments, emphasizing the importance of the 2W/3W transition for countries in South Asia, Southeast Asia and Africa. States in India will present their achievements and ambitions, and exchange best practices with international colleagues to enable investments and unlock market transformation for e-mobility.
- **Contact:** Chaitanya Kanuri, chaitanya.kanuri@wri.org,

16:30-16:45: TEA/COFFEE

Coffee and refreshments will be available.

16:45-18:00: SIDE EVENTS - ROUND 5

ENABLING A GLOBAL TRANSITION TO ZERO-EMISSION VEHICLES (SALAO 1)

- **Category:** Mobility
- **Organizer:** ZEV Transition Council, United Kingdom
- **Description:** The transition to Zero-Emission Vehicles (ZEVs) is accelerating globally, bringing with it a wealth of benefits – such as cleaner air, economic growth, jobs, reduced greenhouse gas emissions and reduced oil dependence, amongst others. Despite progress, however, more needs to be done to ensure the transition is both Paris-aligned and happening equitably across all countries and regions. This event will discuss and highlight action being driven forward by the international community to do this, including work by the ZEV Transition Council who are working alongside partners – including industry – to strengthen financial and technical support for Emerging Markets and Developing Economies. The event will also spotlight the COP27-launched ZEV Country Partnership with India, showcasing collaboration in action as well as a partnership model that could potentially be replicated in other markets.
- **Contact:** Emma McCarthy, Emma.McCarthy@beis.gov.uk

PANEL DISCUSSION ON AN ECONOMY-WIDE QUANTIFIED GOAL ON ENERGY EFFICIENCY IN INDIA (SALAO 2)

- **Category:** People
- **Organizer:** TERI
- **Description:** While renewable energy takes up a chunk of the public narrative space on clean energy transitions, it is imperative need to create a similar understanding of energy efficiency. An economy-wide quantified energy efficiency goal beyond energy intensity could be a driving factor to provide further momentum on energy efficiency measures, innovations along with public discourse. The roundtable will discuss concepts and practices on economy-wide quantified goal/s for energy efficiency and implications for G20. The aim is to come up with specific proposals for G20 regarding energy transitions and energy efficiency as one of the key components of SDG 7.
- **Contact:** Sonali Mathur, sonalim@teri.res.in

ACCELERATING CIRCULAR CARBON ECONOMY TRANSITION IN DIVERSE COUNTRY CONTEXTS (BALLROOM 3)

- **Category:** Clean Fuels
- **Organizer:** KAPSARC, Saudi Arabia
- **Description:** The Circular Carbon Economy (CCE) is a flexible and inclusive framework, initially endorsed by G20 leaders in 2020. The CCE enables a holistic assessment of energy and emission management technologies that can support the design of net-zero emission pathways adapted to countries' national circumstances, resource endowments, and competitive advantages. The CCE Index quantifies progress and potential with a set of shared indicators in diverse country contexts. The Index serves as a tool for identifying cross-country transition gaps and enabling dimensions to set the stage for policy discussions and collaboration. This panel will identify transition progress and potential using the CCE Index to compare different country contexts. Unique national circumstances require differentiated approaches to eliminate emissions, with international cooperation crucial for success. The panel will provide an overview of regional and country-level CCE transition gaps, then highlight urgent action areas and best practices for planning net-zero pathways from diverse country experiences.
- **Contact:** Hisham Hassnan, Hisham.Hassnan@moenergy.gov.sa

SOLAR SUPPLY CHAINS: CONSIDERATIONS FOR POLICYMAKERS; ROUNDTABLE ON POLICY BRIEFS AND PANEL ON TRACEABILITY SCHEMES IN THE US AND EU (BALLROOM 2)

- **Category:** Power Sector
- **Organizer:** IRENA
- **Description:** The first half of this side event will feature a roundtable discussion on three new policy briefs produced by the Transforming Solar: Supply Chains workstream, which was launched at CEM13 in September 2022. The initiative has convened numerous workshops on solar manufacturing around the world, hosted a number of webinars and online conversations, and commissioned a report that will be released at CEM14, “Building Resilient Global Solar Supply Chains.” The topics of the policy briefs are: policy coordination, technology transfer, and ESG standards harmonization. The second half of the side event will be a moderated panel regarding ongoing efforts by private sector organizations in the EU and the United States to enhance global solar supply chain traceability.
- **Contact:** Ute Collier, ucollier@irena.org

YOUTH RISE FOR NICE FUTURE: A NUCLEAR ENERGY YOUTH FAIR (BALLROOM 1)

- **Category:** Power Sector
- **Organizer:** CEM NICE Future Initiative, CEM Clean Energy Solutions Center
- **Description:** Nuclear energy is an important contributor to the global clean energy supply. It is not only a primary source of emissions-free energy, but it also enables other clean energy sources. Recently, nuclear has drawn much attention due to the phasing out of coal power and the emerging energy crisis. The global youth population has emerged as a particularly vocal pro-nuclear voice. Ensuring the clean energy workforce of tomorrow requires us to engage of the youth of today, and for all generations to be aware of nuclear energy and its role in the global energy mix. While there is a plethora of knowledge on Nuclear Energy that needs to be demonstrated, there are organizations that can communicate this knowledge effectively that a young person or non-nuclear audience can understand. Therefore, we aim to bring together several organizations that are working actively in the nuclear energy space in an awareness session. This session would include exhibits that showcase knowledge-sharing materials related to nuclear energy to include virtual reality, crafts and games. This will be a wholesome learning experience for anyone new to Nuclear Energy concepts and how nuclear and renewables can be integrated.
- **Contact:** Jal Desai, Jal.Desai@nrel.gov

2.2 DAY 2 PROGRAMME, THURSDAY 20 JULY

07:30-09:00: REGISTRATION AND BADGING

All delegates are requested to register and collect their badge at the help desk of the Grand Hyatt Hotel. Delegates only need to register once for the duration of the event.

09:00-18:00: TECHNOLOGY SHOWCASE

The Technology and Cultural Showcase is a special feature that all participants can attend in person. It will feature a *Vehicle Showcase*, consisting of interactive experiences including a zero-emissions vehicle display, as well as an *Innovation Showcase*, consisting of cutting-edge technologies displayed. There will also be a *Cultural Showcase* highlighting the rich cultural diversity of the state. It will take place throughout the day at the DR. S.P. Mukherjee Indoor Stadium and participants can travel there by shuttle buses that will run at regular intervals from the Grand Hyatt Hotel. For more information, please contact: info@cem-mi-india.org.

09:00-10:30: SIDE EVENT - ROUND 1

ACCELERATING REGIONAL AND GLOBAL ENERGY INTERCONNECTION TO MEET THE GLOBAL CLEAN ENERGY DEPLOYMENT AND CLIMATE GOAL (SALAO 1)

- **Category:** Power Sector
- **Organizer:** CEM RGEI Initiative
- **Description:** Regional and Global Energy Interconnection is central to rapid implementation of ambitions across the CEM community and more broadly. Multiple work streams and related collaborative efforts work on various aspects of power system transformation. This side event will highlight multiple perspectives and delivered coherent insights to CEM stakeholder communities, attending audiences, and the press regarding key efforts the CEM community is leading to advance implementation, raise ambition, and accelerate deployment of low carbon solutions.
- **Contact:** Zheng Zhu, zheng-zhu@geidco.org

THE 24/7 CLEAN ENERGY ACCELERATOR (SALAO 2)

- **Category:** Power Sector
- **Organizer:** GWEC, SE4ALL
- **Description:** The “24x7 Clean Energy Accelerator” official 14th CEM/MI-8 side event marks the first step towards establishing a “24/7 Clean Energy Accelerator” CEM workstream in 2024. This event will convene interested parties and signatories of the UN 24/7 Carbon Free Energy Compact, (energy buyers, energy suppliers, governments, system operators, solutions providers, investors), and the key global private and public sector stakeholders behind this prospective CEM workstream, aligned to:
 - Accelerate grid decarbonization at the global level - Increase transparency and confidence in energy procurement
 - Incentivise new build renewable projects, innovation, and flexibility
 - Unlock 24/7 carbon accounting and reporting
 - Building on the current momentum in Europe, the US, Asia-Pacific, and India’s ‘Round-the-Clock’ tenders, this event represents a decisive moment for increasing even further the internationalization of 24/7 Clean Energy. It will be one of the first steps in establishing a global coalition for high-impact corporate sourcing coordinated by GRA and will build on the 24/7 Carbon-free Energy Compact commitment to the United Nations.
- **Contact:** Martand Shardul, martand.shardul@gwec.net

CEM ISGAN – MI GPFM COLLABORATION FOR POWER SYSTEM TRANSFORMATION, WITH SPECIAL FOCUS ON POLICY AND PRIVATE SECTOR ENGAGEMENT (SALAO 3)

- **Category:** Power Sector
- **Organizer:** CEM ISGAN, MI GPFM
- **Description:** The event will showcase collaboration between ISGAN and GPFM, as well as the importance of private sector engagement. It will start with opening remarks by HoD(s) and CEM secretariat and will include 1-2 keynotes by IEA and/or IRENA. GPFM and ISGAN aim to release joint documents on grid-related hot topics, showcasing the collaboration following to the MoU signature at CEM13/MI-7 in Pittsburgh. During the event GPFM will showcase progress and foreseen activities on FP1 “5 demos in five continents” and FP2 “Multilateral Research Programme”. In particular, GPFM will release the “FP1 5 demos in five continents: National Pilots Report”. ISGAN will present its last outcomes and will release the KSP workshop/Inter-Working Groups docs. In the second part, the event will bring together CEOs/CTOs and Minister-level/Senior Officials in a collaborative environment to express their thoughts, opinions, and perspectives for advancing private sector engagement. The event will also feature a spotlight on India in view of the Asian demonstration projects launching.
- **Contact:** Luciano Martini, Luciano.Martini@rse-web.it

IGNITING CHANGE: BREAKING DOWN BARRIERS TO GENDER EQUALITY (BALLROOM 3)

- **Category:** Cross-cutting
- **Organizer:** CEM Equality Initiative
- **Description:** This session will focus on the pivotal role of women in driving a just, equitable, and inclusive clean energy transition. Key stakeholders from governments, businesses, financial institutions, youth and civil organizations will convene to highlight the importance of national and international cooperation in combating gender disparity. Experts will share persistent challenges and effective strategies for reducing barriers for women in energy workforces. The event will showcase how collaborative platforms, such as the Equality in Energy Transitions Initiative, accelerate the deployment of gender-responsive and sustainable climate solutions and bridge the gap between different stakeholders by providing concrete actions to contribute to the decarbonization of our economies and societies. Following the session, there will be a networking opportunity where participants can connect with speakers and fellow attendees and engage in meaningful discussions, fostering potential collaborations and mentoring relationships.
- **Contact:** Azadeh Badieijaryani, azadeh.badieijaryani@oegut.at

EFAST INDIA – DRIVING ZERO EMISSION FREIGHT IN INDIA (BALLROOM 2)

- **Category:** Mobility
- **Organizer:** India (NITI Aayog), WRI (India)
- **Description:** India's EV market is expected to expand at a compounded annual growth rate (CAGR) of 49% between 2021-2030, with the segment's volumes set to cross annual sales of 17 Mn units by 2030. India boasts the 4th largest trucking market worldwide, expected to expand fourfold by 2050, addressing the freight sector's emissions becomes crucial for achieving climate, energy transition, and energy security objectives. NITI Aayog has launched the eFAST India (Electric Freight Accelerator for sustainable Transport in India) platform. This initiative aims to unite the diverse stakeholders of the freight ecosystem, creating visibility for future demand of medium and heavy-duty (MHD) electric freight vehicles, attracting investment for technological and infrastructure development. The platform seeks to drive the large-scale deployment of electric trucks by strengthening collaboration of policymakers, OEMs, logistics service providers, infrastructure providers, and financiers. To accelerate freight electrification in India, a dedicated event will be held alongside the Clean Energy Ministerial meeting. This event will bring together public authorities and global and domestic industry leaders, with a focus on announcing specific actions taken by the E-FAST India partners. The event will concentrate on three key areas:
 1. Scalable pilot solutions, including mechanisms for demand aggregation.
 2. Technological innovations and solutions, particularly advancements in battery technology and charging infrastructure.
 3. Policy measures that incentivize and support the industry-led transition to electric freight. By addressing these crucial aspects, the event aims to expedite the adoption of electric trucks and pave the way for a sustainable, low-emission future in the freight sector. India's proactive approach to freight electrification underscores our commitment to achieving the Net Zero goal.
- **Contact:** Sharvari.Patki, Sharvari.Patki@wri.org

SEAD: LARGE SCALE DEPLOYMENT OF SUPER-EFFICIENT APPLIANCES FOR COOLING & CALL TO ACTION PROGRESS (BALLROOM 1)

- **Category:** Energy Efficiency
- **Organizer:** CEM SEAD Initiative, IEA
- **Description:** CEM's SEAD Initiative brings together governments, manufacturers, and other organizations to rapidly accelerate the energy efficiency of appliances. This event will focus on accelerating the pace and scale of cooling solutions through collaboration, shared strategies and progress on the SEAD [Product Efficiency Call to Action](#). The session will be broken into two panels, the first providing deep-dives into SEAD member governments' current and planned cooling policies, and the second dedicated to showcasing progress for the Call to Action.
- **Contact:** Clara Camarasa, clara.camarasa@iea.org

10:30-10:45: TEA/COFFEE

Coffee and refreshments will be available.

10:45-12:15: SIDE EVENT - ROUND 2

SPOTLIGHT ON GPFM: TOWARDS 5 DEMOS IN FIVE CONTINENTS (SALAO 1)

- **Category:** Power Sector
- **Organizer:** Ricerca sul Sistema Energetico
- **Description:** During the event GPFM will showcase progress and foreseen activities on the Flagship Project: FP1 "5 demos in five continents". Moreover, GPFM will make the pre-announcement for the 2023 open call supporting FP2 "Multilateral Research Programme". Thus, providing an overview on the main progress for the GPFM Flagship Projects launched at the GCEAF in Pittsburgh in September 2022. In particular, the Mission will release the "FP1 5 demos in five continents: National Pilots Report" that collects relevant information about several National Pilots that will constitute FP1 continental demo projects. The event will also be an opportunity to present GPFM innovation strategy and the main ongoing and foreseen activities towards power systems decarbonization.
- **Contact:** secretariat@mission-innovation.net , mi-india@gov.in ,

MAYORS-MINISTERS DIALOGUE: FUTURE-PROOFING URBAN INFRASTRUCTURES (SALAO 2)

- **Category:** Cross-cutting
- **Organizer:** Global Covenant of Mayors for Climate and Energy
- **Description:** Cities are home to more than half of the global population and account for more than 70% of final global energy consumption and these figures are expected to rise. The energy challenge is an urban challenge, and cities are essential to achieve a sustainable transition to a climate neutral, resilient world. This high-level dialogue discusses how to accelerate the uptake of innovative urban infrastructure solutions, through holistic approaches that can respond to complex cities' needs to build, operate, and maintain sustainable infrastructures. National and local government leaders exchange on opportunities, challenges, and ways forward to mainstream climate considerations in investments and development of infrastructures in cities - from buildings, network infrastructures to urban assets. The session showcases National strategies that inform and facilitate the removal of barriers to implementation, and cities' successes in spearheading innovation, supporting national goals through effective multilevel relationships, and by working with institutional and private sector investors to stay the course set by the Paris Agreement. This dialogue helps channel the voice of cities and communities worldwide, informing and influencing the scope and pace of clean energy innovation, providing a platform to exchange on:
 - Driving ambition: removing barriers to implementation of systemic innovations in partnership with and across all levels, to reach net-zero
 - Delivering on commitments: increasing investment potential and accelerating financial flows and market opportunities for the implementation of smart, sustainable, integrated infrastructures
 - Leveraging innovation: tapping cities' potential as solutions providers, working together to close the gap between research, development and deployment of solutions
- **Contact:** Giorgia Rambelli, grambelli@globalcovenantofmayors.org

DECARBONISING THE GLOBAL CEMENT SECTOR WITH CARBON CAPTURE (SALAO 3)

- **Category:** Industry Decarbonisation
- **Organizer:** CEM CCUS Initiative
- **Description:** The cement sector is responsible for around 7% of global CO₂ emissions, and capturing CO₂ from cement manufacture is a critical technology to reduce process-related emissions. This panel discussion will bring together ministers and CEOs to discuss how carbon capture can be accelerated in the cement sector, where it is a vital decarbonization lever. Driving CCUS in the cement sector requires policy support, infrastructure build-out and novel financing mechanisms. Examples of policy approaches and projects will be given, to disseminate best practice to the whole CEM community. CEM CCUS Initiative and the Global Cement and Concrete Association, who unveiled a collaboration declaration at CEM-13 in Pittsburgh, will also update the wider CEM community of progress achieved so far and envisaged next steps.
- **Contact:** Juho Lipponen, juho.lipponen@cemccus.org

SUSTAINABLE COOLING FOR A JUST AND EQUITABLE ENERGY TRANSITION, (BALLROOM 3)

- **Category:** Energy Efficiency
- **Organizer:** UN Environment Program, India
- **Description:** Sustainable cooling is essential for meeting climate and Sustainable Development Goals (SDGs), or what is increasingly discussed as a "sustainable, just and equitable energy transition". For the 736 million people living in extreme poverty and the roughly similar population without access to electricity, this represents a great challenge – one increasingly recognized and becoming a subject for climate finance. The importance of sustainable cooling as a condition for the SDGs and climate goals appears belatedly to be receiving the attention it deserves. But with the clock ticking on the SDGs and a closing window for meeting the Paris climate goals, we have to move faster. This means rapidly scaling up investment in innovative cooling technologies and business models that make lifesaving cooling solutions affordable for all - and sustainable for the planet. In a warming world, we cannot deliver a sustainable, just and equitable energy transitions without them. Presenting the latest data from [Chilling Prospects 2023](#), this session organized by UNEP-led Cool Coalition and SEforALL, will bring together government representatives, private sector representatives, and philanthropies to showcase best practices to date and what is needed to accelerate climate finance for access to cooling.
- **Contact:** Lily Riahi, lily.riahi@un.org

STRATEGIES TO IMPROVE EV CHARGING INFRASTRUCTURE BUILDOUT, ACCESS, AND GRID INTEGRATION (BALLROOM 2)

- **Category:** Mobility
- **Organizer:** CEM Electric Vehicle Initiative, IEA
- **Description:** A continued successful deployment of electric vehicles requires sufficient and reliable charging infrastructure. IEA's analysis shows that both slow and fast charging is experiencing an upswing in 2022 but still needs lots of attention as the number of EVs on the roads increase. Each country has their own circumstances, but planning successful deployment of charging infrastructure is a challenge all governments have in common, for example translating national policies into regional and local action. A charging infrastructure roll-out strategy is not only about the number of charging points deployed, it is also where those are located, how many people they serve, and ensuring enough grid capacity and coordination to support their use. EVI members are willing to take the lead on raising further awareness and knowledge around the topic of charging infrastructure and grid integration, with CEM14 being a milestone. This event will be part of the ZEVWISE series, a collaborative of several governments and international organisations and initiatives. As part of the ZEVWISE series, the materials presented will be available to a wider audience, tied in with efforts to decarbonize the commercial vehicle sector, and part of a larger commitment to sharing resources on how to move forward on the ZEV Transition.
- **Contact:** Per-Anders Widell, PerAnders.WIDELL@iea.org

CETP – A EUROPEAN APPROACH TO AN INTERNATIONAL COOPERATION FOR THE CLEAN ENERGY TRANSITION (BALLROOM 1)

- **Category:** Innovation
- **Organizer:** Clean Energy Transition Partnership
- **Description:** High Level Panel Discussion with key stakeholders from the CETP Transition Initiatives (TRI). The High Level Panel Discussion will discuss the importance of international cooperation and projects in addressing the Mission Innovations. The CETP Joint Call are for the 2023 call modules planning to foster even more cooperation by implementing call modules that directly addresses the mission innovations. Research and innovation are at the heart of Mission Innovation. The ambition of the CETP is to multiply the budgets and international collaboration efforts in funding the development and implementation of technologies and solutions, which are essential to address the climate crisis. Many of the CETP partners are involved in multiple of the mission innovations – however it is crucial that the work of the CETP is spread around the world so knowledge is shared and that new partners can participate in the contributions of the CETP. The CETP are gathering and fostering dialogue between Academia/Research, Industry/Business and Governments/Regulators for potential projects to contribute to the MI GPFM, Clean Hydrogen and Net-Zero Industries Mission. The focus of the High Level Panel Discussion is how the CETP helps establishing an effective collaboration towards the modernization of the energy system.
- **Contact:** secretariat@mission-innovation.net, mi-india@gov.in

12:15-13:15: LUNCH

A working lunch is provided to all delegates.

13:15-14:45: SIDE EVENT - ROUND 3

ZEVWISE: ZERO-EMISSION TRUCKS AND THE ENERGY SECTOR: BRIDGING THE INFRASTRUCTURE GAP AND FINANCING THE TRANSITION (SALAO 1)

- **Category:** Mobility
- **Organizer:** CEM Drive to Zero Campaign, Netherlands
- **Description:** This side event focuses on the much-needed cooperation between the transport and energy sector. These sectors need to be aligned in order for the transition to zero emission heavy duty vehicles to accelerate. Zero-emission (ZE) technology for trucks and buses is ready for most applications, with a total cost of ownership parity with diesel being within reach between now and early 2030s. This provides a huge opportunity for which a timely rollout of the charging infrastructure is pivotal: without it nothing moves. Shippers and fleet owners require the operational security of a fitting and well powered charging network to switch to ZE vehicles as well as good cooperation between business, utilities and governments. This side event will address the key levers for a timely delivery of adequate charging infrastructure as well as key contributions the respective actors in the energy and transport domains can make and how the rollout can be financed. Furthermore, the session will explore specific challenges for emerging economies. This session is part of ZEVWISE, a series of events on zero-emission trucks and buses, launched at Transforming Transportation and International Transport Forum. ZEVWISE works on the common goal of accelerating the global transition towards 100 percent zero-emission sales of new trucks and buses by 2040. This side event reflects the collaborative roles of strategic players in the energy and transport domains and opportunities to accelerate the transition.
- **Contact:** Stephanie Kodish, skodish@calstart.org

MISSION INNOVATION THINK TANK: STRENGTHENING CLEAN ENERGY INNOVATION POLICY, PROGRAMS AND COLLABORATIONS THROUGH KNOWLEDGE SHARING (SALAO 2)

- **Category:** Innovation
 - **Organizer:** MI Insights Module, IEA, IRENA
 - **Description:** Through the endorsement of the Track and Review Framework at MI-7 in Pittsburgh, MI members have committed to strengthen capability in evidence-based innovation policy through knowledge sharing. To deliver on this commitment, the MI Secretariat is launching the MI Think Tank process, to deliver a programme of member-driven webinars, knowledge exchange sessions and case studies throughout the year. The MI Think Tank will be a process for sharing knowledge and good practice approaches on cross-cutting issues related to the successful design and implementation of clean energy innovation policies, programs, and collaborations. The Think Tank will be open to MI Members, Missions, and Innovation Communities, collaborating organizations and those interested in exchanging knowledge with the MI Community and beyond. In particular, the Think Tank will also strengthen complementarities with the knowledge sharing activities advanced by the IEA, OECD, and IRENA. Objectives of the side event – this side event will:
 1. Launch the MI Think Tank process, including the 2023 Think Tank Call for Expressions of Interest – which will call on members of the MI Community to help shape the Think Tank’s activities in 2023 by contributing to Think Tank events.
 2. Identify and discuss priority cross-cutting clean energy innovation topics for further examination through the MI Think Tank in 2023, inviting participants to share their perspectives and feedback on topics of interest.
- Contact:** Patrick McCauley, patrick.mccauley@NRCan-RNCan.gc.ca

ENABLERS FOR AN ACCELERATION OF CLEAN HYDROGEN PRODUCTION AND UPTAKE (SALAO 3)

- **Category:** Clean Fuels
- **Organizer:** UNIDO, IRENA, IDOS, RMI
- **Description:** IRENA’s 1.5°C Scenario predicts demand for hydrogen will amount to 74 EJ, 21 per cent of the world’s total final energy consumption by 2050. Many developing countries boast a distinct advantage to tap into the transition to GH2, changing the geo-economic landscape. Countries have announced multi-billion-dollar incentives to promote production and create demand for clean hydrogen. Building this market, however, is replete with challenges with respect to a shortage of renewables, standards, technology, a domestic market in developing countries, trade-infrastructure, high capital combined with lack of investment, and challenges to existing geopolitics of energy trade, inter alia. By addressing key challenges, the proposed session will focus on the policy process to formulate a successful strategy. The discussion on different approaches should offer insights into basic elements to be considered in strategies to enable the transition to a clean hydrogen economy, overcome current bottlenecks and harness its opportunities.
- **Contact:** Smeeta Fokeer, s.fokeer@unido.org

14:45-15:00: TEA/COFFEE

Coffee and refreshments will be available.

15:00-16:30: SIDE EVENT - ROUND 4

UNLEASHING THE GLOBAL POTENTIAL FOR CLEAN HYDROGEN IN PORTS AND THE MARITIME SECTOR (SALAO 1)

- **Category:** Clean Fuels
- **Organizer:** CEM Hydrogen Initiative, MI Hydrogen Mission, Zero-Emission Shipping Mission (MI), CEM Hydrogen Ports Coalition
- **Description:** This event will showcase the potential of hydrogen valleys close to ports and how shipping will play a key role in accelerating the development of a global hydrogen economy.
- **Contact:** Matthijs Soede, Matthijs.SOEDE@ec.europa.eu

CEM-MI COLLABORATION FOR TECHNOLOGY INNOVATION AND IMPLEMENTATION, POLICY, AND REGULATORY ACTIONS TO RAPIDLY DECARBONIZE POWER SYSTEMS (SALAO 2)

- **Category:** Power Sector
- **Organizer:** CEM 21st Century Power Partnership, CEM ISGAN Initiative
- **Description:** The event will showcase collaboration among ISGAN, 21CPP, GPFM, and RD20, as well as the challenges towards power system decarbonization. It will include 1 keynote/scene setting presentation by IEA or IRENA. ISGAN, 21CPP, GPFM, and RD20 will showcase their synergy and innovation strategy, main activities, and related outcomes. A high-level Roundtable on power will be held, addressing implementation, technology innovation, and policy and regulatory actions to rapidly decarbonize power systems. Concluding remarks/key recommendations will be provided by 21CPP and/or ISGAN and/or GPFM and/or RD20 Leads.
- **Contact:** Jong Cheon (Sky) Son, jcson@smartgrid.or.kr

POWERING THE FUTURE: EXPLORING GLOBAL INNOVATIONS IN HYBRID RENEWABLE ENERGY BUSINESS MODELS AND MODELS FOR GRID FLEXIBILITY (SALAO 3)

- **Category:** Power Sector
- **Organizer:** World Bank, ISA
- **Description:** Renewable energy transitions are accelerating globally, playing a pivotal role in this transition is energy storage. A significant trend in this domain is the use of solar and storage hybrid projects, found across regions from Australia to the Middle East to the US. These large-scale initiatives store surplus energy during low-demand periods and distribute it during peak hours, ensuring a more stable energy supply. As nations shift towards renewable energy, effective integration of renewables into the grid becomes crucial. This not only bolsters the resilience of the energy system but also enhances grid reliability, stability, and power quality. Battery Energy Storage Systems (BESS) play a vital role in storing surplus renewable energy and supplying it during peak hours, fostering flexibility in the grid to accommodate higher levels of renewable resources. Technological advances have made lithium-ion batteries increasingly popular due to their high energy density and longevity. Moreover, artificial intelligence is now being used to optimize energy storage systems, analyzing energy consumption patterns and weather forecasts to minimize costs and enhance grid stability. Among various global initiatives supporting this energy transition is the World Bank's Energy Storage Partnership (ESP). ESP aims to expedite the deployment of energy storage and renewable energy integration worldwide, driving rapid innovation across various sectors, including power, transport, and cross-cutting technologies. As the global adoption of renewable energy continues to rise, hybrid storage projects remain a focal

point for future energy development. This continued emphasis paves the way for a more sustainable, reliable, and efficient energy future

- **Contact:** Alexander Hogeveen Rutter, Alex.HogeveenRutter@isolaralliance.org

16:30-16:45: TEA/COFFEE

Coffee and refreshments will be available.

16:45-18:00: SIDE EVENT - ROUND 5

LAUNCH OF THE CEM CLEAN ENERGY MARINE HUBS INITIATIVE (SALAO 1)

- **Category:** Mobility
- **Organizer:** CEM Hubs Initiative, ICS, IAPH, Norway, UAE, Canada, Panama
- **Description:** This side-event will feature the launch of the CEM Clean Energy Marine Hubs Initiative (CEM Hubs), that was announced in the last Ministerial meeting in Pittsburgh. With industry and policy leaders from the sectors of Energy, Shipping, Ports and Finance, the CEM Hubs aims to explore the role of the maritime sector in fast-tracking the deployment of clean energy around the world. Noting that shipping remains the single largest transporter of energy in the world, keeping the pace of the clean energy transition will require significant adjustments to the maritime sector as a whole, and this event will explore these interlinkages and formally launch the CEM Hubs initiative in Ministerial attendance.
- **Contact:** secretariat@mission-innovation.net , mi-india@gov.in

CEM POWER WORKSTREAMS: RELEASE OF ACTION PLANS FOR RAPID POWER SECTOR DECARBONIZATION (SALAO 2)

- **Category:** Power Sector
- **Organizer:** CEM 21st Century Power Partnership,
- **Description:** Following CEM13/GCEAF, several governments signaled their intention to develop Power Sector Decarbonization Action Plans that could be presented at CEM14. 21CPP, in coordination with all CEM power-related workstreams and collaborators, is providing technical support to these committed countries. This side event will highlight the release of Action Plans from this initial cohort of jurisdictions (Australia, Chile, the European Commission, India, and the United Kingdom), which are organized under the framework of “Planning”, “Building”, and “Operating” power systems following the structure of the collaborative report released by CEM power workstreams at CEM13. Come learn how each jurisdiction is addressing key technical and policy challenges based on their different grid characteristics and domestic energy resources, as we build momentum towards creating a second cohort of committed countries to work on Action Plans in advance of CEM15.
- **Contact:** Arent, Doug , Doug.Arent@nrel.gov

ISA EVENT ON GREEN HYDROGEN (SALAO 3)

- **Category:** Clean Fuels
- **Organizer:** ISA
- **Description:** The International Solar Alliance (ISA), the Asian Development Bank (ADB) and the Green Hydrogen Organisation India (GH2 India) are bringing together government, industry, and civil society leaders to discuss how to accelerate the development of green hydrogen standards and certification. Clear standards and trusted certification schemes will be crucial in meeting

ambitious global targets for green hydrogen production, consumption, and export. But we need a robust and cost-effective approach to ensuring green hydrogen is green. The discussion will emphasize the importance of ensuring sustainable and environmentally responsible practices in green hydrogen production and highlight the significance of considering the life cycle impacts of hydrogen projects. This event brings together leading experts with a focus on identifying concrete steps that can be taken to align policy and project development with international good practices. The session aims to achieve the following objectives:

- **Explore the future of hydrogen standards**, highlighting the importance of modularity and forward-thinking approaches for flexible standards that can adapt to evolving technologies and market dynamics.
 - **Emphasize the importance of hydrogen standards** in promoting genuinely environmentally friendly projects that truly reduce emissions.
 - **Highlights the need for transparent and credible criteria for evaluating hydrogen projects** to avoid greenwashing and ensure the effectiveness of emissions reduction efforts.
 - **Probe into the concepts of additionality and sustainability concerning green hydrogen production.** It will explore the notion of additionality, which refers to the environmental benefits achieved beyond business-as-usual practices.
 - **Building on lessons from leading jurisdictions like India, EU and USA.**
- **Contact:** Mridula Bhardwaj, Mridulabhardwaj@isolaralliance.org

AWARDS CEREMONY (ISGAN & EMLA) (BALLROOM L)

- **Category:** Award
- **Organizer:** ISGAN & EMLA
- **Description:** Award Ceremony



2.3 DAY 3 PROGRAMME, FRIDAY 21 JULY

08:00-09:00: REGISTRATION AND BADGING

All delegates are requested to register and collect their badge at the help desk of The Grand Hyatt Hotel. Delegates only need to register only once for the duration of the event.

09:00-18:00: TECHNOLOGY SHOWCASE

The Technology and Cultural Showcase is a special feature that all participants can attend in person. It will feature a *Vehicle Showcase*, consisting of interactive experiences including a zero-emissions vehicle display, as well as an *Innovation Showcase*, consisting of cutting-edge technologies displayed. There will also be a *Cultural Showcase* highlighting the rich cultural diversity of the state. It will take place throughout the day at the Dr. S.P. Mukherjee Indoor Stadium and participants can travel there by shuttle buses that will run at regular intervals from the Grand Hyatt Hotel. For more information, please contact: info@cem-mi-india.org.

09:00-14:30: CEM14 AND MI-8: JOINT MI-CEM MINISTERIAL PLENARY SESSIONS (BY INVITATION) (GRAND BALLROOM)

Participation

Participation in this session would be on an invite only basis and would be limited to HoDs plus 2 from CEM/MI Member Governments, CEM Observer Organizations and MI Key Partners. The latter includes the International Energy Agency (IEA), International Renewable Energy Agency (IRENA), Sustainable Energy for All (SEforALL), the World Bank, World Energy Council (WEC), World Economic Forum (WEF), United Nations Environment Program (UNEP), United Nations Industrial Development Organization (UNIDO), Global Covenant of Mayors for Climate and Energy, Mission Possible Partnership and Centre for Nature and Climate.

Chair

- **Shri Raj Kumar Singh**, Hon'ble Minister of Power, New and Renewable Energy.
- **Dr. Jitendra Singh**, Hon'ble Minister of Science & Technology, Minister of State - Personnel, Public Grievances & Pensions, Department of Atomic Energy and Department of Space & Vice President, CSIR

Summary

The Ministerial Plenary is envisaged to be a joint session for CEM and MI wherein delegates are expected to elaborate on the status of clean energy innovation and deployment in their respective countries. Participants would also be expected to shed light on their vision and future course of action as far as clean energy is concerned. The idea is to ensure that deliberations during CEM-14/MI-8 are outcome oriented and greater importance will be ascribed to actions geared towards achieving mutually identified clean energy objectives. In this regard, delegates would be encouraged to provide their inputs regarding existing gaps and urgent issues that impede the acceleration of clean energy innovation and deployment. Suggestions would also be sought for how these may be circumvented through the CEM/MI engagement.

Objectives	
<p>Ministers and Heads of Delegation come together to:</p> <ul style="list-style-type: none"> • recognize the achievements of MI and CEM and highlight how they have contributed to progress made on clean energy innovation and deployment; • discuss the current status of clean energy but also look ahead to future goals and the urgent actions that need to be taken to achieve a clean energy future; • consider future opportunities to increase impact and the leadership required to accelerate action across the innovation and deployment spectrum; and • reinforce their commitment to MI and CEM going forward and the role that both platforms can play in meeting the needs of the energy transition. 	
Format of the Session	
<p>To maximize the number of interventions and exchanges possible, Ministers and HoDs from international organizations are asked to provide short remarks of 3-4 minutes respectively.</p>	
Agenda	
9:00 – 9:30	Welcome and Opening Remarks
<i>9:00 – 9:07</i>	Address by Shri R.K. Singh, Hon’ble Minister of Power, New and Renewable Energy
<i>9:07 – 9:14</i>	Address by Dr. Jitendra Singh, Hon’ble Minister of Science and Technology
<i>9:14 – 9:20</i>	Address by Dr. Vijay Kumar Saraswat, Member, NITI Aayog
<i>9:20 – 9:25</i>	Address by H.E. Jennifer M. Granholm, Secretary of Energy, Department of Energy, United States
<i>9:25 – 9:30</i>	Address by H.E. Alexandre Silveira de Oliveira, Minister of Mines and Energy, Brazil
9:30 – 10:30	Key Global Highlights on Clean Energy from MI and CEM Secretariats
9:30 – 9:55	Clean Energy Innovation: Key Highlights and Perspectives on the State of Clean Energy Innovation
	The session would expound on the status of clean energy innovation, identify gaps and action areas where concerted efforts by the MI community will be required
9:55 – 10:30	Clean Energy Deployment: Key Highlights and Perspectives on the State of Clean Energy Deployment
	The session would expound on the status of clean energy deployment, identify gaps and action areas where concerted efforts by the CEM community will be required
<i>10:30 – 10:45</i>	<i>Tea/Coffee</i>
10:45 – 13:00	CEM and MI Joint Plenary: Accelerating Clean Energy Together (<i>closed door</i>)*
	The Chair will invite Ministers and Heads of Delegations to share:
	<ul style="list-style-type: none"> • Reflections and expectations from CEM and MI for supercharging clean energy deployment & meeting the innovation needs for energy transition • Elaborate on current vision and future course of action as far as clean energy is concerned. • 3-4 minutes intervention by country delegates and HODs of IOs
13:00 – 13:15	Looking Ahead: from Goa to Brazil

	<ul style="list-style-type: none"> • Remarks from Brazil, H.E. Alexandre Silveira de Oliveira, Minister of Mines and Energy, as future hosts of CEM15 and MI-9 in 2024 • Closing remarks from the Chair
<p>Guiding Questions</p>	
<p><i>When preparing for the discussion, delegates may wish to consider the following questions:</i></p> <p><u><i>On clean energy innovation:</i></u></p> <p>a) <i>What are the biggest gaps in the clean energy landscape and which sectors need to be prioritized from an innovation perspective?</i></p> <p>b) <i>How can MI best support efforts to accelerate clean energy innovation and how would you most like to engage with MI going forward?</i></p> <p><u><i>On clean energy deployment:</i></u></p> <p>c) <i>What are the most urgent issues that need to be addressed in order to accelerate clean energy deployment?</i></p> <p>d) <i>How can the CEM best support efforts to accelerate clean energy deployment and how would you most like to engage in the CEM going forward?</i></p>	
<p>Language</p>	
<p>Meeting will be conducted in English (no interpretation services will be provided by the host).</p>	

13:15-14:30: MINISTERIAL LUNCH

A working lunch is provided to all delegates. Separate lunch will be arranged for Heads of Delegations (Details to follow)

09:00-14:30: PARALLEL SESSIONS ON BUSINESS DIALOGUES AND SIDE EVENTS (PUBLIC)

09:30-10:30: BUSINESS DIALOGUE 1 (B2B) FICCI (SALAO 1)

The key objective of this Dialogue is to discuss and deliberate on the opportunities & challenges and identify the way forward for the Deployment of Clean Energy in India across key industrial sectors like steel, cement, mobility, chemicals, etc. The discussions would focus on the clean energy deployment in the hard-to-abate sectors under the gambit of the Panchamrit Targets envisaged.

09:30-10:30: BUSINESS DIALOGUE 2 (B2B) CII (SALAO 2/3)

This session aims to explore options to secure investment in emerging clean energy/low-carbon technologies such as Battery Energy Storage System (BESS), CCUS and Green Hydrogen, Small Modular Reactors etc. in decarbonizing the hard-to-abate sectors (power, transport, steel and cement), particularly in the Global South. It also aims to address technology access and availability of finance to fund clean energy/low-carbon technologies in emerging markets and developing economies in the Global South.

10:45-13:00: PANEL DISCUSSION DECARBONIZING DEVELOPMENT – EMPOWERING RURAL INDIA (POWER FOUNDATION OF INDIA) (SALAO 1)

The proposed panel discussion shall discuss the scalability, replicability, and sustainability of successful DDG (RE) initiatives, that have demonstrated the ability to transform the life and livelihood of rural people and empowered women. The panel shall also discuss successful and established business models that are scalable and replicable without losing impact on life of the people.

11:00-13:00: BUSINESS DIALOGUE 3 (B2B) NTPC (SALAO 2/3)

A Panel Discussion titled-“US India Energy Sector Leaders’ Panel Discussion” will be hosted by NTPC in collaboration with US India Strategic Partnership Forum (USISPF) on the side-lines of the 14th Clean Energy Ministerial and 8th Mission Innovation (CEM14/MI-8) meeting. The Energy Sector leaders from India and the USA would discuss on the decarbonisation of the energy sector, energy security and the economic growth through the lens of green hydrogen economy.

The panel would bring forth the challenges and the opportunities seen by the two diverse economies. They would also discuss about navigating the path from a subsidy supported sector to a fully matured and sustainable hydrogen economy.

13:15-14:30: LUNCH

A working lunch is provided to all delegates. Separate lunch will be arranged for CEO’s (Details to follow)

14:30-15:45: MINISTER-CEO ROUNDTABLE/HIGH-LEVEL DIALOGUES 1

HIGH-LEVEL DIALOGUE ON SUSTAINABLE COOLING (BALLROOM 1)

- **Access:** All CEM14-MI8 delegates
- **Objectives:** This session aims to enhance public and private sector commitment to the innovation, investment, technology dissemination and policy deployment in order to promote sustainable cooling and to provide access to cooling solutions that are energy-efficient, affordable, and environmentally friendly, while fulfilling the cooling needs of the population.
- **Contact:** Lily Riahi, lily.riahi@un.org

CLOSED-DOOR MINISTER-CEO ROUNDTABLE ON GREEN HYDROGEN (BALLROOM 2)

- **Access:** By invitation only. Participants may bring a +1 and a whisperer interpreter if required.
- **Objectives:** This session aims to identify near-term and long-term goals and actions with respect to the role of green hydrogen in the transition to net-zero emissions. It also aims to identify strategies to augment supply and demand for green hydrogen by addressing barriers to its production and consumption.
- **Contact:** Per Anders Widell, peranders.widell@iea.org

CLOSED-DOOR MINISTER-CEO ROUNDTABLE ON BATTERY STORAGE (CLOSED-DOOR) (BALLROOM 3)

- **Access:** By invitation only. Participants may bring a +1 and a whisperer interpreter if required.
- **Objectives:** This Roundtable will identify the current opportunities and challenges facing the uptake of utility-scale battery storage technologies for electricity grids, by harmonizing the efforts of relevant stakeholders - regulatory policy and market design, manufacturing, innovation and financing - so that the integration of storage systems into existing networks can occur and facilitate a multitude of additional benefits.
- **Contact:** Vikram Singh, vsingh@rmi.org, Akshima Ghate, aghate@rmi.org

HIGH-LEVEL DIALOGUE ON ACCESS TO ENERGY (SALAO 1)

- **Access:** All CEM14-MI8 delegates
- **Objectives:** This session aims to inspire and challenge Ministers and the private sector to raise ambition, develop a common roadmap, and accelerate action toward achieving the UN's SDG 7. They will also deliberate how CEM Workstreams (Empowering People Initiative, Equality Initiative, etc.) and MI Missions (Urban Transitions and Clean Power Future) are together driving progress towards SDG 7.
- **Contact:** Ronald Roesch, Roesch@irena.org Kavita Rai krai@irena.org

15:45-16:00: TEA/COFFEE

Coffee and refreshments will be available.

16:00-17:15: MINISTER-CEO ROUNDTABLE/HIGH-LEVEL DIALOGUES 2

HIGH-LEVEL DIALOGUE ONE SUN ONE WORLD ONE GRID (OSOWOG) (BALLROOM 1)

- **Access:** All CEM14-MI8 delegates
- **Objectives:** The session aims to accelerate the engagement between potential countries by increasing political actions to ensure the effective deployment of the One Sun, One World, One Grid (OSOWOG) initiative. It also aims to identify ways to increase the participation of the public and private sectors to promote research and development activities, including the conduction of technical feasibility tests.
- **Contact:** Pankaj Kurana, pankaj_k@isolaralliance.org

CLOSED-DOOR MINISTER-CEO ROUNDTABLE ON BIOFUELS (BALLROOM 2)

- **Access:** By invitation only. Participants may bring a +1 and a whisperer interpreter if required.
- **Objectives:** This session aims to identify approaches to enhance supply and demand for biofuels by addressing their production and consumption barriers. It also aims to identify policy frameworks associated with biofuels to leverage benefits emerging from the creation of bio-economies
- **Contact:** Gerard Ostheimer, gerard.ostheimer@biofutureworkshop.com

CLOSED-DOOR MINISTER-CEO ROUNDTABLE ON CLEAN ENERGY MARINE HUBS (BALLROOM 3)

- **Access:** All CEM14-MI8 delegates
- **Objectives:** The session aims to identify clean energy marine hubs that aim to accelerate large scale renewable and clean energy production close to ports and industrial clusters, for domestic as well as international consumption. It envisages to bring together public and private sector across the entire maritime and energy value chains to share knowledge and best practices to de-risk investments towards deployment and transport of low carbon/green fuels via shipping mode.
- **Contact:** Nelson Mojarro, nelson.mojarro@ics-shipping.org

HIGH-LEVEL DIALOGUE ON INDUSTRY DECARBONISATION (SALAO 1)

- **Access:** All CEM14-MI8 delegates
- **Objectives:** The session aims to identify innovations and technologies to enhance deployment of cost-effective solutions in the hard to abate sectors and identify strategies to mobilize finance for industrial decarbonisation approaches. The session also envisages to discuss policies to create market pull for the demand of low-carbon industrial products.
- **Contact:** Rana Ghoneim, R.GHONEIM@unido.org Fiona Skinner f.skinner@unido.org

PANEL DISCUSSION: GREEN FINANCING (REC) (16:00-18:00)

The event will comprise deliberation on Green Financing which involves thought sharing by eminent speakers in the form of a panel discussion on devising innovative ways to match the funding requirement in time. The proposed event will be a useful insight for policy, Investments and further development of the power sector.

17:15-17:30: TEA/COFFEE

Coffee and refreshments will be available.

17:30-18:30: LAUNCHES, FIRE SIDE CHAT, PRESS BRIEFING

17:30-18:30: LAUNCHES AND ANNOUNCEMENTS (BALLROOM 1)

This session will recognize outstanding individuals, companies and projects for their efforts in clean energy transition. Highlights will also include prominent announcements, releases, etc.

17:30-18:30: FIRE SIDE CHAT (BALLROOM 2)

This session will elaborate personal and interactive discussion involving a moderator and guest and allow audience to gain insights into the guest case studies and personal stories on various topics.

17:30-18:30: PRESS BRIEFING (BALLROOM 3)

The press briefing will take place on site. Accredited journalists will have access to the press briefing in the Grand Hyatt press room (Ballroom 3) and will be able to ask questions in person. Further instructions will be communicated by the host.

19:00 ONWARDS: DINNER

TBC



2.4 DAY 4 PROGRAMME, SATURDAY 22 JULY

07:30-09:00: REGISTRATION AND BADGING

All delegates are requested to register and collect their badge at the help desk of the Grand Hyatt Hotel. Delegates only need to register once for the duration of the event.

09:00-18:00: TECHNOLOGY SHOWCASE

The Technology and Cultural Showcase is a special feature that all participants can attend in person. It will feature a *Vehicle Showcase*, consisting of interactive experiences including a zero-emissions vehicle display, as well as an *Innovation Showcase*, consisting of cutting-edge technologies displayed. There will also be a *Cultural Showcase* highlighting the rich cultural diversity of the state. It will take place throughout the day at the DR. S.P. Mukherjee Indoor Stadium and participants can travel there by shuttle buses that will run at regular intervals from the Grand Hyatt Hotel. For more information, please contact: info@cem-mi-india.org.

09:00-10:30: SIDE EVENT - ROUND 1

SOLAR LIGHTHOUSE IN AFRICA: LESSONS LEARNED FROM INDIA'S SOLAR PROGRAMS (SALAO 1)

- **Category:** Power Sector
- **Organizer:** ISA, World Bank
- **Description:** Africa's electricity demand is anticipated to triple by the year 2030. Despite this growing need, less than 40% of the continent's population currently has access to electricity. This presents a significant challenge but also a significant opportunity for growth and expansion in the energy sector. A strategic approach to this challenge involves substantial investment in solar technologies. Innovative solar solutions such as rooftop solar installations and large-scale solar parks offer unique benefits to the energy ecosystem. They have the potential to reduce transmission and distribution losses, bypass the need for commercial investments tied to traditional transmission systems, and most importantly, provide consistent, reliable power for consumers. However, addressing Africa's energy needs, calls for an ecosystem-based approach to energy access. This holistic perspective acknowledges the complete business ecosystem, encompassing not only technology but also enterprise and end-user finance, capacity building, and institutional framework. It also includes policymaking and the livelihood aspects of the solar energy sector. In line with this, the World Bank-ISA Lighthouse Initiative aims to replicate the growth of the solar sector in Africa. This initiative brings together key stakeholders within the solar energy ecosystem to share success factors, learnings, and to discuss potential challenges and opportunities. Through this collaboration, the initiative aims to identify key gaps, consolidate valuable insights, and actively engage with entrepreneurs, investors, donors, civil society, and policymakers. The ultimate goal of these collective efforts is to promote the growth of the solar sector in Africa, thereby addressing the continent's electricity demand while fostering socio-economic development.
- **Contact:** Alexander Hogeveen Rutter, Alex.HogeveenRutter@isolaralliance.org

PROMOTING LIFESTYLE CHANGES FOR CLIMATE NEUTRALITY AND FAIR ENERGY DEMAND REDUCTION (SALAO 2)

- **Category:** People
- **Organizer:** European Commission
- **Description:** Tackling climate change is a complex, enduring challenge for generations. The response to this challenge cannot neglect the important question of energy demand reduction and behavioural changes necessary to reduce global emissions. Lifestyle changes are a key enabler which can lead to a reduction of greenhouse gas emissions by 40-70% until 2050. Such changes concern the use and repair of goods, transport choices, work organisation, energy savings, sustainable food, waste, and many more. The side event will explore this topic, supporting an open and constructive dialogue and exchange on experiences, best practices and policy recommendations, findings from research and behavioural living labs, while considering different situations and challenges across sectors and countries.
- **Contact:** Pablo Jacome Alvarez, Pablo.JACOME-ALVAREZ@ec.europa.eu

ROLE OF RESPONSIBLE STEEL STANDARD AND CERTIFICATION IN IMPACTING POLICY, ENERGY TRANSITION, FINANCE TO ACCELERATE STEEL DECARBONIZATION IN INDIA. (SALAO 2)

- **Category:** Industry Decarbonisation
- **Organizer:** ResponsibleSteel
- **Description:** Decarbonising the steel industry is critical for India to meet its Nationally Determined Contributions. The ResponsibleSteel standard, a technology-agnostic international standard, is best suited to address the policy, energy transition, and finance levers required for decarbonising steel production. The ResponsibleSteel certification program can demonstrate the carbon intensity of steel as required by international policies such as the CBAM. However, India faces challenges such as limited scrap availability, a lack of access to cost-effective natural gas, and high grid intensity due to coal reliance, necessitating a multifaceted policy support and intervention approach to facilitate steel industry decarbonisation. The ResponsibleSteel event structured with presentations and panel discussions with supply and demand side, government, policy, trade associations and academic stakeholders will highlight the standard's role in achieving equitable and just industry transitions in India. Overall, the ResponsibleSteel standard provides an effective means to tackle India's steel industry challenges and demonstrate its commitment to sustainable decarbonisation.
- **Contact:** Shivakumar Kuppuswamy, shiv@responsiblesteel.org

ZERO-EMISSION TRUCK HIGH LEVEL AMBITION GROUP FOR INDIA (BALLROOM 3)

- **Category:** Mobility
- **Organizer:** CEM Drive to Zero Campaign, India ZEV Research Centre UC Davis
- **Description:** CALSTART/Drive to Zero in partnership with UC Davis and Climate Group launches the Zero-Emission Truck (ZET) High Level Ambition Group for India. The ZET HLAG will bring together CXOs from India's largest commercial vehicle and component manufacturers and infrastructure providers to support the transition to electric trucking, unlock strategic market access and achieve scale. It will highlight industry commitments and investment roadmaps towards electric trucking. There is growing momentum among logistics and fleet operators to understand the potential for electric trucking across end-use applications. As the demand side creates market signals for electric trucks, it will be critical to understand from MHDV manufacturers data on electric truck technology development, costs, product availability, market readiness as well as policy and regulatory support. The ZET HLAG will be the first of its kind in India to engage with OEMs. The key objectives of the HLAG are:
 1. Highlight industry commitments and investment towards EV technologies including trucking and raise ambition.
 2. Develop a comprehensive policy and technology roadmap for transitioning the Indian MHDV industry to zero-emission technologies, including incentives and schemes to support ZET adoption.
 3. Promote international collaboration between the public and private sectors to unlock access to technology and finance for ZET transitions.
 4. Respond effectively to market signals by the demand side for electric trucks
- **Contact:** Stephanie Kodish, skoidsh@calstart.org

INTERNATIONAL COOPERATION FOR A RESILIENT AND DECARBONIZED BUILDING SECTOR: NEAR ZERO EMISSION, EMISSION-FREE/ENERGY POSITIVE (BALLROOM 2)

- **Category:** Energy Efficiency
- **Organizer:** France, India Smart Grid Forum
- **Description:** This Side Event will explore international collaboration in the building sector, identify gaps and areas for urgent action and discuss next steps to accelerate progress towards near zero emission and resilient buildings. Buildings require first passive and climate-proof design complemented by sustainable energy and low-cost efficient equipment to make them energy positive buildings. Discussions will include: - Overview of existing landscape for action on buildings decarbonisation - Presentation of the "Call for a Buildings Breakthrough at COP 27" and follow up - Architecture and Energy Systems for Energy Positive Emission-Free Buildings and Campuses - Roadmap towards Energy Positive and Emission-Free Buildings and Campuses - Discussion of the preliminary recommendations in the sector for the upcoming 2023 Breakthrough Agenda Report, followed by exchange on potential related international actions - Discussion of an opportunity for an "International Summit on Buildings and Climate" in 2024. Discussion on goals and potential outputs
- **Contact:** Reena Suri, reena.suri@indiasmartgrid.org

10:30-10:45: TEA/COFFEE

Coffee and refreshments will be available.

10:45-12:15: SIDE EVENT - ROUND 2

FLEXIBLE MARKETPLACE FOR GREEN ENERGY TRADING AMONGST LOCAL ENERGY COMMUNITIES (SALAO 1)

- **Category:** Power Sector
- **Organizer:** India Smart Grid Forum
- **Description:** The booming demand and increased growth of Distributed Energy Resources (DERs) such as solar photovoltaic (PV) systems, batteries, microgrids, electric vehicle charging and embedded networks has moved the power balance from central authorities to the edges of the grid, which people govern. P2P energy trading empowers 'prosumers' to trade green energy in local and communities mutually agreed prices. P2P energy trading is implemented through smart contracts on blockchain platform that self-execute when specified conditions are met. Promotion of P2P trading of green energy will help scaleup RE connected to the grid faster. ISGF has successfully implemented three pilot projects on P2P trading in India. Uttar Pradesh Electricity Regulatory Commission (UPERC) has issued regulations for promotion of P2P trading of solar energy in April 2023, which is the first of such regulations anywhere in the world (https://www.uperc.org/App_File/P2P_Guidelines_UPERC-pdf416202393941PM.pdf). ISGF is delighted to conduct this event as a CEM14 Side Event.
- **Contact:** Reena Suri, reena.suri@indiasmartgrid.org

ACCELERATING THE ENERGY TRANSITION IN ASIA'S TRANSPORT THROUGH SUSTAINABLE AND EQUITABLE E-MOBILITY (SALAO 2)

- **Category:** Mobility
- **Organizer:** NITI Aayog , United States Department of State , LG-CTA and NDC-TIA partners
- **Description:** Despite its low per capita carbon emissions, Asia accounted for 39% of global transport emissions in 2021, a 36% growth from 2020. Given the rapid urbanization and economic development, Asia was home to 95% of the global electric vehicles fleet in 2021. It is projected to account for one third of global passenger transport kilometers and two thirds of global surface freight transport kilometers by 2030. On the energy front, the region is forecasted to achieve a renewable capacity of 63% by 2035. It is therefore imperative to focus efforts on emerging Asia-Pacific economies to ensure an equitable scale-up of sustainable, low-carbon transport and energy solutions. This side event will bring government representatives and practitioners to discuss efforts to harness and accelerate transport decarbonization in the region through initiatives like the NDC Transport Initiative for Asia and the Leadership Group for Clean Transport in Asia.
- Roundtable discussion I - Sharing National Pathways for Asia Regional Decarbonization
 - How countries align national/regional decarbonization strategies with global aspirations?
 - How countries accelerate Electric Vehicle (EV) deployment through targets, policies, and regulations (e.g. tightening CO2 and fuel economy standards)?
 - How countries move from target setting to implementation (e.g transport climate action plans and reporting systems)?
- Roundtable discussion II – EV battery circularity and charging infrastructure: Making the transition sustainable
 - How can recycling and circularity of EV batteries reduce demand for extraction of critical minerals?
 - How can regional cooperation and policy framework for manufacture of EVs and charging infrastructure accelerate transport decarbonization.
- **Contact:** Kuldeep Sharma, kuldeep.sharma@giz.de

CAPACITY BUILDING IN POWER SECTOR (SALAO 3)

- **Category:** People
- **Organizer:** PSSC India
- **Description:** Clean Energy Transition will result in requirement of skills transition in all related sectors and segments. Many new avenues of employment will open up. Development of Education modules for youth & new workforce entrants as well as reskilling programmes for existing workforce is need of the hour. There is a need for discussion on the vital issue of Capacity building for the clean energy transition involving all stakeholders and development of programmes and strategy to address the workforce transition and employment needs of the industry. Nations are working towards providing a platform for strong educational and skills training programmes to meet the challenges of the workforce transition. Hence, skillsets that meet the changing demands of industry and foster human resources necessary for energy transition need to be discussed and advanced.
- **Contact:** Dr. V K Singh CEO, ceo@psscindia.org

UNLEASHING RENEWABLE ENERGY'S FULL POTENTIAL: SETTING A GLOBAL TARGET (BALLROOM 3)

- **Category:** Power Sector
- **Organizer:** IRENA, Global Renewables Alliance
- **Description:** At least 43 governments and international organizations such as IRENA and the EU have voiced their support to set a worldwide target for renewable energy at the COP28 conference in Dubai. The most recent flagship reports released by IRENA and IEA point out the need to reach at least 1TW annual capacity additions by 2030 in order to stay on the 1.5°C pathway. This roundtable discussion will bring together governments, international institutions, industry and NGOs to discuss the operationalization of a global target necessary for 1.5°C, as well as investments and support needed to reach it.
- **Contact:** Máté Heisz, m.heisz@solarpowereurope.org

IMPERATIVE OF HYDROGEN ECONOMY FOR INDIA AND THE WORLD (BALLROOM 2)

- **Category:** Clean Fuels
- **Organizer:** NTPC
- **Description:** The panel discussion would have representatives from various ministries associated with NHM, industry leaders from both public and private sectors discussing the dichotomy of achieving growth and decarbonising in a big way. The panellists would discuss on the new opportunities the NHM presents for the industry, institutions and lenders and current roadblocks being faced by them.
- **Contact:** Mohit Bhargava, MOHITBHARGAVA@NTPC.CO.IN

12:15-13:15: LUNCH

A working lunch is provided to all delegates.

13:15-14:45: SIDE EVENT - ROUND 3

ACCELERATING INDIA'S TRANSITION TOWARDS NET ZERO THROUGH ENERGY EFFICIENCY, SUSTAINABLE COOLING & MOBILITY (SALAO 1)

- **Category:** Energy Efficiency
- **Organizer:** EESL
- **Description:** EESL will offer integrated solutions that prioritise impact and benefit the public sector and society. Its programs will also align with the Government of India's LiFE initiative, integrating the value of energy efficiency into a low-carbon lifestyle. The objective of the event is to unveil the new EESL strategy and announce upcoming activities.
- **Contact:** Animesh Mishraa, amishra@eesl.co.in

STRENGTHENING THE GLOBAL DEMAND SIGNAL FOR GREEN STEEL, CEMENT AND CONCRETE (SALAO 2)

- **Category:** Industry Decarbonisation
- **Organizer:** CEM Industrial Deep-decarbonisation Initiative, UNIDO
- **Description:** This event aims to foster an open discussion amongst high-level public and private sector representatives demand commitments as a tool for the decarbonization of steel, cement and concrete, particularly in key emerging economies such as India. Beyond heightened awareness, the event will produce a list potential joint actions to jointly be undertaken by IDDI and other demand-side initiatives such as the First Movers Coalition, SteelZero and ConcreteZero to support and grow public and private demand commitments throughout the year. This event is also a key milestone on the path to COP28. The IDDI, FMC and SteelZero are coordinating initiatives under the 2023 Steel Breakthrough Priority Actions, mandated to rapidly grow demand commitments for low and near-zero emission steel, by working together to develop packages of coordinated high-quality public and private procurement and purchase agreements for these products by COP28.
- **Contact:** Fiona Skinner, f.skinner@unido.org

KEY CHALLENGES OF THIS DECADE TO TRANSFORM CLEAN ENERGY POLICIES: CEM WORKSTREAMS PERSPECTIVES (SALAO 3)

- **Category:** Cross-cutting
- **Organizer:** CEM CESC
- **Description:** As the workstream of CEM that helps governments, advisors, and analysts create policies and programs that advance the deployment of clean energy technologies, we plan to bring together different CEM workstreams to discuss major policy challenges faced by each initiative in pushing the clean energy solutions with the focus on developing countries. Financing for clean energy solutions deployment, medium- and long-term energy scenarios, enabling power system flexibility, grid and transmission system extension and modernization, carbon capture utilization and storage are among the key challenges of the next decade. Therefore, we intend to focus on the relevant workstreams to these challenges. The event will be a panel discussion with policy experts exploring policy design, implementation, evaluation and monitoring related challenges of their respective workstreams. We believe this would present an opportunity to CESC to learn from the challenges and strengthen its expert's database to support developing countries more effectively.
- **Contact:** Jal Desai, jal.desai@nrel.gov

EPI: COLLABORATIVE STRATEGIES FOR JOBS AND SKILLS FOR JUST CLEAN ENERGY TRANSITIONS (BALLROOM 3)

- **Category:** People
- **Organizer:** CEM Empowering People Initiative,
- **Description:** The Empowering People Initiative complements all CEM workstreams by focusing on the critical socio-economic elements needed to fuel just and equitable transitions. This interactive panel session with regional and international partners will examine strategies to support the workforce, businesses, and consumers in the transition to a carbon-neutral, circular, and sustainable economy. We will discuss what is needed for effective collaboration to develop policies and programs governments and funders can leverage to scale equitable solutions. The session will include a focus on clean energy jobs and skills requirements. Outcomes will include concrete action steps participants can leverage in their countries and regions to coordinate stakeholders and remove barriers to inclusion.
- **Contact:** Laure-Jeanne Davignon, laurejeanne@gmail.com

OFFSHORE WIND POWER EVACUATION THROUGH SUBMARINE POWER CABLE (BALLROOM 2)

- **Category:** Power Sector
- **Organizer:** PGCIL
- **Description:** Towards fulfilling target of 500GW non-fossil fuel installed capacity by 2030, GoI has given emphasis for development of offshore wind capacity of about 37GW by 2030 mainly off the coast of Tamil Nadu and Gujarat.
- It is understood that about 1 GW capacity in Gujarat off the coast would be bidded out by 2023. Bidding for leasing out offshore wind energy blocks equivalent to 4.0 GW capacity off the coast of Tamil Nadu is likely to be by 2023-24. In India, first time offshore wind generation projects are envisaged will require development of evacuation system covering Offshore substation and undersea export power cable (AC) for the first 500MW capacity each in Gujarat and Tamil Nadu.
- Scheme for around 10GW Off Shore Wind farms have been identified. Considering the emerging area for evacuation of upcoming off shore wind energy project in Gujarat and Tamil Nadu Coastal area, the subject workshop is aimed to provide insights related to the following key areas-
- i. Submarine power cable connecting offshore platform with Land Station
- ii. Geo Technical survey for undersea power cable laying Off shore platforms and Electrical Equipment
- iii. Off shore platforms and Electrical Equipment
- **Contact:** Shouvik Bhattacharya, shouvik@powergrid.in

14:45-15:00: TEA/COFFEE

Coffee and refreshments will be available.

15:00-16:30: SIDE EVENT - ROUND 4

LAUNCH OF THE INTERNATIONAL HYDROGEN TRADE FORUM (SALAO 1)

- **Category:** Clean Fuels
- **Organizer:** CEM Hydrogen Initiative, Netherlands
- **Description:** Official launch event of the forum with presence of High-Level representatives from The Netherlands and United Arab Emirates as co-hosts of the first edition of the forum. Participation of the CEM-secretariat and coordinators of the CEM Hydrogen Initiative (CEM H2I) and the forum is expected. During this event a Joint Declaration will be signed to officially launch the forum. The Global Hydrogen Trade Forum is an upgrading of the current Hydrogen Trade Working Group under the CEM-H2I and it will aim to bring together hydrogen importing and exporting countries to have a more inclusive discussion, including non-CEM countries.
- **Contact:** Carla Robledo, c.b.robledo@minezk.nl Per Anders-Widell per.anders-widell@iea.org

CROSS-CUTTING POLICY LEVERS FOR HARD-TO-ABATE SECTORS (SALAO 2)

- **Category:** Industry Decarbonisation
- **Organizer:** MPP (Mission Possible Partnership), World Economic Forum
- **Description:** Collectively, hard-to-abate sectors (steel, cement, trucking, shipping, chemicals, aluminum and aviation) are responsible for one third of global energy emissions. The Mission Possible Partnership's Transition Strategies demonstrate that reaching net zero in these sectors by 2050 is possible, but will require coordinated efforts by industry, investors, and policymakers. A key priority this decade is to accelerate early projects from concept to implementation. In the session we will discuss:
 - Transition pathways in the hard-to-abate sectors and the importance of unlocking first projects in the 2020s;
 - The challenges that need to be overcome to achieve this; and
 - Five or six cross-cutting policy levers that can support the transition.We have identified the following broad categories of policies that can stimulate this change:
 - Providing a long-term trajectory through targets and bans;
 - Creating early demand and differentiated markets for green products through mandates and public procurement;
 - Making fossil incumbents less competitive through carbon taxation and border tariffs and removal of fossil fuel subsidies;
 - Derisking investments and reducing the costs of green technologies through financial support; and
 - Clarifying and improving regulation through fit-for-purpose planning and permitting procedures and harmonized standards, definitions and certification schemes.The levers will be drawn from the categories above, but we will focus on a few representative examples (e.g. green ammonia mandates to stimulate early industrial scale green hydrogen demand). Our aim is to catalyze ideas about how to use policy to support early action. We will follow up on the session with a paper summarizing key takeaways.
- **Contact:** KEARNEY Sharon, sharon.kearney@ec.europa.eu

GLOBAL POLICY MAKERS DIALOGUE ON AGRI-RENEWABLES, SECURING WATER-ENERGY-FOOD NEXUS FOR A SUSTAINABLE WORLD (SALAO 3)

- **Category:** Power Sector
- **Organizer:** IRENA, Global Solar Council
- **Description:** Agriculture is a critical sector for global food security and rural development. However, agriculture is also a significant contributor to greenhouse gas emissions and climate change due to its heavy reliance on fossil fuels. Renewable energy provides an opportunity to decarbonize agriculture and reduce its environmental impact. Our upcoming event will explore the potential of solar energy in agribusiness, including its ability to promote sustainable agriculture and increase rural energy access. We'll discuss the complexities of the energy-food-water nexus and how renewable energy can help address these challenges. Additionally, we'll highlight the importance of policy and regulatory frameworks in promoting renewable energy investments and stakeholder collaboration. The attendees will gain valuable insights from experts in the agriculture and renewable energy sectors that will present the latest innovations and best practices in solar energy for agribusiness.
- **Contact:** Subrahmanyam Pulipaka (CEO NSEFI), pulipaka@nsefi.in

HIGH-LEVEL ROUNDTABLE: ACCELERATING OFFSHORE WIND DEPLOYMENT (BALLROOM 3)

- **Category:** Power Sector
- **Organizer:** GWEC, Ocean Energy Pathway
- **Description:** IRENA has acknowledged 2000 GW of global offshore wind (OSW) deployment by mid-century as pivotal to achieving the Paris Agreement goals. However, slow permitting regimes & complex clearance mechanisms continue to adversely impact project timelines, supply chain commitments, and eventually the cost of financing OSW projects. In addition, supply chain resilience and infrastructure availability are among the priorities for enthusiastic growth in capacity addition across geographies, particularly in emerging and evolving markets. The proposed closed-door round table shall facilitate robust dialogue between government and business and thereby facilitate consensus building and synergies that are key to de-risking OSW projects, enhancing the competitiveness of bids, resilience building of supply chains, and lowering the cost of financing among others. The event aims at convening high-level dialogue which supports accelerated deployment of OSW.
- **Contact:** Martand Shardul, martand.shardul@gwec.net

FINANCING INDUSTRY DECARBONIZATION FOR JUST TRANSITION (BALLROOM 2)

- **Category:** Industry Decarbonisation
- **Organizer:** Climate Investment Funds, CEM Industrial Deep-decarbonisation Initiative
- **Description:** Narrowing the financing gap for deep decarbonization efforts in hard-to-abate sectors (ex. iron and steel, cement and aluminum, pulp and paper, chemicals, shipping) is essential to helping developing countries make a just transition to zero-carbon growth paths. Equally, it is critical to channel concessional resources where they can be most effective and provide a transformational effect that can lead to replication and scaled up investments across the developing world. This event will explore enhanced coordination and targeted finance amongst partners and initiatives to maximize development impact. In addition, it will convene government, industry, and MDBs to discuss where concessional resources can be channeled in support of industry decarbonization globally.
- **Contact:** Anne Lillis, alillis@worldbank.org

16:30-16:45: TEA/COFFEE

Coffee and refreshments will be available.

16:45-18:00: SIDE EVENT - ROUND 5

COOLING THE CITIES OF FUTURE (SALAO 2)

- **Category:** Clean Fuels
- **Organizer:** GIZ & AEEE
- **Description:** The demand for space cooling is expected to triple by 2050, resulting in increased energy consumption and greenhouse gas emissions. Cooling is essential for G20 nations due to rising temperatures and high energy consumption. District Cooling System (DCS) has been identified as a potential solution that can help by providing centralized, efficient cooling solutions, reducing the need for individual systems, and promoting sustainability. In India, the Bureau of Energy Efficiency (BEE) is leading to promote uptake of DCS with implementation support from GIZ, and knowledge support from the Alliance for an Energy Efficient Economy (AEEE) and KPMG. DC guidelines have been prepared under the program and would be launched during the event. The guidelines provide guidance on planning, construction, business models, and billing systems of DCS. The guidelines will benefit policy makers, state and city development authorities, developers, and investors, facilitating the growth of DCS.
- **Contact:** Satish Kumar, satish@aeee.in

GLOBAL COLLABORATION ON ENERGY STORAGE FOR CLEAN ENERGY AND CLEAN TRANSPORTATION (SALAO 3)

- **Category:** Power Sector
- **Organizer:** India Energy Storage Alliance (IESA)
- **Description:** With our event, we want to deliberate the level of deliberations required for enabling the uptake of new age critical clean energy technologies. We want to highlight the importance of research and development, creation of demand markets, reliability of regulatory landscape and long-term national commitments to attract investments on a sustainable basis. Some of the topics which we seek to cover in our discussion points will show how the world is steadily decoupling from fossil fuels and the actions being taken by countries both individually and collaboratively to catalyse clean energy-based economy. Significant investments in these new-age technologies would also lead to further innovations in end-use sectors including hard-to-abate sectors, EVs, battery storage, etc. We also want to highlight how all these new-age technologies need to be supported by intensive and innovative financing mechanisms to fulfil nationally determined energy transition goals.
- **Contact:** Cassius Castellino, cassius.castellino@ces-ltd.com

18:00 ONWARDS: END OF EVENT

3 ANNEX 1: HEADS OF DELEGATIONS & SENIOR REPRESENTATIVES

Table 1: Registered Head of Delegations from CEM/MI Members (Registrations as of 10 July 2023)

Country	First Name	Family Name	Role	Institution
Australia	Christopher	Bowen	Minister	Minister of Climate Change of Energy
Austria	Sabine	Mitter	Civil Servant	Federal Ministry of Climate Action, Environment, Energy, Mobility, Innovation and Technology
Brazil	Alexandre	Silveira de Oliveira	Minister	Ministry of Mines and Energy
Canada	Frank	Des Rosiers	Assistant Deputy Minister	Natural Resources of Canada
Chile	Carlos	Toro	Head of Energy Planning and New Technologies Unit	Ministry of Energy
China (MOST)	Hongshan	Gao	Minister Counsellor	Chinese Embassy in India
China (NEA)	Jingdong	Ren	Vice Administrator	National Energy Administration of China
Denmark	Dan	Jorgensen	Minister of Development Cooperation and Global Climate Policy	Ministry of Climate and Energy and Utilities
European Union	Kadri	Simson	Commissioner for Energy	European Commission
Finland	Mika	Lintilla	Senior Specialist	Ministry of Economic Affairs and Employment
France	Fabien	Delafalize	Head of Mission Innovation	Ministry of Energy Transition
Germany	Stefan	Wenzel	Parliamentary State Secretary	Federal Ministry for Economic Affairs and Climate Action

India (CEM)	Raj Kumar	Singh	Minister	Ministry of Power; Ministry of New and Renewable Energy
India (MI)	Jitendra	Singh	Minister of State (Independent Charge)	Ministry of Science and Technology; Ministry of Earth Sciences
Indonesia	Arifin	Tasrif	Minister	Ministry of Energy and Mineral Resources
Japan	Nishimura	Yasutoshi	Minister	Ministry of Economy, Trade and Industry
Netherlands	Sandor	Gaastra	Vice Minister	Ministry of Economic Affairs and Climate Policy
Norway	William	Christensen	Deputy Director General	Ministry of Petroleum and Energy
Saudi Arabia	HRH Prince Abdulaziz	Bin Salman Al Saud	Energy Minister	The Kingdom of Saudi Arabia's Energy Ministry
South Africa	Samson	Gwede Mantashe	Minister	Ministry of Minerals and Energy
Spain (CEM)	Miguel	Gonzalez Suela	Undersecretary	Ministry of Ecological Transition & the Demographic Challenge
Spain (MI)	Ignacio	Garcia Fenoll	Deputy General Director	Minister of Science and Innovation
United Kingdom	Grant	Shapps	Secretary of State for Energy Security and Net Zero	Department for Energy Security and Net Zero
United States	Jennifer	Granholm	Secretary of Energy	Department of Energy

Table 2: Registered Senior Representatives from IOs and Partner (Registrations as of 10 July 2023)

International Organization	First Name	Family Name	Role
International Energy Agency	Fatih	Biröl	Executive Director
International Renewable Energy Agency	Francesco	La Camera	Director General
Sustainable Energy for All	Damilola	Ogunbiyi	Chief Executive Officer and Special Representative of UN secretary-General
United Nations Environment Programme	Ligia	Noronha	Assistant Secretary General and Head of the New York Office
United Nations Industrial Development Organization	Ciyong	Zou	Deputy to Director General and Managing Director
Global Covenant of Mayors for Climate and Energy	Giorgia	Rambelli	Director

ANNEX 1: HEADS OF DELEGATIONS & SENIOR REPRESENTATIVES

Mission Possible Partnership	Sanjeev	Paul	Senior Fellow
World Economic Forum	Roberto	Bocca	Member of Executive Committee, Head of Centre for Energy and Materials
World Bank	Demetrios	Papathanasiou	Global Director for Energy and Extractives



Welcome you all to the
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8th Mission Innovation Meeting!**



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